

- c. Competency in reading as demonstrated by:
- (1) Completion of READ 015 with a grade of C or higher, or assessment into READ 100, or,
  - (2) Completion of all courses required to satisfy minimum graduation requirements in Categories I, II and III as listed below with an overall grade point average of 2.00 or higher.

6. Complete 24 to 26 of the 60 semester units needed for graduation from the five subject categories as listed below:

**Category I: Natural Science (minimum: 4 semester units if a laboratory is included; otherwise 6 semester units).** Courses in the following subjects carry credit for Natural Science:

ANTHRO 106  
 ASTRON 120, 123, 125  
 BIOL 050, 100, 102, 104, 108, 109, 123, 201, 203, 250, 260, 261, 270  
 CHEM 101, 104, 110, 150, 150H  
 FCS 162  
 GEOG 110, 111, 114, 285  
 GEOL 100, 101, 111, 112, 122, 250, 251  
 OCEAN 100, 101, 111  
 PHYSIC 101, 150A, 150B, 200  
 PS 101

**Category II: Social and Behavioral Science (minimum: 6 semester units; the two courses must be from two different subject areas).** Courses in the following subjects carry credit for Social and Behavioral Sciences:

ANTHRO 100, 102, 107  
 CD 105, 105H  
 ECON 100, 200, 200H, 201, 285  
 GEOG 102, 106, 120  
 HIST 100, 101, 107, 110, 124, 126, 135, 137, 138, 139, 140, 145, 150, 153, 160, 161, 180  
 POLIT 100, 110, 110H  
 PSYCH 052, 100, 100H, 102, 103, 110, 111, 112, 118  
 SOC 100, 100H, 110, 130, 141, 145, 150, 285  
 SPEECH 135, 174, 176

**Category III: Humanities (minimum: 6 semester units; the two courses must be from different subject areas with no more than three semester units within the category of Applied Courses as identified below).** Courses in the following subjects carry credit for Humanities:

ANTHRO 109, 110  
 ARCH 145, 146  
 ART 100, 102, 103, 105, 107, 108, 109, 110, 111, 285  
 ASL 109, 110, 111, 112  
 CD 140  
 DANCE 200, 203  
 ENGL 055, 063, 065, 151, 153, 155, 161, 163, 165, 175, 232, 260, 261, 270, 271, 275, 280, 281  
 FRENCH 101, 102  
 HIST 170, 171  
 MUS 100, 101, 102, 104, 105, 106, 107, 121, 122, 201, 202, 285  
 PHIL 101, 101H, 105, 112, 180  
 RELIG 100, 100H, 101, 110, 135, 150, 175, 176, 180  
 RTVF 100  
 SPAN 101, 102, 103, 103H, 104, 140, 157, 158

SPEECH 110, 120  
 THART 100, 110

**Applied Courses (Humanities)**

ART 120, 124X4, 126X4, 132X4, 145, 148, 149, 150, 158X4, 161, 164X4, 175X4, 180, 212X4, 240X4, 270X4  
 MUS 101L, 102L, 103, 117X4, 126, 130, 131, 133, 134, 136, 141X4, 150X4, 152X4, 154X4, 156X4, 158X4, 160X2, 162X4, 168X4, 170X4, 171X4, 174X4, 176X4, 178X4, 201L, 202L  
 THART 114X4, 120, 135, 160X4, 165

**Category IV: Communication and Analytical Thinking (minimum: 6 semester units).**

1. English composition is required of all students. Courses meeting this requirement are ENGL 015 or 101 or 101H.
2. Students may select from the following courses to complete the other portion of the requirement:

BUSCAL 200, 208  
 ECON 208  
 ENGL 102, 102H  
 MATH 095 and above  
 PHIL 102, 103  
 READ 100, 102  
 SPEECH 100, 100H, 111, 125, 130, 140

**Category V: Physical and Health Education (minimum 2 semester units).** Courses in the following subjects carry credit for Physical and Health Education: (*Note: A maximum of four semester units of Physical Education activity courses can apply for graduation requirements.*)

BIOL 140  
 DANCE 101X2, 102X4, 103X4, 105X2, 106X4, 107X4, 114x4  
 FCS 162  
 HEALTH 101, 103  
 PE 236  
 PE-I (all courses)  
 PE-T (all activities)  
 PE-V (all activities)

Students are exempt from this requirement if they have completed any of the following programs of study at SBVC: Nursing, Psychiatric Technology, or POLICE 002 (Basic Law Enforcement Academy). Veterans of the armed forces may have met this requirement; consult with a counselor. PE 231 (First Aid and CPR) does not satisfy this graduation requirement.

**Important Note:**

The purpose of categorical subject requirements for graduation is to assure that the graduate will have adequate breadth outside of the area of specialization. For this reason, **NO COURSES IN ANY OF THE PRECEDING CATEGORIES MAY BE USED TO MEET MORE THAN ONE REQUIREMENT.** However, units in a student's subject major may be used to fulfill the requirements in Categories I through V above.

## Associate Degree Majors

San Bernardino Valley College offers associate degree majors in most departments listed in Part III of this catalog. Refer to the chart on page 37 for a complete list of associate degree majors. Refer to the particular department for course descriptions and a complete list of the courses required for that major.

The associate degree major in a specialized field or major is primarily intended for students who plan to enter an occupation after obtaining their two-year degree. Students preparing for the four-year baccalaureate degree normally do not begin to specialize or major until they leave San Bernardino Valley College. For these students, their lower division coursework will consist primarily of General Education Requirements and prerequisite courses that will lead to a major in their junior year. Thus a student planning to be a professional biologist or geologist is actually a pre-biology or pre-geology major during his/her first two years. Accordingly, these students should declare their associate degree major to be Liberal Arts, and should plan their lower division program on the basis of the requirements and recommendations of the four-year college or university to which they intend to transfer. Students are advised to consult the catalogs of the four-year schools they are interested in and to discuss specific requirements with their counselors.

## Graduation Catalog Rights

A student may elect to meet graduation requirements listed in the catalog:

1. At the time the student began attendance at SBVC or
2. Any catalog that the student has remained in continuous attendance (continuous attendance is defined as attendance in at least one semester of each catalog year) or
3. The catalog in effect at the time the graduation petition is submitted.

Note that summer session course requirements are included in the catalog of the previous academic year.

## Graduation Requirement Exceptions

When a student has a deficiency in one or more of the areas required for graduation, he/she has the option of filing a *Petition for Academic Exception*, which is available in the Counseling Center (Administration/Student Services Building, 103). The Scholastic Standards Committee will consider each petition on the basis of its overall individual merit.

## Vocational Certificate Programs

San Bernardino Valley College offers certificates of occupational proficiency in many fields. Certificates enable the student to gain marketable skills relatively quickly and at less expense than would be required for an associate degree. Students working toward a certificate are not typically required to take advanced academic courses in such fields as philosophy, foreign languages or history. Nonetheless, they must have a sufficient background in arithmetic, reading and writing in order to complete their coursework and to succeed in the occupations they select. Refer to page 37 of this catalog for a complete list of certificates, and to the individual programs described in

Part IV for a complete list of the sequence and scope of courses required for each certificate. Students interested in enrolling in certificate programs should confer with a counselor and talk with representatives of the departments that offer the desired program. In some instances, courses completed in high school may be used to satisfy some of the requirements for a certificate. In addition, training programs such as military courses, apprenticeships or other training may be credited toward a certificate program.

At the beginning of the student's final semester, he/she should obtain a Graduation and/or Certificate Application either from the Records Office or the division office of his/her certificate program. The student will then submit the application to the Records Office for a final check by the deadline date for the semester in question. Those dates are as follows:

Fall	October 1
Spring	March 1
Summer	July 1

When printed deadlines fall either Saturday or Sunday, the filing period will be extended to the Monday following the deadline date.

Twelve units, or 50 percent of the coursework required for a certificate, whichever is the lesser, must be completed at San Bernardino Valley College. This residency requirement may be waived in the case of extenuating circumstances with the permission of the program coordinator or Department Head. The certificate will be prepared by the Records Office and will be available to the student by the start of each new semester following the semester of submission.

## Intersegmental General Education Transfer Curriculum (IGETC)

Completion of all the requirements in the Intersegmental General Education Transfer Curriculum (IGETC) will permit a student to transfer from a community college to a campus in either the University of California (UC) or the California State University (CSU) without the need to complete additional lower-division general education courses. The IGETC is not an admission requirement for transfer to UC or CSU, nor is it the only way to fulfill prior to transfer, the lower-division, general education requirements of UC or CSU. Students pursuing majors that require extensive lower-division preparation may not find the IGETC option to be advantageous. The requirements listed here, must be entirely completed and certified in order to be accepted by CSU and UC. Students with Advanced Placement (AP) Examinations, which are recognized as equivalent to SBVC courses listed below, will obtain credit for IGETC. A minimum grade of "C" is required in each course.

### AREA 1 - English Communication.

CSU: Three (3) courses required, one from each group below.

UC: Two (2) courses required, one each from group A and B.

#### Group A: English Composition

1 course, 3 semester units / 4-5 quarter units. Select from: ENGL 101, 101H

**Group B: Critical Thinking - English Composition**

1 course, 3 semester units / 4-5 quarter units. Select from:  
ENGL 102, ENGL 102H  
PHIL 102

**Group C: Oral Communication (CSU only)**

1 course, 3 semester units / 4-5 quarter units. Select from:  
SPEECH 100, 100H, 111, 130, 140

**AREA 2 - Mathematical Concepts and Quantitative Reasoning**

1 course, 3 semester units / 4-5 quarter units. Select from:  
MATH 102\*\*, 108, 115, 151, 250, 251, 252, 265, 266, 285

**AREA 3 - Arts and Humanities**

At least three (3) courses, with at least one from the Arts and one from the Humanities, 9 semester units / 12-15 quarter units. Select from:

**Arts:**

ART 100, 102, 103\*\*, 105, 107, 108, 110, 111, 285  
DANCE 200  
MUS 100, 101, 104, 105, 106, 107, 121, 122  
THART 100

**Humanities:**

ANTHRO 110\* (same as RELIG 110)  
ENGL 151, 153, 155, 161, 163, 165, 175 (same as RELIG 175), 260, 261, 270, 271, 275, 280, 281  
HIST 100, 101, 107\*, 124, 126, 135 (same as RELIG 135), 137, 138, 139, 140, 145, 150, 153, 160, 161, 170, 171, 180\*  
MUS 285  
PHIL 101\*\*, 101H\*\*, 105, 112  
RELIG 100\*\*, 100H\*\*, 101, 110\* (same as ANTHRO 110), 135 (same as HIST 135), 150, 175 (same as ENGL 175), 176  
SPAN 103\*\*, 103H\*\*, 104, 158

**AREA 4 - Social and Behavioral Sciences**

At least three courses from at least two disciplines or an interdisciplinary sequence, 9 semester units / 12-15 quarter units. Select from:

ANTHRO 100, 102, 106, 107\*, 110\* (same as RELIG 110)  
ECON 100\*\*, 200\*\*, 200H\*\*, 201, 285  
GEOG 102, 106, 120  
HIST 110, 180\*  
POLIT 100, 110\*\*, 110H\*\*  
PSYCH 100\*\*, 100H\*\*, 102, 103, 110, 111\*\*, 112\*\*, 118  
RELIG 110\* (same as ANTHRO 110)  
SOC 100\*\*, 100H\*\*, 110, 130, 141, 145, 150, 285  
SPEECH 135, 174, 176

**AREA 5 - Physical and Biological Sciences**

Two (2) courses, one Physical Science course and one Biological course. At least one must include a laboratory. Laboratory classes are underlined, 7-9 semester units / 9-12 quarter units. Select from:

**Physical Science:**

ASTRON 120\*\*, 123\*\*, 125\*\*  
CHEM 101\*\*, 104\*\*, 110\*\*, 150\*\*, 150H\*\*, 151\*\*, 151H\*\*, 212\*\*, 212H\*\*, 213\*, 213H\*\*  
GEOG 110\*\*, 111\*\*, 114, 285\*\*  
GEOL 100, 101\*\*, 111\*\*, 112, 122, 250  
OCEAN 100\*\*, 101\*\*, 111\*\*  
PHYSIC 101\*\*, 150A\*\*, 150B\*\*, 200\*\*, 201\*\*  
PS 101\*\*

**Biological Science:**

BIOL 100\*\*, 102, 104, 108, 109, 201, 202, 203, 240, 250\*\*, 251\*\*, 260\*\*, 261\*\*, 270

**Language Other Than English (UC Requirement Only)**

Proficiency equivalent to two (2) years of high school study in the same language or one of the following:

ASL 109  
FRENCH 101  
SPAN 101

**CSU Graduation Requirements in U.S. History, Constitution and American Ideals**

(Not a part of IGETC; may be completed prior to transfer)  
Six (6) units, one (1) course from Group 1 and one (1) course from Group 2; courses used to meet this requirement may not be used to satisfy requirements for IGETC.

**Group 1:** POLIT 100\*

**Group 2:** HIST 100\*, 101\*, 137\*

**NOTE:**

1. Courses designated with one asterisk (\*) may be counted in one area only.
2. Courses designated with a double asterisk (\*\*) indicate that transfer credit may be limited by UC and/or CSU. Please consult with a counselor for further information.
3. Students should request official IGETC certification from the SBVC Records Office. For students who have completed coursework at multiple campuses, the campus of last attendance prior to transfer to UC or CSU will certify the IGETC. SBVC will certify coursework from other campuses according to the IGETC list of the originating campus. Official transcripts from high school and other colleges and universities must be on file at the SBVC Records Office.
4. Courses completed at colleges and universities outside of the U.S.A. will not be permitted for IGETC certification, except for the Language Other than English requirement.
5. Courses on this list are approved for fall 2005 and beyond. SBVC courses not listed above may not be used for IGETC, except for courses that were on the IGETC list for the year in which they were completed.

**The University of California**

The University of California has nine major campuses: Berkeley, Davis, Irvine, Los Angeles, Merced, Riverside, San Diego, Santa Barbara, and Santa Cruz. A tenth campus in San Francisco offers graduate and professional programs in the Health Sciences. With the exception of Berkeley and Merced, these campuses are on a quarter-unit basis. When converting semester units to quarter units, the number of semester units should be divided by two-thirds. When converting from quarter units to semester units, the number of quarter units should be multiplied by two-thirds.

Students who plan to transfer to the University of California may complete all of the required lower division courses at San Bernardino Valley College. While the UC campuses have similar general breadth lower division requirements and will accept a maximum of 70 semester units (or 105 quarter units) of transfer work, there are some subject differences among the campuses. Consult the catalog of the desired UC campus to identify these differences.

It is also possible to transfer to a University of California campus upon completion of the Intersegmental General Education Transfer Curriculum (IGETC), as discussed in the preceding section of this catalog.

The admission cycle for the fall term of the University of California begins each year on November 1 of the preceding year. Each campus will accept for consideration all applications filed during the month of November. Since enrollment ceilings have been established at each campus, students may be accepted only at their second or third choice campus.

The requirements for admission to the University as a transfer student vary in accordance with the high school record of the applicant. A transfer student must meet one of the following:

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, or were identified by the University during your senior year in high school as eligible under the Eligibility in the Local context (ELC) program – you are eligible to transfer if you have a C (2.) average in your transferable coursework.
2. If you met the Scholarship Requirement but did not satisfy the Subject Requirement, you must take transferable college courses in the missing subjects, earning a C or better in each required course, and have an overall C average in all transferable coursework to be eligible to transfer.
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, you must:
  - a. Complete 60 semester units or 90 quarter units of transferable college credit with a grade point average of 2.4 (no more than 14 semester/21 quarter units may be taken Pass/Not Pass), and;
  - b. Completed the following course pattern requirement, earning a grade of C or better in each course:
    - two transferable college courses (3 semester or 4-5 quarter units each) in English composition, and;
    - one transferable college course (3 semester or 4-5 quarter units) in mathematical concepts and quantitative reasoning, and;
    - four transferable college courses (3 semester or 4-5 quarter units each) chosen from at least two of the following subject areas: the arts and humanities, the social and behavioral science.

Students who satisfy the Intersegmental General Education Transfer Curriculum (IGETC) prior to transferring to UC may satisfy Option 3B of the transfer admission requirements.

Four programs are available to smooth the transition from San Bernardino Valley College to a University of California campus:

1. **Transfer Admission Guarantee Program (TAG)** is an agreement between the University of California, Riverside with San Bernardino Valley College. Consult with the Transfer Center for details of this admissions agreement.
2. **Transfer Alliance Program (TAP)** is an agreement between the University of California, Los Angeles, and the Honors Program at San Bernardino Valley College. Consult with the Honors Program Coordinator or the Honors Program Counselor for details of this admissions agreement.
3. **Transfer Admission Agreement (TAA)** is an agreement between UC Davis and San Bernardino Valley College providing guaranteed admission to students who satisfactorily complete all requirements for this program. See Transfer Center for details.
4. **University-Link Program** is an agreement between the University of California and San Bernardino Valley College for eligible students meeting transfer requirements. See Transfer Center for details.

Catalogs for each of the UC campuses are available in the Transfer Center. Also in the Transfer Center are two booklets that provide a summary of the unique requirements of each University of California campus: *Introducing the University* and *Answers for Transfers*.

### The California State University

The California State University system consists of 23 campuses, ranging in location from San Diego to Humboldt. The admission cycle for the fall term of each year begins on October 1 of the preceding year. Eligible students may also be accepted during the winter and/or spring terms. Check with the Transfer Center to determine the acceptance dates for each CSU campus.

The California State University system has specific admission requirements for freshman standing. Eligibility is based on a combination of high school grade point average for the last three years of high school, exclusive of physical education and military science, and scores on the ACT or SAT tests.

Students who do not enter the California State University system as freshmen may enter with advanced standing under the following conditions:

- Students who would have been eligible for admission as freshmen may transfer at the end of any semester, provided they have maintained a C or better average in all work attempted.
- Students who would have been ineligible for admission as freshmen must complete a minimum of 56 transferable semester units of work with a 2.00 grade point average or better. Beginning fall 2005, ALL upper division transfer applicants must have completed 60 or more transferable units, or 90 quarter units.

A maximum of 70 transfer-level semester units (or 105 quarter units) earned in a community college will be accepted for transfer.

Students transferring to the California State University should check both the general education and major requirements as early as possible by referring to the current catalogs for the colleges of their choice. A Guaranteed Admissions Program and a Dual Admissions Program are available to smooth the transition between San Bernardino Valley College and California State University, San Bernardino. Consult with the Transfer Center for details on this agreement.

### **The California State University General Education - Breadth Requirements**

San Bernardino Valley College may certify that a student has satisfied the minimum general education requirements of 39 lower division transfer units in accordance with CSU Executive Order 595. (It is also possible to transfer to a California State University campus upon completion of the Intersegmental General Education Transfer Curriculum [IGETC], as discussed in the preceding section of this catalog.) The number of units which may be certified are as follows:

#### **Area A: Communication in the English Language and Critical Thinking.**

9 semester units / 12 quarter units, one (1) course from each group. A minimum grade of C is required in each course.

**A1 Oral Communication.** Select from:

SPEECH 100, 100H, 111, 130, 140

**A2 Written Communication**

ENGL 101, 101H

**A3 Critical Thinking.** Select from:

ENGL 102, ENGL 102H

PHIL 102, 103

READ 102

SPEECH 125

#### **Area B: Physical Universe and its Life Forms**

Minimum of 9 semester units / 12 quarter units. One course from B1 (Physical Science), one course from B2 (Life Science), one course from B4 (Mathematics / Quantitative Reasoning). One of the three courses taken must be a laboratory course. Laboratory courses are underlined. Select from:

**B1 Physical Science**

ASTRON 120, 123

CHEM 101, 104, 110, 150, 150H, 151, 151H, 212, 212H, 213, 213H

GEOG 110, 114

GEOL 100, 101, 112, 122, 250, 251

OCEAN 100, 101

PHYSIC 101, 150A, 150B, 200, 201

PS 101

**B2 Life Science**

ANTHRO 106

BIOL 100, 102, 104, 108, 109, 123, 201, 202, 203, 240, 250, 251, 260, 261, 270

**B3 Laboratory Activity**

ASTRON 123, 125

BIOL 100, 102, 201, 202, 203, 240, 250, 251, 260, 261, 270

CHEM 101, 104, 150, 151, 212, 213

GEOG 111, 285

GEOL 100, 111

OCEAN 100, 111

PHYSIC 101, 150A, 150B, 200, 201

#### **B4 Mathematics/Quantitative Reasoning**

A minimum grade of C is required.

BUSCAL 200, 208

ECON 208

MATH 102,103,108,115,151,250,251,252,265,266,285, 286

#### **Area C: Arts, Literature, Philosophy and Foreign Language**

Minimum of 9 semester / 12 quarter units, with at least one course in the Arts and one from Humanities. Select from:

**C1 Arts (Art, Dance, Music, Theatre)**

ANTHRO 109

ARCH 145, 146

ART 100, 102, 103, 105, 107, 108, 110, 111, 164x4\*, 285

DANCE 200, 203

MUS 100, 101, 102, 104, 105, 106, 107, 121, 122, 285

THART 100

**\*Note: only three (3) units may be counted toward Area C.**

**C2 Humanities (Foreign Language, Literature, Philosophy)**

ANTHRO 110 (same as RELIG 110)

ASL 109, 110, 111, 112

ENGL 151, 153, 155, 161, 163, 165, 175, 232, 260, 261, 270, 271, 275, 280, 281

FRENCH 101, 102

HIST 100, 101, 107, 124, 126, 135 (same as RELIG 135), 137, 138, 139, 140, 145, 150, 153, 160, 161, 170, 171, 180

PHIL 101, 101H, 105, 112, 180 (same as RELIG 180)

RELIG 100, 100H, 101, 110 (same as ANTHRO 110), 135 (same as HIST 135), 150, 175, 176, 180 (same as PHIL 180)

SPAN 101, 102, 103, 103H, 104, 157, 158

#### **Area D: Social, Political and Economic Institutions and Behavior; Historical Background**

Minimum of 9 semester units / 12 quarter units. Select from:

**D1 Anthropology and Archaeology**

ANTHRO 100, 102, 106, 107, 109, 110 (same as RELIG 110)

RELIG 110 (same as ANTHRO 110)

**D2 Economics**

ECON 100, 200, 200H, 201, 285

**D3 Ethnic Studies**

ANTHRO 107; HIST 107, 110, 137, 138, 139, 140; SOC 141

**D4 Gender Studies**

SOC 145; SPEECH 176

**D5 Geography**

GEOG 102, 106, 120

**D6 History**

ANTHRO 107, HIST 100, 101, 107, 124, 126, 135 (same as RELIG 135), 137, 138, 139, 140, 145, 150, 153, 160, 161, 170, 171, 180

RELIG 135 (same as HIST 135)

**D7 Interdisciplinary Social or Behavioral Science**

CD 105, 105H

SPEECH 135, 174

**D8 Political Science, Government, and Legal Institutions**

POLIT 100, 110, 110H

**D9 Psychology**

PSYCH 100, 100H, 102, 103, 110, 111, 112, 118

**D0 Sociology and Criminology**

SOC 100, 100H, 110, 130, 141, 145, 150, 285

### Area E: Lifelong Understanding and Self-Development

Minimum of 3 semester units / 4 quarter units. One unit of credit is allowed for former military personnel with a DD-214. Select from:

BIOL 140  
CD 101, 105, 105H  
FCS 162  
GEOG 106  
HEALTH 101, 103  
PE 236  
PSYCH 100, 100H, 102, 103, 111, 118  
SDEV 102

### Activity Courses (only 1 semester unit / 1.5 quarter units allowed toward Area E)

DANCE 101x2, 102x4, 103x4, 105x2, 106x4, 107x4, 114x4  
PE-I 103X4, 105X4, 107x4, 108X4, 110X4, 111x4, 115X4, 116x4, 127X4, 138x4, 143X4, 144x4, 148X4, 164x4, 168x4, 173x4, 184X4, 185X4, 186X4, 187X4, 188X4, 189X4  
PE-T 100x4, 104x4, 108x4, 116x4, 120x4, 124x4

### U.S. History and American Ideals Requirement:

Graduation from the California State University requires U.S. History and American Political Institutions. Any combination of one selection from each of the following lists of history and politics courses will normally fulfill this requirement:

**Group 1:** HIST 100, 101, 137

**Group 2:** POLIT 100

### NOTE:

1. Students with AP Examinations will receive appropriate CSU GE-Breadth credit according to the CSU Office of the Chancellor guidelines.
2. Students are encouraged to complete Areas A and B4 early. CSU will not admit students until the grades are recorded for courses in Areas A and B4.
3. Upon transfer, students will be required to complete at least nine units of upper division courses at the CSU.
4. For CSU GE-Breadth certification purposes, students may use the catalog of entry or any catalog thereafter as long as continuous enrollment is maintained until transfer to CSU. CSU defines continuous enrollment as one semester or two quarters in each calendar year.
5. Students may request official certification of CSU GE-Breadth requirements at the SBVC Records Office.
6. Although SBVC will certify Areas A through E individually, the CSU encourages students to complete all areas prior to transfer. Upper division transfer students are required to complete a minimum of 30 units of CSU GE-Breadth courses with a minimum grade of C in each course.
7. Course work from other California Community Colleges will be evaluated according to the CSU GE-Breadth pattern of those respective colleges. For out-of-state coursework, the SBVC Records Office will determine equivalency to SBVC courses. Courses from foreign institutions may not be certified. Official transcripts must be on file in the Records Office.
8. A single course may not be certified as meeting more than one category.
9. Some majors at the CSU have required general education courses and/or do not allow double-counting of courses toward major requirements. Students are encouraged to consult with a counselor

and the catalog of the CSU to which they want to transfer.

10. The courses on this list are approved by the CSU Chancellor's office for Fall 2005 and beyond. **SBVC courses not on this list may not be used for CSU GE-Breadth requirements, except for courses that were on the CSU GE-Breadth list for the year in which they were completed.**

### Requirements for Transfer to Independent California Colleges and Universities

California's fully accredited independent colleges and universities provide a host of options at undergraduate, graduate and professional levels for students planning to continue their education beyond community college. Students who transfer to independent colleges often find that they are given academic credit for most, if not all, of their community college studies. Virtually all institutions give full credit for general education courses and usually for other courses designated for transfer by the community college.

Some colleges stipulate a certain number of completed units before considering students for transfer. Others will accept students at any time. The requirements are outlined in the respective college catalogs.

Listed below are some of the independent colleges and universities a student may choose to attend. Additional information is available in the Transfer Center.

- Alliant International University
- American Academy of Dramatic Arts
- Art Center College of Design
- Azusa Pacific University
- Biola University
- California Baptist University
- California College of Arts and Crafts
- California Institute of the Arts
- California Institute of Technology
- California Lutheran University
- Chapman University
- Charles K. Drew University of Medicine & Science
- Christian Heritage College
- Claremont McKenna College
- Cogswell Polytechnical College
- Concordia University
- DeVRY Institute of Technology
- Dominican University of California
- Fresno Pacific University
- Golden Gate University
- Harvey Mudd College
- Holy Names College
- Hope International University
- Humphreys College
- John F. Kennedy University
- La Sierra University
- Loma Linda University
- Loyola Marymount University
- The Master's College
- Menlo College
- Mills College
- Mount St. Mary's College
- National University
- New College of California
- Notre Dame de Namur University
- Occidental College
- Otis College of Art and Design
- Pacific Oaks College
- Pacific Union College

- Patten College
- Pepperdine University
- Pitzer College
- Point Loma Nazarene University
- Pomona College
- Samuel Merritt College
- San Francisco Art Institute
- San Francisco Conservatory of Music
- Santa Clara University
- St. Mary's College of California
- Scripps College
- Simpson College
- Southern California College of Optometry
- Southern California University of Health Sciences
- Stanford University
- Thomas Aquinas College
- United States International University
- University of Judaism
- University of La Verne
- University of the Pacific
- University of Redlands
- University of San Diego
- University of San Francisco
- University of Southern California
- University of West Los Angeles
- Vanguard University of Southern California
- Western University of Health Sciences
- Westmont College
- Whittier College
- Woodbury University



### **The California Articulation Number System (CAN)**

The California Articulation Number (CAN) System is a statewide numbering system independent from course numbers assigned by local colleges. A CAN number signals that participating California colleges and universities have determined that courses offered by other campuses are equivalent in content and scope to courses offered on their own campuses, regardless of their unique titles or local identifying numbers. Thus, if a schedule of classes or catalog lists a course bearing a CAN number, students on one campus can be assured that it may be accepted in lieu of the comparable CAN course noted in the catalog or schedule of classes of another campus. For example, CAN ECON 2 on one campus will be accepted as meeting the requirement of the designated CAN ECON 2 course on other participating community college or university campus.

The CAN numbering system is obviously useful for students attending more than one community college and is applied to many of the transferable, lower division courses students need as preparation for their intended major. Because these course requirements may change, however, and because courses are continually being redefined, qualified for or deleted from the CAN database, students should always check with their campus' counselors, articulation officer, or the transfer center director to determine how CAN-designated courses fit into their educational plans for transfer.

Students should consult the ASSIST database at [www.assist.org](http://www.assist.org) for specific information on course agreements. Counselors will help students interpret information.



PROGRAM	DEGREE	CERT	PG	PROGRAM	DEGREE	CERT	PG
<b>Accounting</b>	AA	•	40	<b>Escrow</b>	AA	•	185
Bookkeeping		•	40	<b>Family &amp; Consumer Science</b>			
Governmental & Non-Profit Accounting		•	41	Dietetic Aide		•	115
Tax Preparer		•	41	Dietetic Service Supervisor		•	115
<b>Administration of Justice</b>	AA	•	43	<b>Geography</b>	AS		120
<b>Aeronautics</b>				<b>Geographic Information Systems</b>		•	118
Airframe Maintenance Technician		•	46	<b>Geology</b>	AS		121
Aviation Maintenance Technician	AS	•	45	<b>General Railway Operations</b>		•	182
Avionics Technology		•	47	<b>General Warehousing</b>		•	201
Flight Operations		•	46	<b>Human Services</b>	AA	•	126
Flight Operations & Management	AS		45	Alcohol/Drug Studies		•	126
Powerplant Maintenance Technician		•	46	Career Specialist		•	126
<b>Air Travel Careers</b>				Case Management		•	127
Flight	AS	•	51	Eating Disorders Studies		•	127
Ground	AS	•	51	<b>Inspection Technology</b>	AS	•	132
Travel	AS	•	51	<b>Liberal Arts*</b>	AA		133
<b>Architecture &amp; Environmental Design</b>	AA		56	<b>Library Science</b>	AA	•	134
Computer-Aided Drafting Technician		•	56	<b>Machinist Technology</b>	AS	•	136
<b>Art</b>	AA		58	Basic Operations Computer Numerical Control (CNC)		•	137
Graphic Design	AA	•	58	Computer Numerical Control: CAD/CAM	AS	•	136
Web and Multimedia Design		•	59	Machinist Standard	AS	•	136
<b>Astronomy</b>	AS		166	Mechanical Hydraulics/Pneumatics		•	137
<b>Automotive Technology</b>				Tool and Die	AS	•	136
Advanced Automotive Body & Paint Tech	AS	•	63	<b>Mathematics</b>	AS		141
Automotive Technician	AS	•	64	<b>Music</b>	AA		144
Automatic Transmission	AS	•	63	Electronic Music		•	145
Basic Automotive Body & Paint Tech	AS	•	63	<b>Nursing</b>	AS		150
Engine Performance	AS	•	64	<b>Paralegal Studies</b>	AA		155
Wheel Alignment & Brakes	AS	•	64	<b>Pharmacy Technology</b>	AS	•	157
<b>Biology</b>	AS		68	<b>Physics</b>	AS		165
<b>Business Administration</b>	AA	•	72	<b>Police Science</b>			
Retail Management		•	72	Basic Law Enforcement		•	168
<b>Chemistry</b>	AS		76	<b>Psychiatric Technology</b>	AS	•	176
<b>Child Development</b>	AA		78	<b>Radio, Television &amp; Film</b>	AA	•	179
Associate Teacher		•	78	Digital Film Production	AA	•	179
Family Child Care		•	81	Radio	AA	•	179
Infant Development		•	80	Television	AA	•	179
Master Teacher		•	79	<b>Real Estate</b>	AA	•	185
Preschool		•	80	<b>Refrigeration &amp; Air Conditioning</b>	AS	•	187
School-Age		•	80	<b>Restaurant Management</b>	AA	•	190
Site Supervisor		•	80	Dining Room Service		•	191
Teacher		•	79	Food Preparation		•	191
<b>Computer Information Technology (CIT) – Management Information Systems</b>	AA	•	86	Food Service		•	191
<b>Computer Information Technology (CIT) – Office Information Systems</b>	AA	•	86	<b>Water Supply Engineering</b>	AS	•	202
Administrative Assistant		•	86	<b>Welding</b>			
Clerical Assistant		•	86	Consolidated Welding	AS	•	203
Information Processing Specialist		•	87	Flux Core Arc Welding (FCAW)		•	204
<b>Computer Science</b>	AS		92	Gas Metal Arc Welding (GMAW)		•	204
<b>Criminal Justice</b>				Gas Tungsten Arc Welding (GTAW)		•	204
Crime Scene Investigation		•	95	General Welding	AS	•	203
<b>Diesel</b>				Shielded Metal Arc Welding (SMAW)		•	204
Heavy-Duty Diesel Technician		•	101	Welding Inspection Technology		•	204
<b>Electricity/Electronics</b>							
Avionics Technology	AS	•	105				
Communication Engineering Technology	AS	•	104				
Computer Engineering Technology	AS	•	105				
Electric Power Technology	AS	•	105				
Electronics Technology	AS	•	104				

#### \*LIBERAL ARTS - ASSOCIATE OF ARTS DEGREE

The Liberal Arts major is an interdisciplinary major that exposes students to various academic disciplines and includes courses from the Sciences, Social Sciences and Humanities. The major is intended for students who want to transfer to a university, or for students who want a general Associate of Arts Degree that reflects broad-based interests rather than the more narrow focus of other majors. Students may obtain an Associate of Arts Degree in Liberal Arts by completing a minimum of 60 semester units of coursework (of these 60 units, a minimum of 12 units must be taken at SBVC) in addition to meeting one of the following criteria:

1. Completion of all CSU General Education-Breadth requirements, as described on page 34 of the college catalog; or
2. Completion of all IGETC requirements for either the University of California or the California State University systems, as described on page 31 of the college catalog; or
3. Completion of the requirements for Associate Degree Option 2, as described on page 29 of the college catalog, plus a combined total of 18 additional units selected from Category I (Natural Science), Category II (Social and Behavioral Science) and Category III (Humanities).



## PART III – CORE SKILL SETS

The six competencies (and their subsets) listed below describe the core skill sets a student should be able to demonstrate after completing the requirements for an associate degree at San Bernardino Valley College. These core skill sets are embedded in our established pattern of general education courses, in our more advanced major-preparation courses, and in student service learning experiences we provide over the span of a student's enrollment at the college. In addition, assignments that lead to the acquisition of these core skill sets are embedded in the coursework required for vocational certificates.

The core skill sets are:

### 1. Communication

Students learn to communicate effectively when they:

- 1.1. Read, retain, and apply published ideas
- 1.2. Write clearly and accurately in a variety of contexts and formats
- 1.3. Speak clearly and coherently in both formal and informal settings
- 1.4. Employ the vocabulary of the subject being studied
- 1.5. Demonstrate active listening skills and effective interpersonal communication

### 2. Information Competency

Students develop information competency skills when they:

- 2.1. Find and interpret information from text, tables, graphs, maps, media, personal communication, observation, and electronic resources
- 2.2. Evaluate authority, veracity and bias of information
- 2.3. Utilize technology to organize, and present information effectively
- 2.4. Demonstrate a working knowledge of basic computer function, software application, and problem solving.

### 3. Critical Thinking

Students develop critical thinking skills when they:

- 3.1. Evaluate strengths, weakness, and fallacies of logic in arguments and information
- 3.2. Locate, evaluate and select appropriate evidence to support or discredit an argument or position
- 3.3. Construct a persuasive argument that is based on sound reasoning and evidence
- 3.4. Apply lessons from the past or learned knowledge and skills to new and varied situations
- 3.5. Apply the principles of scientific and/or quantitative reasoning to solve problems
- 3.6. Devise and defend a logical hypothesis to explain observed phenomenon.

### 4. Ethics

Students develop a sense of personal and professional ethics when they:

- 4.1. Accept responsibility for their own actions
- 4.2. Demonstrate respect for a diversity of ideas and the rights of others
- 4.3. Exhibit personal, professional, and academic honesty
- 4.4. Display behavior consistent with the ethical standards within a discipline or profession
- 4.5. Apply lessons learned from the past to ethical issues faced in the present
- 4.6. Evaluate their own ethical beliefs in relationship to moral dilemmas
- 4.7. Assume civic, political, or social responsibilities

### 5. Creative Expression and Self Awareness

Students learn creative expression and self awareness when they:

- 5.1. Recognize their own strengths and weaknesses
- 5.2. Recognize their own biases and values
- 5.3. Recognize their learning style and make adjustments as necessary to improve their ability to receive and process information
- 5.4. Demonstrate the ability to give and receive constructive feedback
- 5.5. Develop time management skills
- 5.6. Develop stress management skills and/or other skills to maintain health and wellness
- 5.7. Set goals and develop strategies for educational, personal, and professional development
- 5.8. Set goals and develop strategies to create balance in their personal and professional lives
- 5.9. Evaluate diverse artistic works in varied media
- 5.10. Demonstrate creative thought in academic, artistic, or technical fields

### 6. Social Interaction and Cultural Diversity

Students learn effective social interaction and cultural diversity skills when they:

- 6.1. Demonstrate etiquette both in face-to-face and written interactions and communications
- 6.2. Work effectively as a leader and/or participant in group settings
- 6.3. Utilize conflict resolution skills when appropriate
- 6.4. Demonstrate knowledge of and respect for the history and culture of those who do not share the same race, gender, religion, age, sexual orientation, linguistic background or physical abilities
- 6.5. Demonstrate knowledge of and respect for one's own history and culture

## PART IV – ANNOUNCEMENT OF COURSES

Each course entry in this catalog includes the course number, title, a brief description, the number of semester units, and the number of hours the course meets based on a 16-18 week semester. The course entries also include information about how the course credit applies to associate degrees and transfer to the California State University or University of California systems.

Courses numbered from 001 through 099 are generally applicable to certificate and associate degree programs.

Courses numbered from 100 through 299 are generally applicable toward baccalaureate degrees conferred by universities.

Courses numbered from 900-999 are not applicable to associate degrees and do not transfer to four-year institutions.

Certain course entries include a symbol x and a number following the symbol, such as MUSIC 141x4. This symbol (x) indicates that this skill-based course may be taken for credit more than once; the number following the symbol (x) indicates the number of times the course may be taken for credit.

### ACADEMIC ADVANCEMENT

DIVISION: Learning Resources  
DIVISION DEAN: Marie Mestas, M.L.S.  
DEPARTMENT HEAD: Odette C. Salvaggio, Ph.D.  
OFFICE ASSISTANT: Robyn Wicklund  
(909) 384-8588  
LIAISON COUNSELOR: Ailsa Aguilar-Kitibutr, Psy.D.  
(909) 384-4404

ACAD 100 is required of all students taking 9 or more units a semester. This course must be completed within a student's first two semesters of course work. Students are exempt from this requirement if they have already earned 30 units or more of college credit or if they have already earned an associate or baccalaureate degree. Students on a career track within vocational disciplines that have articulated programs with four-year institutions may apply for exemption through the Department Chair and Division Dean of their area of study. The rest of the courses offered through this department are designed to help students perform well in their other classes and at their place of employment.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Write clearly.
- Employ vocabulary of the subject studied.
- Demonstrate active listening skills.
- Find and interpret information.
- Apply learned knowledge to new situations.
- Apply principles of scientific reasoning to solve problems.
- Accept responsibility for own actions.
- Demonstrate respect for a diversity of ideas and the rights of others.
- Exhibit personal, professional and academic honesty.
- Recognize own strengths and weaknesses.
- Recognize own learning style.
- Develop time management skills.
- Demonstrate etiquette in face-to-face and written interactions.

### ACAD 100 STRATEGIES FOR COLLEGE SUCCESS 1 UNIT *PREREQUISITE: None.*

**LECTURE: 1 hour per week.**

Introduces students to college environment, educational opportunities, college services, academic procedures and policies, graduation and transfer requirements. College survival skills such as educational planning, goal-setting, learning styles, time management, and interpersonal skills are key components.

*Associate Degree Applicable*

*Course credit transfers to CSU for elective credit only.*

### ACAD 110 TUTOR TRAINING 1 UNIT *PREREQUISITE: None.*

**DEPARTMENTAL ADVISORY: Completion of the courses to be tutored with a minimum grade of "B", departmental recommendation, and related experience.**

**LECTURE: .50 hour per week and**

**LABORATORY: 1.50 hours per week.**

Techniques and strategies for effective academic peer tutoring in a community college setting. Emphasis on tutoring, study skill techniques and practical skills to use in a variety of tutoring situations. Completion of any college-level course to be tutored with a grade of B or better is required. Graded on Credit/No Credit basis only.

*Associate Degree Applicable*

*Course credit transfers to CSU for elective credit only.*

### ACAD 600A-1x4 SUPERVISED TUTORING Non-Credit *PREREQUISITE: None.*

**LECTURE: Hours will vary according to student need.**

Students enrolling in this non-credit class will receive assistance in understanding course-specific content in areas in which they are having difficulty. Peer tutors will provide examples and supplementary instruction based on course texts and homework exercises. Enrollment in this class is limited to students who have been recommended by an instructor or counselor on the basis of an identified learning need. Call (909) 384-8566 for additional information about tutoring.

**ACAD 900**  
**EMPLOYABILITY SKILLS** **1 UNIT**  
**PREREQUISITE: None.**

**LECTURE: 1 hour per week.**

An introduction to the skills necessary to find and maintain a job; with emphasis on learning the appropriate skills to be successful on the job. Topics include information on desirable employee traits, on-the-job communication and the skills needed to conduct a successful job search. Graded on a Credit/No Credit basis only.

*Not Applicable to Associate Degree*

**ACAD 910x4**  
**VOCATIONAL BASIC SKILLS ENHANCEMENT** **3 UNITS**

**PREREQUISITE: None.**

**LECTURE: 3 hours per week.**

Offers a review and practice of basic skills materials in mathematics, reading, writing, English as a second language, GED materials, and applied computational and verbal skills; a self-paced, open-entry computer-assisted review tailored to meet students' individual academic needs each time the class is taken. Graded on Credit/No Credit basis only.

*Not Applicable to Associate Degree*

## ACCOUNTING

DIVISION:	Business & Information Technology
DIVISION DEAN:	Margaret Ortiz, M.A.
DEPARTMENT HEAD:	Nickolas Zoumbos, M.S. Business 100D (909) 384-8912
OTHER FACULTY:	Janet Courts, M.A.
DIVISION SECRETARY:	Chris Williams
DIVISION OFFICE:	Business 101 (909) 384- 8908
LIAISON COUNSELORS:	Marco Cota, M.A. (909) 384-4404

Accounting, as the language of business, is concerned with how businesses report their transactions and how they interpret the summaries of those transactions. Accountants record and summarize the economic events within a business. In addition, they interpret financial information and conduct solvency and profitability analyses to serve as a basis for sound business decisions.

Within the mission of the college, the Accounting Department has several objectives:

- 1) Provide high quality accounting and business programs, which will prepare our students for successful careers in business and government;
- 2) Provide students with a broad-base understanding of the concepts of Accounting, Business and Management;
- 3) Provide transfer to four-year institutions.

Students planning to transfer to a four-year institution and major in accounting should consult with a counselor regarding the transfer process and lower division requirements.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Find and interpret information.
- Apply learned knowledge to new situations.

- Accept responsibility for own actions.

### ACCOUNTING ASSOCIATE OF ARTS DEGREE

To graduate with a specialization in Accounting, students must complete all requirements for the certificate plus the general breadth requirements for the Associate Degree (minimum total = 60 units).

Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

### ACCOUNTING CERTIFICATE

This certificate is designed to prepare students for entry-level positions updating and maintaining accounting records, tabulating expenditures and receipts, tracking accounts payable and receivable, and tabulating profit and loss. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

REQUIRED COURSES:	UNITS
ACCT 200 Principles of Accounting I (or ACCT 100 & 101)	4
ACCT 201 Principles of Accounting II	4
ACCT 204 Computer Accounting: Spreadsheets	1
ACCT 207 Integrated Accounting Software	2
BUSAD 100 Introduction to Business	3
BUSAD 210 Business Law	3
BUSCAL 208 Business and Economics Statistics	4
ECON 200 Introduction to Macroeconomics	3
ECON 201 Principles of Microeconomics	3
MATH 095 Intermediate Algebra	4
BUSCAL 091 Beginning Algebra for Business	4
or	
MATH 090 Elementary Algebra	(4)
Ten Units from the list of RECOMMENDED COURSES	10
<b>TOTAL UNITS:</b>	<b>45</b>

RECOMMENDED COURSES:	UNITS
ACCT 015 Federal Income Tax Return Preparation	1.5
ACCT 130 Federal and State Revenue Tax Accounting	3
ACCT 090 Payroll Accounting	3
ACCT 202 Intermediate Accounting	3
ACCT 206 Cost Accounting	3
ACCT 235 Accounting for Government and Not-For-Profit Organizations I	4
BUSAD 203 Marketing Management	3
BUSCAL 200 Algebra and Finite Methods in Business	3
or	
MATH 102 Introduction to College Algebra	4
CIT 101 Introduction to Computer Literacy	3
REALST 100 Real Estate Principles	3

### BOOKKEEPING CERTIFICATE

REQUIRED COURSES:	UNITS
ACCT 010 Bookkeeping	3
or	
ACCT 100 Introduction to Accounting I	(4)
ACCT 090 Payroll Accounting	3
ACCT 204 Computer Accounting Spreadsheet	1
ACCT 207 Integrated Accounting Software	2
BUSCAL 050 Quantitative Methods in Business	3
CIT 033 Machine Calculations	
<b>TOTAL UNITS:</b>	<b>15-16</b>

**GOVERNMENTAL AND NON-PROFIT ACCOUNTING CERTIFICATE**

The purpose of this certificate is to prepare students for a successful career in the public sector.

REQUIRED COURSES	UNITS
ACCT 235 Accounting for Government And Not-For-Profit Organizations I	4
ACCT 236 Accounting for Government and Not-For-Profit Organizations II	4
ACCT 237 Budgeting for Governments	4
ACCT 202 Intermediate Accounting	3
<b>TOTAL UNITS:</b>	<b>15</b>

**TAX PREPARERS CERTIFICATE**

REQUIRED COURSES:	UNITS
ACCT 090 Payroll Accounting	3
ACCT 130 Federal and State Revenue Tax Accounting	3
ACCT 131 California Income Taxation	2
ACCT 132x4 Volunteer Income Tax Assistance I (VITA I)	2
ACCT 133x4 Volunteer Income Tax Assistance II (VITA II)	2
CIT 033 Machine Calculations	3
<b>TOTAL UNITS:</b>	<b>15</b>

**COURSES OFFERED BY THE DEPARTMENT OF ACCOUNTING:**

**ACCT 010 BOOKKEEPING 3 UNITS**

**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week.

Fundamentals of bookkeeping, such as recording transactions in journals, posting to ledgers, preparation of the trial balance and use of controlling accounts and related schedules. Practice in opening, adjusting and closing various professional sets of books. Recommended for occupational students and for those who wish preparatory training before entering ACCT 200.

*Associate Degree Applicable*

**ACCT 030 FEDERAL AND STATE TAXATION 4 UNITS**

**PREREQUISITE:** None.  
**LECTURE:** 4 hours per week.

A comprehensive course of study and practical application of basic federal and state income taxes. Includes history and objectives of the tax, research and analysis of current tax issues, along with the tax treatment of various types of entities, types of income, types of deductions and types of credits. Emphasis is on the individual as a taxpayer. Actual tax forms are studied and returns prepared.

*Associate Degree Applicable  
Course credit transfers to CSU.*

**ACCT 047 3 UNITS**

**COMPUTERIZED ACCOUNTING**

**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week.

Provides a comprehensive overview of accounting software. Topics covered include the analysis of source documents and the use of accounting software to prepare, understand, and interpret financial statements for a variety of management purposes. Also includes the solution of accounting problems using spreadsheet software and creating spreadsheets using formulas and graphics.

*Associate Degree Applicable  
Course credit transfers to CSU.*

**ACCT 090 PAYROLL ACCOUNTING 3 UNITS**

**PREREQUISITE:** None.  
**DEPARTMENTAL ADVISORY:** ACCT 101 or ACCT 200.  
**LECTURE:** 3 hours per week.

Accounting aspects of the Social Security Act, the California Unemployment Insurance Act and the California Worker's Compensation Insurance Act.

*Associate Degree Applicable*

**ACCT 100 INTRODUCTION TO ACCOUNTING I 3-4 UNITS**

**PREREQUISITE:** None.  
**DEPARTMENTAL ADVISORY:** BUSCAL 050 or ACCT 010.

**LECTURE:** 3-4 hours per week.

Exploration of the basic principles and practices of the financial accounting process for a sole proprietorship including the sources of financial information, journalizing and posting transactions, and preparing and analyzing financial statements for merchandise. Students completing ACCT 100 and ACCT 101 are eligible to enroll in ACCT 201.

*Associate Degree Applicable  
Course credit transfers to CSU.*

*Limited transfer to UC; contact a counselor for details.*

**ACCT 101 INTRODUCTION TO ACCOUNTING II 4 UNITS**

**PREREQUISITE:** ACCT 100.  
**LECTURE:** 4 hours per week.

Exploration of the basic principles and practices of the financial accounting process in a sole proprietorship including accounting for cash, posting receivables and payables, inventories, fixed assets and payroll. Students completing ACCT 100 and ACCT 101 are eligible to enroll in ACCT 201.

*Associate Degree Applicable  
Course credit transfers to CSU.*

*Limited transfer to UC; contact a counselor for details.*

**ACCT 132x4**  
**VITA: VOLUNTEER INCOME TAX ASSISTANCE I**  
**(VITA I) 2 UNITS**

**PREREQUISITE: None.**

**DEPARTMENTAL ADVISORIES: BUSCAL 050 or**  
**MATH 952; ACCT 010; ACCT 090; ACCT 100 or**  
**ACCT 200.**

**LECTURE: 2 hours per week.**

Combining both theory and practical application, this course allows the student to research and analyze current state and federal tax issues and to assist lower income and elderly citizens in the preparation of tax returns under the supervision of a CPA or licensed tax preparer. This course may be taken four times.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ACCT 133x4**  
**VITA: VOLUNTEER INCOME TAX ASSISTANCE II**  
**(VITA II) 2 UNITS**

**PREREQUISITE: ACCT 132x4.**

**LECTURE: 1 hour per week and**  
**LABORATORY: 3 hours per week.**

A continuation of ACCT 132x4 (VITA I), this course allows the student to research and analyze current tax issues, to interview real taxpayers, and to prepare and electronically file real tax returns under the supervision of a CPA or licensed tax preparer. NOTE: VITA I & II must be taken consecutively in the same calendar year. This course may be taken four times.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ACCT 200**  
**PRINCIPLES OF ACCOUNTING I 4 UNITS**

**PREREQUISITE: None.**

**DEPARTMENTAL ADVISORY: BUSCAL 050 or**  
**ACCT 010.**

**LECTURE: 4 hours per week.**

Development of the basic principles and practices applicable to the general accounting process, primarily in a sole proprietorship including transaction analysis, statement preparation and analysis, internal control, payroll, revenue recognition, and user analysis of accounting information and systems.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

*Limited transfer to UC; contact a counselor for details.*

*CAN: (California Articulation Number): BUS 2*

**ACCT 201**  
**PRINCIPLES OF ACCOUNTING II 4 UNITS**

**PREREQUISITES: ACCT 200 or ACCT 100 and**

**ACCT 101.**

**LECTURE: 4 hours per week.**

Examination of the basic principles and practices of financial and managerial accounting relevant to partnerships and corporations. Application of these concepts in the fields of cost; income tax; department and branch accounting; income projections and decision making; and financial statement preparation and analysis.

*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

*CAN: (California Articulation Number): BUS 4*

**ACCT 202**  
**INTERMEDIATE ACCOUNTING 3 UNITS**

**PREREQUISITE: ACCT 201.**

**LECTURE: 3 hours per week.**

Adjustments, working papers, financial statements, cash and receivables, inventories, investments, plant assets, intangibles, liabilities, capital stock and retained earnings, statement analysis and application of funds.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ACCT 206**  
**COST ACCOUNTING 3 UNITS**

**PREREQUISITE: ACCT 201.**

**LECTURE: 3 hours per week.**

Objectives and procedures of accounting for manufacturing enterprises including job-order and process costing, accounting for manufacturing overhead, joint-product and by-product costing, cost budgeting, standard costs and cost reports.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ACCT 222**  
**SPECIAL PROBLEMS IN ACCOUNTING I 1 UNIT**

**PREREQUISITE: ACCT 200.**

**INDEPENDENT STUDY: 3 hours per week.**

Assigned problems involving library and field work for selected students who are interested in furthering their knowledge of accounting on an independent study basis. Students are required to devote three hours per week to their project throughout the semester. Prior to registration, a contract must be prepared. See instructor for details. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the

Division Office for more information.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ACCT 235**  
**ACCOUNTING FOR GOVERNMENT AND NOT-FOR-PROFIT ORGANIZATIONS I 4 UNITS**

**PREREQUISITE: ACCT 201.**

**LECTURE: 4 hours per week.**

Fund accounting as applied to governmental operations and nonprofit institutions including problems of budgeting tax levies, appropriations and accounting for revenues and expenditures. Includes general funds, special revenue, bond sinking, working capital, special assessment, trust, agency, and utility.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ACCT 236**  
**ACCOUNTING FOR GOVERNMENT AND NOT-FOR-PROFIT ORGANIZATIONS II 4 UNITS**

**PREREQUISITE: ACCT 235.**

**LECTURE: 4 hours per week.**

This course is intended to continue the topics introduced in ACCT 235. Emphasis is on budgeting operations and managerial control of budgets in nonprofit organizations such as school districts, health care facilities and charitable organizations.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ACCT 237**  
**BUDGETING FOR GOVERNMENTS** **4 UNITS**  
**PREREQUISITE: ACCT 235.**

**LECTURE: 4 hours per week.**

An introduction to the concepts and practices of budgeting in the public sector at the federal, state and local government levels including how budgeting operates in the political arena as well as budgeting as a process of public administration.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ACCT 285**  
**HONORS IN ACCOUNTING** **3 UNITS**  
**PREREQUISITE: ACCT 200.**

**LECTURE: 3 hours per week.**

Designed to develop thinking and analytical skills of business students through a variety of user based activities in the areas of accounting ethics, information systems design and controls, financial planning and statement analysis, budgeting, forecasting and decision making.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ADMINISTRATION OF JUSTICE**

DIVISION: Criminal Justice  
 ADMINISTRATIVE DEAN: Gloria M. Fisher, J.D.  
 DEPARTMENT HEAD: Frank Peterson, J.D.  
 Liberal Arts 124  
 909) 384-8604  
 DIVISION SECRETARY: Sharen Chavira  
 DIVISION OFFICE: Planetarium, 2nd Floor  
 (909) 384-4431  
 LIAISON COUNSELOR: Joyce Smith, M.A.  
 (909) 384-4404

The Administration of Justice discipline involves the study of the theory and practice of law, law enforcement, the courts, and corrections systems. Law enforcement specializes in police activities including effective investigation and patrol services to the public. The courts specialize in responsibilities to the public through the trial system. The corrections systems specialize in the punishment and incarceration process as well as rehabilitation of the offender. Private security services explore private protection through private agencies.

Administration of Justice offers a wide range of career opportunities. Students interested in careers as peace officers should refer to the Department of Police Science in this catalog. Students planning to transfer to a four-year institution and major in Administration of Justice should consult with a counselor regarding the transfer process and lower division requirements.

The Administration of Justice courses listed may not be offered every semester due to instructor availability. Please refer to the college semester schedule of class offerings.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Write clearly.

- Speak clearly.
- Employ vocabulary of the subject studied.
- Find and interpret information.
- Evaluate strengths, weaknesses and fallacies of logic.
- Locate, evaluate and select evidence to support or discredit an argument.
- Apply learned knowledge to new situations.
- Accept responsibility for own actions.
- Demonstrate respect for a diversity of ideas and the rights of others.
- Exhibit personal, professional and academic honesty.
- Display behavior consistent with ethical standards within a discipline.
- Demonstrate etiquette in face-to-face and written interactions.
- Work effectively in group settings.
- Utilize conflict resolution skills.
- Demonstrate knowledge of and respect for other cultures.

**ADMINISTRATION OF JUSTICE  
 ASSOCIATE OF ARTS DEGREE**

To graduate with a specialization in Administration of Justice, students must complete all requirements for the certificate plus the general breadth requirements for the Associate Degree (minimum total = 60 units).

Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

**ADMINISTRATION OF JUSTICE CERTIFICATE**

The Administration of Justice certificate is designed to prepare students for entry-level positions in a wide range of law enforcement services, including the courts, corrections, law enforcement, and private security. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

**REQUIRED COURSES: UNITS**

ADJUS 101 Introduction to Administration of Justice	3
ADJUS 102 Principles and Procedures of the Justice System	3
ADJUS 103 Concepts of Criminal Law	3
ADJUS 104 Legal Aspects of Evidence	3
ADJUS 105 Community Relations	3

**Six (6) units of electives chosen from the following list: 6**

ADJUS 106 Principles of Investigation	(3)
ADJUS 107 Concepts of Enforcement Services	(3)
ADJUS 108 Juvenile Procedures	(3)
CORREC 101 Introduction to Corrections	(3)
CORREC 102 Correctional Interviewing and Counseling	(3)
CORREC 104 Control and Supervision in Corrections	(3)
CORREC 105 Legal Aspects of Corrections	(3)
<b>TOTAL UNITS:</b>	<b>21</b>

<b>RECOMMENDED COURSES:</b>	<b>UNITS</b>
ENGL 101 Freshman Composition	4
ENGL 102 Intermediate Composition and Critical Thinking	4
HIST 101 US History: 1865 to Present	3
MATH 102 Introduction to College Algebra or	4
MATH 108 Introduction to Probability and Statistics or	(4)
MATH 115 Ideas of Mathematics	(3)
POLIT 100 American Politics	3
PSYCH 100 General Psychology	3
SOC 100 Introduction to Sociology	3
SPEECH 100 Public Speaking or	3
SPEECH 111 Interpersonal Communication	(3)

**COURSES OFFERED BY THE  
DEPARTMENT OF ADMINISTRATION OF JUSTICE:**

**ADJUS 101  
INTRODUCTION TO ADMINISTRATION OF JUSTICE  
3 UNITS**

**PREREQUISITE:** None.

**LECTURE:** 3 hours per week.

Philosophy and history of the criminal justice system, including the roles, function of the local, state and federal jurisdictions. The roles, functions and interrelationships among law enforcement agencies, courts and corrections. Crime causation, correctional theory, analysis, and the social impact of crime.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

*CAN (California Articulation Number): AJ 2*

**ADJUS 102  
PRINCIPLES AND PROCEDURES OF THE  
JUSTICE SYSTEM  
3 UNITS**

**PREREQUISITE:** None.

**LECTURE:** 3 hours per week.

A study of the role and responsibilities of each segment within the Administration of Justice System, law enforcement, judicial, corrections. A past, present and future exposure to each sub-system, procedures from initial entry to final disposition and the relationship each segment maintains with its system members.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**ADJUS 103  
CONCEPTS OF CRIMINAL LAW  
3 UNITS**

**PREREQUISITE:** None.

**LECTURE:** 3 hours per week.

History, philosophy and the development of U.S. criminal law. Introduction to common law, legal concepts and codes.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

**ADJUS 104  
LEGAL ASPECTS OF EVIDENCE  
3 UNITS**

**PREREQUISITE:** None.

**LECTURE:** 3 hours per week.

Origin, development, philosophy, and constitutional basis of the use of evidence; constitutional and procedural considerations affecting arrest, search and seizure; types of evidence, and rules governing admissibility; interpretation of individual rights; and case studies.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**ADJUS 105  
COMMUNITY RELATIONS  
3 UNITS**

**PREREQUISITE:** None.

**LECTURE:** 3 hours per week.

Relationship and awareness of criminal justice agencies to diverse populations such as gender, racial, and sexual orientation: including discrimination and hate crimes.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

**ADJUS 106  
PRINCIPLES OF INVESTIGATION  
3 UNITS**

**PREREQUISITE:** None.

**LECTURE:** 3 hours per week.

Principles of various types of investigations utilized in the justice system, including concepts of investigation, and the analysis, evaluation, preservation and documentation of evidence. Includes dealing with the public, techniques for handling crime scenes, interviews, evidence, surveillance, follow-up, technical resources, and case preparation.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**ADJUS 107  
CONCEPTS OF ENFORCEMENT SERVICES  
3 UNITS**

**PREREQUISITE:** None.

**LECTURE:** 3 hours per week.

Exploration of theories, philosophies, and concepts related to the role expectations of the line enforcement officer. Emphasis on patrol, traffic and public service responsibilities and their relationships to the administration of justice.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**ADJUS 108  
JUVENILE PROCEDURES  
3 UNITS**

**PREREQUISITE:** None.

**LECTURE:** 3 hours per week.

Organization, function and jurisdiction of juvenile agencies, processing and detention of juvenile status and court procedures.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**ADJUS 198  
ADMINISTRATION OF JUSTICE WORK EXPERIENCE  
1-4 UNITS**

**PREREQUISITE: None.**

Supervised training in the form of on the job employment that will enhance the student's educational goals. The student's major and job must match. Students work 5-20 hours per week to earn units using the following formula: For paid work, 75 hours = 1 unit; for volunteer work, 60 hours = 1 unit. Students may earn a total of 16 units toward graduation in Work Experience 198 courses. Students MUST be working for pay or volunteer before registering for a Work Experience class. NOTE: Only one section of Work Experience may be taken during a semester.

*Associate Degree Applicable*

*Course credit transfers to CSU for elective credit only.*

**AERONAUTICS**

DIVISION: Applied Technology & Transportation  
 DIVISION DEAN: Thomas Bauman, M.S., P.E.  
 DEPARTMENT HEAD: Allen Moore, A.A.  
 Technical 108  
 (909) 384-8270  
 OTHER FACULTY: Kevin Kammer, A.A.  
 DIVISION SECRETARY: Patsy Martinez  
 (909) 384-8902  
 DIVISION OFFICE: Technical 108  
 (909) 384-4451  
 LIAISON COUNSELOR: Jennifer Mendoza, M.S.  
 (909) 384-4404

The aeronautics industry is presently experiencing a shortage of personnel in all aspects of aviation until 2010. Jobs are available locally, throughout the U.S. and globally.

The Aeronautics Department curriculum offers students several ways to qualify for employment in the aviation industry. Students may pursue either Associate of Science degrees or certificates in Flight Operations and Management or Airframe and Powerplant Technology. Students desiring specific ratings or licenses should consult with faculty in the Aeronautics Department and/or the Federal Aviation Administration.

Students planning to transfer to a four-year institution and major in aeronautics should consult with a counselor regarding the transfer process and lower division requirements.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Write clearly.
- Employ vocabulary of the subject studied.
- Find and interpret information.
- Locate, evaluate and select evidence to support or discredit an argument.
- Exhibit personal, professional and academic honesty.
- Display behavior consistent with ethical standards within a discipline.

**AERONAUTICS  
ASSOCIATE OF SCIENCE DEGREE**

The Aeronautics Department offers these areas of specialization for the Associate of Science degree: Airframe and Powerplant Technology, and Flight Operations and Management. To graduate with a specialization in these areas, students must complete all requirements plus the general breadth requirements for the Associate Degree (minimum total = 60 units).

**1. AVIATION MAINTENANCE TECHNICIAN**

Each of the following courses must be completed with a grade of C or higher.

<b>REQUIRED COURSES:</b>	<b>UNITS</b>
AERO 100 Airframe and Power Plant General Curriculum - Calculations/Publications	5
AERO 101 Airframe and Power Plant General Curriculum - Servicing/Materials	5
AERO 102 Airframe Maintenance Lecture-Structures	6
AERO 103 Airframe Maintenance Lecture-Systems & Components	6
AERO 104 Power Plant Maintenance Lecture – Reciprocating Engine Overhaul	6
AERO 105 Power Plant Maintenance Lecture – Accessory Overhaul	6
AERO 106 Airframe and Power Plant General Laboratory - Calculations/Publications	2
AERO 107 Airframe and Power Plant General Laboratory - Servicing/Materials	2
AERO 108 Airframe Maintenance Laboratory – Structures	5
AERO 109 Airframe Maintenance Laboratory – Systems & Components	5
AERO 110 Power Plant Maintenance Laboratory – Reciprocating Engine Overhaul	5
AERO 111 Power Plant Maintenance Laboratory – Accessory Overhaul	5
<b>TOTAL UNITS:</b>	<b>58</b>

**2. FLIGHT OPERATIONS AND MANAGEMENT**

<b>REQUIRED COURSES:</b>	<b>UNITS</b>
AERO 121 Aviation Fundamentals	3
*AERO 122C F.A.A. Private Pilot Ground School	6
AERO 124 Aircraft Power Plants	3
AERO 125 Flight Safety	2
AERO 126 Aircraft Structures	3
AERO 134 Civil Aviation Management and Laws	3
AERO 140C Instrument Ground School and Flight Simulators	4
AERO 144 Aviation Weather	3
BUSAD 100 Introduction to Business	3
MATH (See advisor for appropriate level)	(3-4)
PHYSICS 101 Basic Physics	4
<b>TOTAL UNITS:</b>	<b>37-38</b>

*\*Will be waived if students have taken equivalent course.*

**AERONAUTICS CERTIFICATES**

Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.



**1. AVIATION MAINTENANCE TECHNICIAN**

This certificate is designed to prepare students to qualify for the airframe and powerplant certificate issued by the Federal Aviation Administration, which enables the holder to perform 100 hour and annual inspections on aircraft ranging from small aircraft used in general aviation through jets utilized by commercial airlines. The written examinations are administered by the Federal Aviation Administration through computer testing centers. The practical portion of the certificate is administered here at San Bernardino Valley College. The total program requires 1,900 hours of lecture and laboratory. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

<b>REQUIRED COURSES:</b>	<b>UNITS</b>
AERO 100 Airframe and Power Plant General Curriculum - Calculations/Publications	5
AERO 101 Airframe and Power Plant General Curriculum - Servicing/Materials	5
AERO 102 Airframe Maintenance Lecture – Structures	6
AERO 103 Airframe Maintenance Lecture – Systems and Components	6
AERO 104 Power Plant Maintenance Lecture – Reciprocating Engine Overhaul	6
AERO 105 Power Plant Maintenance Lecture – Accessory Overhaul	6
AERO 106 Airframe and Power Plant General Laboratory - Calculations/Publications	2
AERO 107 Airframe and Power Plant General Laboratory - Servicing/Materials	2
AERO 108 Airframe Maintenance Laboratory – Structures	5
AERO 109 Airframe Maintenance Laboratory – Systems and Components	5
AERO 110 Power Plant Maintenance Laboratory – Reciprocating Engine Overhaul	5
AERO 111 Power Plant Maintenance Laboratory – Accessory Overhaul	5
<b>TOTAL UNITS:</b>	<b>58</b>

**2. FLIGHT OPERATIONS**

The certificate program in Flight Operations is designed for students interested in careers as a pilot in general aviation, commercial aviation, or military aviation. This certificate prepares students for immediate employment or for transfer to other colleges, and includes Federal Aviation Administration approved curricula in basic ground school, advanced ground school, and instrument ground school. Through the San Bernardino Valley College Flying Club, students have the opportunity to gain additional flight experience at a nominal cost as they prepare for the private pilot, commercial pilot, or instrument pilot ratings. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

<b>REQUIRED COURSES:</b>	<b>UNITS</b>
AERO 121 Aviation Fundamentals	3
AERO 122C* F.A.A. Private Pilot Ground School	6
AERO 124 Aircraft Power Plants	3
AERO 125 Flight Safety	2
AERO 126 Aircraft Structures	3
AERO 140C Instrument Ground School and Flight Simulators	4
AERO 144 Aviation Weather	3

**TOTAL UNITS: 24**

*\*Will be waived if students have taken equivalent course.  
\*\*Pending approval from the California Community College Chancellor's Office*

**3. POWERPLANT MAINTENANCE TECHNICIAN**

This certificate is designed to prepare students to qualify for the powerplant certificate issued by the Federal Aviation Administration, which enables the holder to perform 100 hour and annual inspections on aircraft and annual inspections on aircraft ranging from small aircraft used in general aviation through jets utilized by commercial airlines. The written examinations are administered by the Federal Aviation Administration through computer testing centers. The practical portion of the certificate is administered here at San Bernardino Valley College. The total program requires 1150 hours of lecture and laboratory. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

<b>REQUIRED COURSES:</b>	<b>UNITS</b>
AERO 100 Airframe and Powerplant General Curriculum- Calculations/Publications	5
AERO 101 Airframe and Powerplant General Curriculum- Servicing/Materials	5
AERO 104 Powerplant Maintenance Lecture- Reciprocating Engine Overhaul	6
AERO 105 Powerplant Maintenance Lecture- Accessory Overhaul	6
AERO 106 Airframe and Powerplant General Laboratory- Calculations/Publications	2
AERO 107 Airframe and Powerplant General Laboratory- Servicing/Materials	2
AERO 110 Powerplant Maintenance Laboratory- Reciprocating Engine Overhaul	5
AERO 111 Powerplant Maintenance Laboratory- Accessory Overhaul	5
<b>TOTAL UNITS:</b>	<b>36</b>

**4. AIRFRAME MAINTENANCE TECHNICIAN**

This certificate is designed to prepare students to qualify for the airframe certificate issued by the Federal Aviation Administration, which enables the holder to perform 100 and annual inspections on aircraft and annual inspections on aircraft ranging from small aircraft used in general aviation through jets utilized by commercial airlines. The written examinations are administered by the Federal Aviation Administration through computer testing centers. The practical portion of the certificate is administered here at San Bernardino Valley College. The total program requires 1,150 hours of lecture and laboratory. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

<b>REQUIRED COURSES:</b>	<b>UNITS</b>
AERO 100 Airframe and Powerplant General Curriculum- Calculations/Publications	5
AERO 101 Airframe and Powerplant General Curriculum- Servicing/Materials	5
AERO 102 Airframe Maintenance Lecture- Structures	6
AERO 103 Airframe Maintenance Lecture- Systems and Components	6

**Continued on next page...**

**4. AIRFRAME MAINTENANCE TECHNICIAN**  
Continued...

AERO 106 Airframe and Powerplant General Laboratory- Calculations/Publications	2
AERO 107 Airframe and Powerplant General Laboratory- Servicing/Materials	2
AERO 108 Airframe Maintenance Laboratory- Structures	5
AERO 109 Airframe Maintenance Laboratory- Systems and Components	5
<b>TOTAL UNITS:</b>	<b>36</b>

**5. AVIONICS TECHNOLOGY**  
**Complete the CORE REQUIRED COURSES for the**  
**ELECTRONICS TECHNOLOGY CERTIFICATE, plus:**

REQUIRED COURSES:	UNITS
AERO 121* Aviation Fundamentals	3
AERO 140C* Instrument Ground School & Flight Simulator	4
ELECTR 220A FCC Rules and Regulations	3
ELECTR 250A Radio Transmitters, Receivers, & Antennas	4
ELECTR 257A Navigation & Communication Systems	4
<b>TOTAL UNITS:</b>	<b>52</b>

\* AERO 102 & 103 can be substituted for AERO 121 & 140

**COURSES OFFERED BY THE DEPARTMENT OF**  
**AERONAUTICS:**

**AERO 011**  
**POWER PLANT MAINTENANCE REVIEW** **6 UNITS**

**PREREQUISITE: None.**  
**LECTURE: 6 hours per week.**

A comprehensive review of the power plant curriculum in preparation for the F.A.A. written examination. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

*Associate Degree Applicable*

**AERO 013**  
**AIRFRAME MAINTENANCE REVIEW** **6 UNITS**

**PREREQUISITE: None.**  
**LECTURE: 6 hours per week.**

A comprehensive review of the aircraft airframe and general curriculum in preparation for the F.A.A. written examination. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

*Associate Degree Applicable*

**AERO 015**  
**BASIC FUNDAMENTALS OF AIRCRAFT COMPOSITE**  
**STRUCTURES** **2 UNITS**

**PREREQUISITE: None.**  
**LECTURE: 2 hours per week.**

An introduction to aircraft composite structures including the manufacturing, uniqueness and strength and repair methods.

*Associate Degree Applicable*

**AERO 100**  
**AIRFRAME AND POWER PLANT GENERAL**  
**CURRICULUM-CALCULATIONS/PUBLICATIONS** **5 UNITS**

**PREREQUISITE: None.**

**COREQUISITES: AERO 106 and either AERO 102 and**  
**AERO 108 or AERO 104 and AERO 110.**

**LECTURE: 5 hours per week.**

Federal Aviation Administration approved curriculum that provides training for all general requirements in maintenance mandated by the F.A.A. Focus on the applications of mathematics, physics, and electricity in aeronautics; how to interpret and use aircraft drawings; fluid lines and fittings; and strategies for testing various aircraft materials and processes.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**AERO 101**  
**AIRFRAME AND POWER PLANT GENERAL**  
**CURRICULUM-SERVICING/MATERIALS** **5 UNITS**

**PREREQUISITE: None.**

**COREQUISITES: AERO 107 and either AERO 103 and**  
**AERO 109 or AERO 105 and AERO 111.**

**LECTURE: 5 hours per week.**

Federal Aviation Administration approved curriculum that provides training for all general requirements in maintenance mandated by the F.A.A. Focus on cleaning and corrosion control; ground operation and servicing; maintenance publications, forms and records; mechanic privileges and limitations, and solutions to common weight and balance problems.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**AERO 102**  
**AIRFRAME MAINTENANCE LECTURE - STRUCTURES** **6 UNITS**

**PREREQUISITES/COREQUISITES: AERO 100 and**  
**AERO 106.**

**COREQUISITE: AERO 108.**  
**LECTURE: 6 hours per week.**

Federal Aviation Administration approved curriculum which provides training in airframe structures and airframe systems and components. Satisfactory completion of AERO 102 and AERO 103, in conjunction with the corresponding laboratory courses, qualifies students to take the F.A.A. examination for airframe certification. Focus on shop safety; aircraft covering; aircraft finishing; theory of flight; assembly and rigging; structural repair; aircraft inspection; and aircraft fuel systems.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**AERO 103**  
**AIRFRAME MAINTENANCE LECTURE - SYSTEMS**  
**AND COMPONENTS** 6 UNITS  
**PREREQUISITES/COREQUISITES: AERO 101 and**  
**AERO 107.**

**COREQUISITE: AERO 109.**

**LECTURE: 6 hours per week.**

Federal Aviation Administration approved curriculum which provides training in airframe structures and airframe systems and components. Satisfactory completion of AERO 102 and AERO 103, in conjunction with the corresponding laboratory courses, qualifies students to take the F.A.A. examination for airframe certification. Focus on aircraft welding; electrical circuits; and basic aircraft systems for power, landing, brakes, warning, instrumentation, auto-pilot, cabin atmosphere control, ice and rain control, fire protection and communications.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**AERO 104**  
**POWER PLANT MAINTENANCE LECTURE -**  
**RECIPROCATING ENGINE OVERHAUL** 6 UNITS  
**PREREQUISITES/COREQUISITES: AERO 100 and**  
**AERO 106.**

**COREQUISITE: AERO 110.**

**LECTURE: 6 hours per week.**

Federal Aviation Administration approved curriculum which provides training in power plant theory and maintenance. Satisfactory completion of AERO 104 and AERO 105, in conjunction with the corresponding laboratory courses, qualifies students to take the F.A.A. examination for the power plant certification. Includes reciprocating engines, turbine engines, and engine inspections.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**AERO 105**  
**POWER PLANT MAINTENANCE LECTURE –**  
**ACCESSORY OVERHAUL** 6 UNITS  
**PREREQUISITES/COREQUISITES: AERO 101 and**  
**AERO 107.**

**COREQUISITE: AERO 111.**

**LECTURE: 6 hours per week.**

Federal Aviation Administration approved curriculum which provides training in power plant systems and components. Satisfactory completion of AERO 104 and AERO 105, in conjunction with the corresponding laboratory courses, qualifies students to take the F.A.A. examination for the power plant certification. Includes basic systems for instrumentation, fire protection, electrical, lubrication, ignition, fuel and fuel metering, induction, cooling, exhaust, and propellers.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**AERO 106**  
**AIRFRAME AND POWER PLANT GENERAL**  
**LABORATORY CALCULATIONS/PUBLICATIONS** 2 UNITS

**PREREQUISITE: None.**

**COREQUISITES: AERO 100 and either AERO 102**  
**and AERO 108 or AERO 104 and AERO 110.**

**LABORATORY: 6 hours per week.**

Practical shop work companion to AERO 100 to provide the hands-on experience mandated by the F.A.A. Focus on the applications of mathematics, physics, and electricity in aeronautics; how to interpret and use aircraft drawings; fluid lines and fittings; and strategies for testing various aircraft materials and processes.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**AERO 107**  
**AIRFRAME AND POWER PLANT GENERAL**  
**LABORATORY - SERVICING/MATERIALS** 2 UNITS  
**PREREQUISITE: None.**

**COREQUISITES: AERO 101 and either AERO 103 and**  
**AERO 109 or AERO 105 and AERO 111.**

**LABORATORY: 6 hours per week.**

Practical shop work companion to AERO 101 to provide the hands-on experience mandated by the F.A.A. Focus on cleaning and corrosion control; ground operation and servicing; maintenance publications, forms and records; mechanic privileges and limitations, and solutions to common weight and balance problems.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**AERO 108**  
**AIRFRAME MAINTENANCE LABORATORY -**  
**STRUCTURES** 5 UNITS  
**PREREQUISITES/COREQUISITES: AERO 100 and**  
**AERO 106.**

**COREQUISITE: AERO 102.**

**LABORATORY: 15 hours per week.**

Laboratory section of Federal Aviation Administration approved curriculum which provides training in airframe structures and airframe systems and components. This laboratory is a required corequisite to AERO 102 and focuses on shop safety; aircraft covering; aircraft finishing; theory of flight; assembly and rigging; structural repair; aircraft inspection; and aircraft fuel systems.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**AERO 109**  
**AIRFRAME MAINTENANCE LABORATORY -**  
**SYSTEMS AND COMPONENTS** 5 UNITS  
**PREREQUISITES/COREQUISITES: AERO 101 and**  
**AERO 107.**

**COREQUISITE: AERO 103.**

**LABORATORY: 15 hours per week.**

Laboratory section of Federal Aviation Administration approved curriculum which provides training in airframe structures and airframe systems and components. This laboratory is a required corequisite to AERO 103 and focuses on aircraft welding; electrical circuits; and basic aircraft systems for power, landing, brakes, warning, instrumentation, auto-pilot, cabin atmosphere control, ice and rain control, fire protection and communications.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**AERO 110**  
**POWER PLANT MAINTENANCE LABORATORY -**  
**RECIPROCATING ENGINE OVERHAUL 5 UNITS**  
**PREREQUISITES/COREQUISITES: AERO 100 and**  
**AERO 106.**

**COREQUISITE: AERO 104.**

**LABORATORY: 15 hours per week.**

Laboratory section of Federal Aviation Administration approved curriculum which provides training in power plant theory and maintenance. This laboratory is a required corequisite to AERO 104 and includes reciprocating engines, turbine engines, and engine inspections.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**AERO 111**  
**POWER PLANT MAINTENANCE LABORATORY -**  
**ACCESSORY OVERHAUL 5 UNITS**  
**PREREQUISITES/COREQUISITES: AERO 101 and**  
**AERO 107.**

**COREQUISITE: AERO 105.**

**LABORATORY: 15 hours per week.**

Laboratory section of Federal Aviation Administration approved curriculum which provides training in power plant systems and components. This laboratory is a required corequisite to AERO 105 and includes basic systems for instrumentation, fire protection, electrical, lubrication, ignition, fuel and fuel metering, induction, cooling, exhaust, and propellers.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**AERO 121**  
**AVIATION FUNDAMENTALS 3 UNITS**  
**PREREQUISITE: None.**

**LECTURE: 3 hours per week.**

Introduction to the basic principles of aeronautics, aircraft structure and operations. An orientation to the aviation industry including space, rocketry and aeronautical occupations. The history of aviation is presented with an outlook for the future of the aviation and aerospace industries.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**AERO 122C**  
**F.A.A. PRIVATE PILOT GROUND SCHOOL 6 UNITS**  
**PREREQUISITE: None.**

**LECTURE: 6 hours per week.**

Complete preparation for the F.A.A. private pilot written examination including aerodynamics, weight and balance, flight computer, navigation, meteorology and federal air regulations.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**AERO 124**  
**AIRCRAFT POWER PLANTS 3 UNITS**  
**PREREQUISITE: None.**

**LECTURE: 3 hours per week.**

Designed to familiarize the aviator or prospective pilot with the operating principles and construction highlights of both reciprocating and jet aircraft engines. Enables the professional flier to operate and maintain the power plants of most modern as well as vintage aircraft.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**AERO 125**  
**FLIGHT SAFETY 2 UNITS**

**PREREQUISITE: None.**

**LECTURE: 2 hours per week.**

An in-depth study of flight safety including flight safety records, aircraft accident prevention, causal cause factors, agencies and organizations contributing to flight safety, pilot and command responsibilities, liability and litigation.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**AERO 126**  
**AIRCRAFT STRUCTURES 3 UNITS**

**PREREQUISITE: None.**

**LECTURE: 3 hours per week.**

The fundamentals of aircraft design and construction including the types of construction; reasons for variances in construction from aircraft to aircraft; manufacturing processes for each type of aircraft and the basic working principles of major aircraft systems.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**AERO 131B**  
**PRIVATE AND COMMERCIAL PILOT GROUND**  
**SCHOOL 6 UNITS**

**PREREQUISITE: None.**

**LECTURE: 6 hours per week.**

A review of the private pilot F.A.A. ground school and preparation for the F.A.A. private or commercial pilot examination. Topics include weight and balance and flight computers. The final is the F.A.A. written examination.

Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**AERO 134**  
**CIVIL AVIATION MANAGEMENT AND LAWS 3 UNITS**  
**PREREQUISITE: None.**

**LECTURE: 3 hours per week.**

The history of civil aviation in the United States including federal legislation on civil aviation; international treaties and agreements relevant to civil aviation; and regulations pertaining to the management of airports and airplane companies.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**AERO 140C  
INSTRUMENT GROUND SCHOOL AND FLIGHT  
SIMULATORS 4 UNITS**

**PREREQUISITE: None.**  
**LECTURE: 3 hours per week and**  
**LABORATORY: 3 hours per week.**

An instrument ground school which provides academic and practical training in the fundamentals of instrument flying. Includes aerodynamic factors, flight instruments and techniques, electronic navigational aids, flight planning, communication, air traffic control, and procedures such as departures, enroute, arrival, approach, missed approach, and emergencies. The subject matter is reinforced by flying the various procedures in the flight simulators. This is an excellent refresher course for students who currently possess an Instrument Rating or an Airline Transport Rating. **COMPLETION OF BASIC F.A.A. GROUND SCHOOL OR ENROLLMENT IN GROUND SCHOOL OR COMMERCIAL AERONAUTICAL COURSES IS REQUIRED.**

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**AERO 144  
AVIATION WEATHER 3 UNITS**

**PREREQUISITE: None.**  
**LECTURE: 3 hours per week.**

The aspects of weather as they relate to aircraft operation and flight safety. Includes basic and hazardous weather and interpretation of weather reports, forecasts, charts and maps.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**AERO 198  
AERONAUTICS WORK EXPERIENCE 1-4 UNITS**

**PREREQUISITE: None.**  
Supervised training in the form of on the job employment that will enhance the student's educational goals. The student's major and job must match. Students work 5-20 hours per week to earn units using the following formula: For paid work, 75 hours = 1 unit; for volunteer work, 60 hours = 1 unit. Students may earn a total of 16 units toward graduation in Work Experience 198 courses. Students **MUST** be working for pay or volunteer before registering for a Work Experience class. **NOTE: Only one section of Work Experience may be taken during a semester.**

*Associate Degree Applicable*  
*Course credit transfers to CSU for elective credit only.*

**AIR TRAVEL**

DIVISION: Applied Technology & Transportation  
DIVISION DEAN: Thomas Bauman, M.S., P.E.  
DEPARTMENT HEAD: Allen Moore, A.A.  
Technical 108  
(909) 384-8270  
OTHER FACULTY: Kevin Kammer, A.A.  
DIVISION SECRETARY: Patsy Martinez  
(909) 384-8902  
DIVISION OFFICE: Technical 108  
(909) 384-4451  
LIAISON COUNSELOR: Jennifer Mendoza, M.S.  
(909) 384-4404

**AIR TRAVEL CAREERS**

The Air Travel Careers curriculum prepares students for the, competitive customer service careers in the airline and travel industry. Classes include career survey, hiring requirements, communication skills, appearance/image standards, oral interviewing techniques, written employment skills, airline, airport and travel terminology and codes plus airline reservation systems.

A specialization in Air Travel Careers prepares students for work in every sector of the airline and travel industry such as flight attendant, reservationist, gate agent, customer/passenger service agent, ramp agent, sales and management plus a variety of other positions.

**AIR TRAVEL CAREERS  
ASSOCIATE OF SCIENCE DEGREE**

To graduate with a specialization in one of the Air Travel Careers majors, students must complete all the requirements for the appropriate certificate with a grade of C or better plus the general breadth requirements for the associate degree (minimum total = 60 units).

**AIR TRAVEL CAREERS CERTIFICATES**

Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

There are three Air Travel Career Certificates: (1) Air Travel Careers - *Flight*, (2) Air Travel Careers - *Ground*, and (3) Airline Travel Careers - *Travel*. Each of these certificates requires the core courses, plus specialized courses.

<b>CORE REQUIRED COURSES:</b>	<b>UNITS</b>
AIRTVL 101 Survey of Travel Careers	1.5
AIRTVL 103 Image, Attitude, and Appearance	1.5
AIRTVL 104 Terminology, Codes, and Operations	1.5
AIRTVL 105 Written Employment Skills	1.5
AIRTVL 106 Oral Interviewing Skills for Employment	1.5
AIRTVL 107 Cultural Awareness	1.5
AIRTVL 108 Service: Ground and In-flight	1.5
AIRTVL 109 Safety: Ground and In-flight	1.5
AIRTVL 110 Travel Reservation System I	1.0
AIRTVL 111 Travel Reservation System II	1.0
AIRTVL 197 Internship Seminar/Work Experience	3.0
PE 231 First Aid and CPR	3.0

**Three courses from the following list of Travel  
Geography are required for certification: 4.5**

AIRTVL 112 Travel Geography - United States	(1.5)
AIRTVL 113 Travel Geography - The Americas	(1.5)
AIRTVL 114 Travel Geography - Pacific Rim	(1.5)
AIRTVL 115 Travel Geography - Southern Europe	(1.5)
AIRTVL 116 Travel Geography - Northern Europe	(1.5)
AIRTVL 117 Travel Geography - Eastern Europe	(1.5)
AIRTVL 118 Travel Geography - Africa	(1.5)
AIRTVL 120 Travel Geography - Resort Destinations	(1.5)

**TOTAL UNITS for Air Travel Careers Core Requirements 24.5**

**SUGGESTED ELECTIVES**

AERO 121 Aviation Fundamentals	3.0
AERO 134 Civil Aviation Management and Laws	3.0
BUSAD 100 Introduction to Business	3.0
CIT 010 Beginning Keyboarding	3.0
ENGL 101 Freshman Composition	4.0
SPEECH 100 Elements of Public Speaking	3.0

**1. Air Travel Careers - Flight**

This certificate is designed to prepare students for entry-level work as flight attendants. Students completing this certificate are also qualified to perform the tasks associated with the Ground certificate.

**REQUIRED COURSES: UNITS**

<b>Air Travel Careers Core Requirements</b>	<b>24.5</b>
AIRTVL 102 Flight Attendant Survey	1.5

**Total Units for Air Travel Careers - Flight Specialized Courses** 1.5

**Total Units for Air Travel Careers - Flight Certificate** 26.0

*\*Pending approval from the California Community College Chancellor's Office*

**2. Air Travel Careers - Ground**

This certificate is designed to prepare students for entry-level work as ground support/ticket agents for the aviation industry.

**REQUIRED COURSES: UNITS**

<b>Air Travel Careers Core Requirements</b>	<b>24.5</b>
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**Total Units for Air Travel Careers - Ground Certificate** 24.5

*\*Pending approval from the California Community College Chancellor's Office*

**3. Air Travel Careers - Travel**

This is an advanced certificate designed to prepare students to be certified Travel Agents.

**REQUIRED COURSES: UNITS**

<b>Air Travel Careers Core Requirements</b>	<b>24.5</b>
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AIRTVL 130 Air Fares and Ticketing I: Domestic	3.0
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AIRTVL 131 Air Fares and Ticketing II: International	3.0
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AIRTVL 132 Introduction to Cruises, Tours, Ground Transportation and Accommodations	3.0
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AIRTVL 133 Travel Agency Sales and Business Management	1.5
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**Total Units for Air Travel Careers - Travel Specialized Courses** 10.5

**Total Units For Air Travel Careers - Travel Certificate** 35.0

*\*Pending approval from the California Community College Chancellor's Office*

**COURSES OFFERED BY THE DEPARTMENT OF AIR TRAVEL:**

**AIRTVL 101 SURVEY OF TRAVEL CAREERS** 1.5 UNITS

**PREREQUISITE: None.**

**LECTURE: 1.5 hours per week.**

Introduction to travel careers employment opportunities, qualifications, salary, and benefits. Includes an overview of employment in airports, hospitality industries, travel agencies, and aviation support businesses, and on airlines, trains, cruises, and tours.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**AIRTVL 102 FLIGHT ATTENDANT SURVEY** 1.5 UNITS

**PREREQUISITE: None.**

**LECTURE: 1.5 hours per week.**

Introduction to flight attendant and in-flight service team qualifications, employment opportunities, responsibilities, lifestyles, salaries and benefits.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**AIRTVL 103 IMAGE, ATTITUDE AND APPEARANCE** 1.5 UNITS

**PREREQUISITE: None.**

**LECTURE: 1.5 hours per week.**

Overview of the appearance, image, attitude, lifestyle decisions, goals, etiquette and wellness standards established by major United States airlines. Includes techniques to build confidence, professionalism, and business skills to secure successful employment in airline travel careers.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**AIRTVL 104 TERMINOLOGY, CODES AND OPERATIONS** 1.5 UNITS

**PREREQUISITE: None.**

**LECTURE: 1.5 hours per week.**

Survey of terminology unique to the airline travel industry, such as airline codes, airport and city codes, schedules, Official Airline Guide, federal agencies, airport operations, history, airline deregulation, mergers and acquisitions.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**AIRTVL 105 WRITTEN EMPLOYMENT SKILLS** 1.5 UNITS

**PREREQUISITE: None.**

**LECTURE: 1.5 hours per week.**

Prepares students with written skills required for employment such as drafting a resume, application, business letters, self-evaluation, marketing plan, personal register of employment data, employment testing, and document on employee/labor organizations and affirmative action.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**AIRTVL 106**  
**ORAL EMPLOYMENT INTERVIEW SKILLS 1.5 UNITS**  
**PREREQUISITE: None.**  
**LECTURE: 1.5 hours per week.**  
Prepares students for employment interviews through role playing and feedback on responding to interview questions. Student interviews are videotaped and critiqued, providing students with opportunities to see the image they project during mock interviews.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**AIRTVL 107**  
**CULTURAL AWARENESS 1.5 UNITS**  
**PREREQUISITE: None.**  
**LECTURE: 1.5 hours per week.**  
Introduction to the history and belief systems of various world cultures with a focus on etiquette, gestures, body language, eating/ drinking practices, business and social behavior.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**AIRTVL 108**  
**SERVICE: GROUND AND IN-FLIGHT 1.5 UNITS**  
**PREREQUISITE: None.**  
**LECTURE: 1.5 hours per week.**  
Survey of service techniques for ground and in-flight operations including the identification and pronunciation of foods and beverages, airline equipment to provide quality food/beverage service, and the development of a personal serving style.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**AIRTVL 109**  
**SAFETY: GROUND AND IN-FLIGHT 1.5 UNITS**  
**PREREQUISITE: None.**  
**LECTURE: 1.5 hours per week.**  
Survey of safety and security procedures for the travel industry including ground and in-flight equipment, passenger psychology, airport security, federal regulations and safety precautions.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**AIRTVL 110**  
**TRAVEL RESERVATION SYSTEM I 1 UNIT**  
**PREREQUISITE: None.**  
**LECTURE: .75 hour per week and**  
**LABORATORY: .75 hour per week.**  
Introduction to computer travel industry reservation and ticketing systems, with extensive practice in entering simulated reservations.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**AIRTVL 111**  
**TRAVEL RESERVATION SYSTEM II 1 UNIT**  
**PREREQUISITE: AIRTVL 110.**  
**LECTURE: .75 hour per week and**  
**LABORATORY: .75 hour per week.**  
A second-level course in computer travel industry reservation and ticketing systems, with extensive role-playing practice in procedures required for reservations, follow-up confirmations, and effective customer service.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**AIRTVL 112**  
**TRAVEL GEOGRAPHY - UNITED STATES 1.5 UNITS**  
**PREREQUISITE: None.**  
**LECTURE: 1.5 hours per week.**  
A travel-industry view of the United States including information on such items as regional accents and dialects, shopping, historical and recreational tourist destinations, regional culture, and ethnic diversity to maximize the travel experience in the United States.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**AIRTVL 113**  
**TRAVEL GEOGRAPHY - THE AMERICAS 1.5 UNITS**  
**PREREQUISITE: None.**  
**LECTURE: 1.5 hours per week.**  
A travel-industry view of the Americas including information on such items as culture, currency, language, shopping and tourist destinations in Canada, Mexico, the Caribbean, Central America, and South America.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**AIRTVL 114**  
**TRAVEL GEOGRAPHY - PACIFIC RIM 1.5 UNITS**  
**PREREQUISITE: None.**  
**LECTURE: 1.5 hours per week.**  
A travel-industry view of the Pacific Rim including information on such items as regional accents and dialects, currency, shopping, historical and recreational tourist destinations, regional culture, ethnic diversity, and customs requirements to maximize the travel experience in Australia, New Zealand, Japan, South Korea, Hong Kong, China, Taiwan, Thailand, Philippines, Tahiti, Samoa, Fiji, Singapore, Malaysia, Indonesia, and Indochina.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**AIRTVL 115**  
**TRAVEL GEOGRAPHY - SOUTHERN EUROPE 1.5 UNITS**  
**PREREQUISITE: None.**  
**LECTURE: 1.5 hours per week.**  
A travel-industry view of Southern Europe including information on such items as culture, currency, language, shopping, tourist destinations and regional cultures in Greece, Spain, Portugal, Italy, Austria, Germany, Switzerland, and France.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**AIRTVL 116**  
**TRAVEL GEOGRAPHY - NORTHERN EUROPE 1.5 UNITS**  
**PREREQUISITE: None.**  
**LECTURE: 1.5 hours per week.**  
A travel-industry view of Northern Europe including information on such items as customs requirements, currency, language and dialects, shopping, historical and recreational tourist destinations, regional culture, and ethnic diversity to maximize the travel experience in Scandinavia, the British Isles, and the Low Countries.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**AIRTVL 117**  
**TRAVEL GEOGRAPHY - EASTERN EUROPE** 1.5 UNITS

**PREREQUISITE:** None.

**LECTURE:** 1.5 hours per week.

A travel-industry view of Eastern Europe including information on such items as culture, currency, language, shopping, tourist destinations and regional cultures in Russia, Czechoslovakia, Hungary, Poland, the Yugoslav republics, Romania, and Albania. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**AIRTVL 118**  
**TRAVEL GEOGRAPHY - AFRICA** 1.5 UNITS

**PREREQUISITE:** None.

**LECTURE:** 1.5 hours per week.

A travel-industry view of Africa including information on such items as customs, entry requirements, currency, language and dialects, shopping, historical and recreation tourist destinations and regional cultures in Africa.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**AIRTVL 120**  
**TRAVEL GEOGRAPHY - RESORT DESTINATIONS** 1.5 UNITS

**PREREQUISITE:** None.

**LECTURE:** 1.5 hours per week.

A travel-industry view of resort destinations in and near the United States. Includes information on such items as local cruises and their corresponding itineraries, culture, currency, language, shopping, historical and recreational tourist destinations, ethnic diversity, and regional culture to maximize the travel experience in the Caribbean, the Bahamas, Bermuda, the Mexican Riviera, the Yucatan Peninsula, and the state of Hawaii.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**AIRTVL 130**  
**AIR FARES AND TICKETING I: DOMESTIC** 3 UNITS

**PREREQUISITE/COREQUISITE:** AIRTVL 110.

**LECTURE:** 3 hours per week.

This course provides an introduction into domestic airline fares, fare construction ticketing, route construction and corresponding rules. Included in the course will be instruction on correctly writing an airline ticket and an understanding of industry accountable documents and their use. The course is designed for those interested in becoming employed in the air travel industry as an airline ticket agent, travel agent, tour agent or airline reservationist.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**AIRTVL 131**  
**AIR FARES AND TICKETING II: INTERNATIONAL** 3 UNITS

**PREREQUISITES/COREQUISITES:** AIRTVL 111 and AIRTVL 130.

**LECTURE:** 3 hours per week.

This course provides an introduction into international airline fares, fare construction, ticketing, route construction and corresponding rules. Also covered will be international taxes, refunds and exchanges both domestic and international. This course is designed for those interested in becoming employed in the air travel industry as an airline ticket agent, travel agent, tour agent or airline reservationist. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**AIRTVL 132**  
**INTRODUCTION TO CRUISES, TOURS, GROUND TRANSPORTATION AND ACCOMMODATIONS** 3 UNITS

**PREREQUISITE:** None.

**LECTURE:** 3 hours per week.

This course provides an introduction into cruising, rail travel, tours and accommodations for students entering the travel agency/ airline industry. Each module will include information on products available to the public: destinations, itineraries, and services offered, cost of product, value comparison and the corresponding target market for the products.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**AIRTVL 133**  
**TRAVEL AGENCY SALES AND BUSINESS MANAGEMENT** 1.50 UNITS

**PREREQUISITE:** None.

**LECTURE:** 1.50 hours per week.

This course provides the travel student the information and knowledge required to successfully manage and operate a travel agency. Students will become familiar with sales and marketing technology, communication and money management. The course is designed to meet the industry standards of the Institute of Certified Travel Agents (ICTA). Each student will have the opportunity to earn a "Travel Career Development Test Certificate" awarded by the ICTA, which is recognized by travel industry employers nationwide. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**AIRTVL 197**  
**INTERNSHIP SEMINAR/WORK EXPERIENCE** 3 UNITS

**PREREQUISITES:** AIRTVL 104 and AIRTVL 110 or equivalent skills verified through occupational experience in a travel agency, other training institution, military or airlines.

**LECTURE:** 16 hours per week and 120 hours of non-paid work or 150 hours of paid work.

A lecture-based foundation for students' work experience in the field. Supervised training in the form of social skills, and application of information about airline and travel industries.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*



**AIRTVL 198**  
**AIR TRAVEL CAREERS WORK EXPERIENCE**  
**1-4 UNITS**

**PREREQUISITE: None.**

Supervised training in the form of on the job employment that will enhance the student's educational goals. The student's major and job must match. Students work 5-20 hours per week to earn units using the following formula: For paid work, 75 hours = 1 unit; for volunteer work, 60 hours = 1 unit. Students may earn a total of 16 units toward graduation in Work Experience 198 courses. Students MUST be working for pay or volunteer before registering for a Work Experience class. NOTE: Only one section of Work Experience may be taken during a semester.

*Associate Degree Applicable*

*Course credit transfers to CSU for elective credit only.*

**ALCOHOL/DRUG STUDIES**  
See courses within the  
**HUMAN SERVICES DEPARTMENT**

**AMERICAN SIGN LANGUAGE**

DIVISION: Humanities  
DIVISION DEAN: Marjorie Price, M.A., M.Ed.  
DEPARTMENT HEAD: Nori Sogomonian, M.A.  
North Hall 221-222  
(909) 384-8544  
OTHER FACULTY: Bert Reins, B.A.  
DIVISION SECRETARIES: Kelly Adcock  
(909) 384-8906  
Cheryl Benner  
(909) 384-8633  
DIVISION OFFICE: North Hall 236  
(909) 384-4445  
LIAISON COUNSELOR: Juan Zepeda, M.S.  
(909) 384-4404

Core competencies emphasized by courses in this department:

- Read and retain information.
- Write clearly.
- Speak clearly.
- Employ vocabulary of the subject studied.
- Demonstrate active listening skills.
- Apply learned knowledge to new situations.
- Work effectively in group settings.
- Demonstrate knowledge of and respect for other cultures.

**COURSES OFFERED BY THE DEPARTMENT OF AMERICAN SIGN LANGUAGE:**

**ASL 109**  
**AMERICAN SIGN LANGUAGE I** **4 UNITS**  
**PREREQUISITE: None.**  
**LECTURE: 4 hours per week.**

Develops communication skills in American Sign Language. Presents basic vocabulary and grammar of ASL with a review of the characteristics of the deaf community. Primary emphasis is on comprehension abilities.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

**ASL 110**  
**AMERICAN SIGN LANGUAGE II** **4 UNITS**  
**PREREQUISITE: ASL 109.**

**LECTURE: 4 hours per week.**

As part of the American Sign Language course sequence, ASL 110 is second in a series of four ASL courses designed for the student to develop proficiency in ASL usage. The course continues to stress the development of basic conversational skills with emphasis on expanding vocabulary and comprehension/production skills. Course content for ASL 110 is comprised of four basic categories: cultural awareness, grammatical features, vocabulary development, and conversational skills.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

**ASL 111**  
**AMERICAN SIGN LANGUAGE III** **4 UNITS**  
**PREREQUISITE: ASL 110.**

**LECTURE: 4 hours per week.**

Develops conversational skills in American Sign Language. Presents expanded vocabulary and grammar of ASL with a review of primary issues in deaf culture. Emphasis is on idiomatic constructions as well as comprehension and production skills.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

**ASL 112**  
**AMERICAN SIGN LANGUAGE IV** **4 UNITS**  
**PREREQUISITE: ASL 111.**

**LECTURE: 4 hours per week.**

The fourth course in a series designed to help students acquire communicative competency in American Sign Language, both comprehension and production skills within the contexts of literature and story telling. Emphasis is on cultural awareness, grammatical features, vocabulary development, and conversational skills.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

**ANATOMY**

See courses within the BIOLOGY DEPARTMENT

**ANTHROPOLOGY**

DIVISION: Social Science & Human Development  
DIVISION DEAN: Janice Noble M.Ed.  
DEPARTMENT HEAD: Janet Pielke Brennecke, M.A.  
FACULTY: Gary Olson, M.A.  
DIVISION SECRETARY: To Be Announced  
DIVISION OFFICE: Liberal Arts Building, Room 122  
(909) 384-8603  
LIAISON COUNSELOR: Laura Gomez, M.A.  
(909) 384-4404

Anthropology is the study of humanity in all times and places. As such, it has the broadest scope of any of the social sciences.

The Anthropology Department includes basic introductory courses in cultural and physical anthropology as well as archaeology. In addition, courses are offered which focus on selected areas, such as religion, art, and North American Indians.

With the goal of understanding people in all parts of the world, anthropology is useful to anyone living or working in a multicultural environment, such as the business world,

health sciences, or any other profession which involves working with people from diverse backgrounds. The courses within this department are designed to provide students with survival skills for the global community in which we live, a community in which all of the world's people are interdependent. Students planning to transfer to a four-year institution and major in anthropology should consult with a counselor regarding the transfer process and lower division requirements.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Write clearly.
- Find and interpret information.

### **COURSES OFFERED BY THE DEPARTMENT OF ANTHROPOLOGY:**

**ANTHRO 100**  
**INTRODUCTION TO ARCHEOLOGY** 3 UNITS  
**PREREQUISITE: None.**  
**LECTURE: 3 hours per week.**

The study of material remains, usually from the past, to describe and explain human behavior. Includes the methods, objectives, and history of archeology; a survey of the biological and cultural development of humanity as revealed by archaeological discoveries from around the world; and the contribution of archeology to an understanding of the present and the future.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

*CAN (California Articulation Number): ANTH 6*

**ANTHRO 102**  
**CULTURAL ANTHROPOLOGY** 3 UNITS  
**PREREQUISITE: None.**  
**LECTURE: 3 hours per week.**

The focus is on human behavior, studied through the approaches of archaeology, linguistics, and ethnology. Selected topics cover the range of cultural phenomena including material culture, social organization, and religion. This course qualifies for continuing education credit for nurses.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

*CAN (California Articulation Number): ANTH 4*

**ANTHRO 106**  
**PHYSICAL ANTHROPOLOGY** 3 UNITS  
**PREREQUISITE: None.**  
**LECTURE: 3 hours per week.**

The systematic study of humans as biological organisms including the origin and antiquity of humanity, our place in nature, modern biological diversity including race, and the future prospects for the human species.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

*CAN (California Articulation Number): ANTH 2*

**ANTHRO 107**  
**THE NORTH AMERICAN INDIANS** 3 UNITS  
**PREREQUISITE: None.**

**LECTURE: 3 hours per week.**

A systematic survey of North American Indian groups, from their prehistoric roots to the present. Includes their place in American history, U.S. Government policies and regulation, and future prospects for North American Indians.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

**ANTHRO 109**  
**TRIBAL AND ETHNIC ART** 3 UNITS  
**PREREQUISITE: None.**

**LECTURE: 3 hours per week.**

A world-wide survey of the artistic achievement of past and present tribal peoples with an emphasis on the meaning of art in each society. Art works are surveyed through films, slides, field trips and examination of actual art works and include cultures of North American Indians, ancient America, the Pacific, Africa and Australia.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

**ANTHRO 110**  
**TRIBAL AND ETHNIC RELIGIONS** 3 UNITS  
**PREREQUISITE: None.**

**LECTURE: 3 hours per week.**

A comparative study of supernaturalism in tribal societies, both past and present including witchcraft, magic, totemism, mythology and ritual, nativistic movements, and the religious context of drug usage. Prehistoric religion will be examined, as well as the belief systems of selected tribal peoples. This course is also offered as RELIG 110.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

**ANTHRO 222**  
**INDEPENDENT STUDY IN ANTHROPOLOGY** 1-3 UNITS

**PREREQUISITES: ANTHRO 100 or ANTHRO 102 or ANTHRO 106.**

**INDEPENDENT STUDY: 3-9 hours per week.**

Assigned projects involving research and analysis of selected topics or directed study for students who are interested in furthering their knowledge of Anthropology on an independent study basis. For each unit earned, students are required to devote three hours per week throughout the semester. Enrollment limited to those who meet independent study criteria. Prior to registration, a contract must be prepared. See instructor for details.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

*Limited transfer to UC; credit determined after transfer to UC.*

## ARCHITECTURE & ENVIRONMENTAL DESIGN

DIVISION: Science and Math  
 DIVISION DEAN: Haragewen Kinde, Ed.D.  
 DEPARTMENT HEAD: John Stanskas, Ph.D.  
 Chemistry 114  
 (909) 384-8268  
 DIVISION SECRETARY: Rose Garcia  
 DIVISION OFFICE: Chemistry 121  
 (909) 384-8645  
 LIAISON COUNSELOR: Rafael Herrera, M.S.  
 (909) 384-4404

The Architecture curriculum is designed to provide students with the following understanding and skills:

- 1) Verbal and graphic methods of communication;
- 2) An understanding of the social and environmental problems in the United States and other countries;
- 3) Creative solutions to existing and future problems in the United States and other countries; and
- 4) How to implement new ideas in a reasonable time frame.

The areas of study include how to develop a better quality of life through efficient housing, new building material development, new construction methods, new work methods, solar and wind power, efficient use of resources, and a reduction of waste in materials and time. A learning-by-doing approach is stressed in preparation for the job market or transfer to a university for further study in architecture, architectural engineering, city planning, or landscape architecture. Students planning to transfer to a four-year institution and major in one of these fields should consult with a counselor regarding the transfer process and lower division requirements.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Employ vocabulary of the subject studied.
- Utilize technology to organize and present information.
- Demonstrate working knowledge of basic computer function.
- Apply learned knowledge to new situations.
- Evaluate diverse artistic works.
- Demonstrate creative thought through original expression.

### ARCHITECTURE & ENVIRONMENTAL DESIGN ASSOCIATE OF ARTS DEGREE

To graduate with a specialization in Architectural Design Studies, a student must complete the following courses in addition to the general breadth requirements for an Associate's Degree. For transfer students, these courses will provide students with the tools needed to construct a portfolio that will be required to transfer into Architecture Programs at 4-year institutions. Along with a successful portfolio, these courses should also constitute the first two years of an Architecture Program. In addition, these courses should help students interested in transferring to 4-year institutions as Environmental Design, Landscape Architecture, Interior Design and Urban Planning majors.

REQUIRED COURSES:	UNITS
ARCH 100 Environmental Design I	3
ARCH 101 Environmental Design II	3
ARCH 145 History of Architecture: Ancient to Gothic	3
ARCH 146 History of Architecture: Renaissance to Modern	3
ARCH 200 Architectural Design I	4
ARCH 201 Architectural Design II	4
ARCH 220 Architectural CAD I	4
ARCH 250 Materials and Construction	4
ARCH 270 Portfolio Design	1
PHYSIC 150A or PHYSIC 200 General Physics	5-6
ART 132x4 Life Drawing	3
<b>TOTAL UNITS:</b>	<b>37-38</b>

RECOMMENDED COURSES:	UNITS
<i>Students are encouraged to take these courses as part of their General Education program:</i>	
CS 110 Introduction to Computer Science	3
ART 120 Two-Dimensional Design	3
ART 145 Graphic Design	3
MATH 093 Plane Geometry	3
MATH 103 Trigonometry	4

### ARCHITECTURE CERTIFICATE

Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

### COMPUTER-AIDED DRAFTING TECHNICIAN CERTIFICATE

This certificate is designed to prepare students for entry-level work in the fields of architecture, urban planning, interior design, electronics design and manufacturing design. Computer Aided Drafting, CAD, is the primary tool used to produce and present work completed in these fields. Students completing this certificate will most likely work for a licensed architect, structural engineer, mechanical engineer or for local, state or federal governmental agencies or urban planning commissions.

REQUIRED COURSES:	UNITS
ARCH 120 Intro to Computer-Aided Drafting	4
ARCH 146 History of Architecture: Renaissance To Modern	3
ARCH 220 Architectural CAD I	4
ARCH 221 Architectural CAD II	4
ARCH 250 Materials and Construction	4
MATH 093 Plane Geometry	3
ENGL 015 Preparation for College Writing	4
ART 132x4 Life Drawing	3
<b>TOTAL UNITS:</b>	<b>29</b>

RECOMMENDED COURSES:	UNITS
<i>Students are encouraged, but not required, to enroll in the following:</i>	

CS 110 Instruction to Computer Science	3
INSPEC 010 Funds. of Construction Inspection I	3
INSPEC 011 Funds. of Construction Inspection II	3
INSPEC 012 Funds. of Construction Inspection III	3
<i>*Pending approval from the California Community College Chancellor's Office</i>	

### COURSES OFFERED BY THE DEPARTMENT OF ARCHITECTURE & ENVIRONMENTAL DESIGN:

**ARCH 100**  
**ENVIRONMENTAL DESIGN I** 3 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 2 hours per week and  
**LABORATORY:** 3 hours per week.  
An introduction to the design process, to the vocabulary of design and the basic principles of environmental design, landscape design, and urban planning.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ARCH 101**  
**ENVIRONMENTAL DESIGN II** 3 UNITS  
**PREREQUISITE:** ARCH 100.  
**LECTURE:** 2 hours per week and  
**LABORATORY:** 3 hours per week.  
A continuation of ARCH 100, with an emphasis on composition and basic design as applied to both architecture and art. A series of projects will introduce students to the use of line, color, form and materials, and will promote awareness of environmental concerns.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ARCH 120**  
**INTRODUCTION TO COMPUTER AIDED DRAFTING** 4 UNITS

**PREREQUISITE:** None.  
**DEPARTMENTAL ADVISORY:** CS 110.  
**LECTURE:** 2 hours per week and  
**LABORATORY:** 6 hours per week.  
An introduction to the theories and principles of computer-aided design/drafting (CAD) using AutoCAD and to its principal applications in the fields of architecture, design, manufacturing, construction, and planning are explored. The technical aspects of generating, evaluating, modeling, drafting, and rendering design solutions will be introduced.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ARCH 145**  
**HISTORY OF ARCHITECTURE: EARLY DESIGN TO GOTHIC** 3 UNITS

**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week.  
A survey of Western architectural history from the early Egyptians to the Gothic Period, including a comparative study of architecture and architects with emphasis on the people, locations, structures, materials, and methods of construction.  
*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

**ARCH 146**  
**HISTORY OF ARCHITECTURE: RENAISSANCE TO MODERN** 3 UNITS

**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week.  
Survey of Western architectural history, including a comparative study of architecture and architects, with emphasis on the people, locations, structures, materials, and methods of construction. Includes Renaissance, Mannerist, Baroque, Rococo, Native American, American Colonial, Neoclassicism, Romantic Revival, 19th Century Industrialization, Ecole des Beaux Arts, Late 19th Century, Chicago School, Sullivanesque, Arts and Crafts, International Style, Art Nouveau, Art Deco, Art Moderne, German Expressionism, Neo-Expressionism, Late Modernism, and Postmodernism.

**ARCH 200**  
**ARCHITECTURAL DESIGN I** 4 UNITS  
**PREREQUISITE:** ARCH 101.  
**LECTURE:** 3 hour per week and  
**LABORATORY:** 3 hours per week.  
An Introduction to design skills and problem-solving techniques as they apply to the architectural profession.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*  
*Limited transfer to UC; contact a counselor for details.*

**ARCH 201**  
**ARCHITECTURAL DESIGN II** 4 UNITS  
**PREREQUISITE:** ARCH 200.  
**LECTURE:** 1 hour per week and  
**LABORATORY:** 8 hours per week.

A continuation of ARCH 200. Architectural design processes are explored, including advanced problem-solving in spatial relationships, structures and human requirements. Includes advanced model building.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*  
*Limited transfer to UC; contact a counselor for details.*

**ARCH 220**  
**ARCHITECTURAL COMPUTER AIDED DRAFTING I** 3 UNITS

**PREREQUISITE:** ARCH 120.  
**LECTURE:** 2 hours per week and  
**LABORATORY:** 3 hours per week.  
An introduction to the theories and principles of computer aided design/drafting (CAD) using AutoCAD and to its principal applications in the field of architecture by generating, evaluating, modeling, drafting and rendering design solutions. (Formerly ARCH 141)  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ARCH 221**  
**ARCHITECTURAL COMPUTER AIDED DRAFTING II** 4 UNITS

**PREREQUISITES:** ARCH 220.  
**LECTURE:** 2 hour per week and  
**LABORATORY:** 6 hours per week.  
A continuation of ARCH 220 and continues to familiarize students with the preparation of preliminary studies, construction drawings, detail drawing and building code applications. This includes complete construction drawings of light wood frame and heavy timber construction and utilizes computer aided design drafting (CAD). (Formerly ARCH 230)  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ARCH 250**  
**MATERIALS AND CONSTRUCTION** **4 UNITS**  
**PREREQUISITE: ARCH 146.**

**LECTURE: 3 hours per week and**  
**LABORATORY: 3 hours per week.**

A survey of sources, properties and production of the common materials used in construction such as steel, iron, non-ferrous metals and their alloys, concrete, brick and wood. Construction projects will give students knowledge and experience in building construction as it relates to architecture.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ARCH 270**  
**PORTFOLIO DESIGN** **1 UNIT**  
**PREREQUISITE: ARCH 200.**

**LABORATORY: 3 hours per week.**

This course is designed to assist architecture students in the preparation of their portfolio. The design portfolio is required to transfer to most four-year/five-year Architecture programs. Students should be enrolled in their last semester at Valley College before enrolling in this course.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ART**

DIVISION: Humanities  
 DIVISION DEAN: Marjorie Price, M.A., M.Ed.  
 DEPARTMENT HEAD: Mary Sue Andersen, M.F.A.  
 DEPARTMENT OFFICE: Art Gallery  
 (909) 384-8939  
 OTHER FACULTY: Gary Calote, M.A.  
 James Stewart, M.F.A.  
 DEPARTMENT ASS'T: Diane Metz  
 Art Gallery  
 (909) 384-8939  
 DIVISION SECRETARIES: Kelly Adcock  
 (909) 384-8906  
 Cheryl Benner  
 (909) 384-8633  
 DIVISION OFFICE: North Hall 236  
 (909) 384-8633  
 LIAISON COUNSELOR: Juan Zepeda, M.S.  
 (909) 384-4404

The study of art involves both an appreciation of the cultural heritage of art and the development of skills. Consequently, the Art Department offers courses in art history as well as studio courses in drawing, design, ceramics, painting, filmmaking, life drawing, computer graphics, graphic design, computer animation, web & multimedia design, digital photography, basic photography design in glass, sculpture, and glassblowing. In addition to an associate degree in fine arts, the department offers two certificates in graphic design and web+multimedia design, designed for students seeking employment in the design, advertising, and entertainment fields.

A baccalaureate degree in art qualifies students for employment in the fine arts, industry, and education. Students planning to transfer to a four-year institution and major in art should consult with a counselor regarding the transfer process and lower division requirements.

Many of the courses in this department are activity courses that may be taken more than once. These

courses are indicated by (x) following the three-digit course number; the number following the (x) indicates the number of times the course may be repeated.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Employ vocabulary of the subject studied.
- Demonstrate active listening skills.
- Find and interpret information.
- Utilize technology to organize and present information.
- Demonstrate working knowledge of basic computer function.
- Evaluate diverse artistic works.
- Demonstrate creative thought through original expression.

**ART ASSOCIATE OF ARTS DEGREES**

**1. ART**

To graduate with a specialization in Art, students must complete the following required courses plus the general breadth requirements for the Associate Degree (total = 60 units). The art courses chosen should reflect the individual student's interests.

<b>REQUIRED COURSES:</b>	<b>UNITS</b>
ART 100 Art History: The Stone Age to the Middle Ages	3
ART 102 Art History: The Renaissance to the Present	3
ART 120 Two Dimensional Design	3
or	
ART 175x4 Sculpture	(3)
or	
ART 212x4 Ceramics	(3)
ART 124x4 Drawing	3
ART 126x4 Painting	3
or	
ART 132x4 Life Drawing	(3)
ART 148 Beginning Computer Graphics	3
ART 164x4 Creative Filmmaking	3
<b>TOTAL UNITS:</b>	<b>21</b>

**2. GRAPHIC DESIGN**

<b>REQUIRED COURSES:</b>	<b>UNITS</b>
ART 100 Art History: The Stone Age to the Middle Ages	3
ART 102 Art History: The Renaissance to the Present	3
ART 120 Two-Dimensional Design	3
ART 124x4 Drawing	3
ART 145 Graphic Design	3
ART 148 Beginning Computer Graphics	3
ART 158x4 Basic Photography	3
<b>Three units from the list of RECOMMENDED COURSES</b>	<b>3</b>
<b>TOTAL UNITS:</b>	<b>24</b>

<b>RECOMMENDED COURSES:</b>	<b>UNITS</b>
ART 126x4 Painting	3
ART 132x4 Life Drawing	3
ART 149 Intermediate Computer Graphics	3
ART 150 Advanced Computer Graphics	3
ART 164x4 Creative Filmmaking	3
ART 180 Beginning Computer Animation	3

### GRAPHIC DESIGN CERTIFICATE

Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select. This certificate is designed to prepare students for entry-level work using a variety of print, electronic, and film media to create designs that meet clients' commercial needs. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

<b>REQUIRED COURSES:</b>	<b>UNITS</b>
ENGL 015 Preparation for College Writing	4
or	
ENGL 101 Freshman Composition	(4)
ART 100 Art History: The Stone Age to the Middle Ages	3
or	
ART 102 Art History: The Renaissance to the Present	(3)
or	
ART 105 History of Modern Art	(3)
ART 120 Two-Dimensional Design	3
ART 145 Graphic Design	3
ART 148 Beginning Computer Graphics	3
ART 149 Intermediate Computer Graphics	3
ART 161 Digital Photography	3
ART 185 Beginning Web and Multimedia Design	3
<b>TOTAL UNITS:</b>	<b>25</b>

### WEB AND MULTIMEDIA DESIGN CERTIFICATE

This certificate is designed to prepare students for entry-level work in a variety of occupations related to web site design, development, creation, and maintenance. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

<b>REQUIRED COURSES:</b>	<b>UNITS</b>
ENGL 015 Preparation for College Writing	4
or	
ENGL 101 Freshman Composition	(4)
ART 100 Art History: The Stone Age to the Middle Ages	3
or	
ART 102 Art History: The Renaissance to the Present	(3)
or	
ART 105 History of Modern Art	(3)
ART 120 Two-Dimensional Design	3
ART 148 Beginning Computer Graphics	3
ART 161 Digital Photography	3
ART 180 Beginning Computer Animation	3
ART 185 Beginning Web and Multimedia Design	3
ART 186 Intermediate Web and Multimedia Design	3
<b>TOTAL UNITS:</b>	<b>25</b>

### COURSES OFFERED BY THE DEPARTMENT OF ART:

#### ART 100 ART HISTORY: THE STONE AGE TO THE MIDDLE AGES 3 UNITS

**PREREQUISITE:** None.

**LECTURE:** 3 hours per week.

A survey of Western art from the Stone Age to the Middle Ages including the art of Egypt, Greece, and the Aegean; and Etruscan, Roman, early Christian, Byzantine, Islamic, early Medieval, Romanesque and Gothic art.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

*CAN (California Articulation Number): ART 2*

#### ART 102 ART HISTORY: THE RENAISSANCE TO PRESENT 3 UNITS

**PREREQUISITE:** None.

**LECTURE:** 3 hours per week.

Presents a survey of Western art from the Renaissance through the 20<sup>th</sup> Century. Topics covered include 15<sup>th</sup> and 16<sup>th</sup> century Italian art; Renaissance and Baroque art; the Rococo movement; Romanticism; Realism; Impressionism; Cubism; Surrealism and other styles of the 19<sup>th</sup> and 20<sup>th</sup> centuries.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

*CAN (California Articulation Number): ART 4*

#### ART 103 ART APPRECIATION 3 UNITS

**PREREQUISITE:** None.

**LECTURE:** 3 hours per week.

A multicultural exploration of the form and content of two- and three-dimensional art. Topics include: function of art in a society; the artists language; techniques employed in creating painting, sculpture and other media; overview of the history of art.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

*Limited transfer to UC; contact a counselor for details.*

#### ART 105 HISTORY OF MODERN ART 3 UNITS

**PREREQUISITE:** None.

**LECTURE:** 3 hours per week.

Survey of Western modern art from 1900 to the present, including cubism, fauvism, futurism, totalitarianism, constructivism, impressionism, surrealism, post-impressionism, pop art, and architectural movements of the 20<sup>th</sup> century.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

#### ART 107 ART HISTORY: AFRICA, ASIA, THE AMERICAS, AND OCEANIA 3 UNITS

**PREREQUISITE:** None.

**LECTURE:** 3 hours per week.

The survey of art from Africa, Asia, the Americas, and Oceania. Includes examination of the religious and social factors influencing art, artifacts, and architecture.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

**ART 108**  
**MEXICAN ART HISTORY** 3 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week.  
Survey of Mexican art from pre-columbian times through the 20<sup>th</sup> century muralists.  
*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

**ART 110**  
**HISTORY OF AMERICAN CINEMA** 3 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week.  
Covers the history and cultural influences of the American Cinema, including the origins of the motion picture, the rise and dominance of Hollywood, the decline of the Studio Era, and the emergence of the independent film. Topics include the historical context of the motion picture industry and its relevance to the contemporary viewer, the aesthetics of film, the director, and the studio system.  
*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

**ART 111**  
**STUDIES IN FILM APPRECIATION** 3 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week.  
A study of script, directing, editing and other aspects of film making, aimed at providing a critical awareness of film technique and construction, and an understanding of what a successful film must possess.  
*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

**ART 120**  
**TWO-DIMENSIONAL DESIGN** 3 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 2 hours per week and  
**LABORATORY:** 3 hours per week.  
A progressive study of the elements and principles of two-dimensional design. Focus on the concepts, tools, and techniques intrinsic to visual communication. Included are color theory and the use of color to manipulate the illusion of space on a two-dimensional plane.  
*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*  
*CAN (California Articulation Number): ART 14*

**ART 124x4**  
**DRAWING** 3 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 2 hours per week and  
**LABORATORY:** 3 hours per week.  
A progressive study of the analysis and investigation of form, space, and concept using a variety of materials, such as charcoal, ink, pencil, tempera, collage, and mixed media. Includes the theory and analysis of perspective in two- and three-dimensional compositions, such as the various means of representing three-dimensional forms in space through aerial and linear perspective. Content and creativity are emphasized as students' skills develop. This course may be taken four times.  
*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*  
*CAN (California Articulation Number): ART 8*

**ART 126x4**  
**PAINTING** 3 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 2 hours per week and  
**LABORATORY:** 3 hours per week.  
A progressive study of the fundamentals of painting including techniques of composition, color mixing, spatial relationships, and imagery. This course may be taken four times.  
*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*  
*CAN (California Articulation Number): ART 10*

**ART 132x4**  
**LIFE DRAWING** 3 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 2 hours per week and  
**LABORATORY:** 3 hours per week.  
A progressive study of anatomy in figure drawing and an examination of the creative uses of human figures in art. Includes basic studies in contour, proportion, gesture, volume, and the functional qualities of the human form and the graphic interpretations of human figures with charcoal, pencil, pastel, colored pencil, paint, and mixed media. This course may be taken four times.  
*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*  
*CAN (California Articulation Number): ART 24*

**ART 145**  
**GRAPHIC DESIGN** 3 UNITS  
**LECTURE:** 2 hours per week and  
**LABORATORY:** 3 hours per week.  
Focus on the technical skills necessary to enter the graphic design field and the impact of artwork on different audiences. Including the development of a personal style, increased facility with graphic software and analysis of content for a client's strategies and goals. Through reading and discussion, students will learn how to analyze, design, discuss and present work in a professional manner.  
*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

**ART 148**  
**BEGINNING COMPUTER GRAPHICS** 3 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 2 hours per week and  
**LABORATORY:** 3 hours per week.  
Focuses on desktop publishing and photographic digital imaging. Skills such as layout, page design and scanning and photographic are practiced.  
*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

**ART 149**  
**INTERMEDIATE COMPUTER GRAPHICS** 3 UNITS  
**PREREQUISITE:** ART 148.  
**LECTURE:** 2 hours per week and  
**LABORATORY:** 3 hours per week.  
Focus is on photographic digital imaging and manipulation. Skills such as scanning, photographic correction and combining photographic images are practiced. Projects will involve creating computer-generated images, integrating type, and inserting objects and a variety of materials into photographs.  
*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

**ART 150**  
**ADVANCED COMPUTER GRAPHICS** 3 UNITS  
**PREREQUISITE:** ART 149.  
**LECTURE:** 2 hours per week and  
**LABORATORY:** 3 hours per week.  
 Focuses on layout, imaging and illustration skills. Methods of presentation portfolios will be examined. Skills such as optimizing finished artwork for print media and for screen presentation will be practiced.  
*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

**ART 158x4**  
**BASIC PHOTOGRAPHY** 3 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 2 hours per week and  
**LABORATORY:** 3 hours per week.  
 A basic course in photography designed for both art majors and non-art majors, including photographic terminology such as composition, tonality, color relationships and elements of balance; hands-on experience with cameras and studio equipment; analyses of great photographs; the development of visual literacy; and the development of an understanding of photography's relationship to the world of visual imagery. This course may be taken four times.  
*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*  
*CAN (California Articulation Number): ART 18*

**ART 161**  
**DIGITAL PHOTOGRAPHY** 3 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 2 hours per week and  
**LABORATORY:** 3 hours per week.  
 Focuses on visual communication and producing expressive images. Skills included are correcting and enhancing images using computers. This course is designed both for Art Department certificate majors and the general public. Students will supply their own film or digital camera and output media supplies.  
*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

**ART 164x4**  
**CREATIVE FILMMAKING** 1.5-3 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 1 - 2 hours per week and  
**LABORATORY:** 1.5 - 3 hours per week.  
 A progressive study of the fundamentals of filmmaking including researching and writing treatments; drawing storyboards; producing films in 8mm, video, and 16mm formats; titling; and editing. Students work in crews and participate in all facets of filmmaking, such as operating camera and sound equipment; directing; set building; lighting; and casting. This course may be taken four times.  
*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

**ART 175x4**  
**SCULPTURE** 3 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 2 hours per week and  
**LABORATORY:** 3 hours per week.  
 A progressive study of the fundamentals of sculpture with a focus on techniques of three-dimensional composition, spatial relationships, and imagery. Includes armature building, plaster mold making, and experiments with various materials, such as clay, wood, plaster, and styrofoam. This course may be taken four times.  
*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*  
*CAN (California Articulation Number): ART 12*

**ART 180**  
**BEGINNING COMPUTER ANIMATION** 3 UNITS  
**PREREQUISITE:** None.  
**DEPARTMENTAL ADVISORY:** ART 148.  
**LECTURE:** 2 hours per week and  
**LABORATORY:** 3 hours per week.  
 Focuses on computer animation, rendering and modeling. The introduction semester emphasizes the construction of space environments and objects in motion. Included are the principles and skills for building objects in a landscape, and changing environmental over time, such as clouds, atmospheric conditions and reflections.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ART 181**  
**INTERMEDIATE COMPUTER ANIMATION** 3 UNITS  
**PREREQUISITE:** ART 180.  
**LECTURE:** 2 hours per week and  
**LABORATORY:** 3 hours per week.  
 Focus on computer animation, rendering and modeling. Included are such skills as complex construction of 3-dimensional models and complex movement control of multiple moving parts.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ART 182**  
**BEGINNING DIGITAL VIDEO EDITING** 3 UNITS  
**PREREQUISITE:** ART 181.  
**LECTURE:** 2 hours per week and  
**LABORATORY:** 3 hours per week.  
 Focuses on rendering animated movies. Instruction emphasizes combining and integrating animations with still images and created footage. Students will work with video editing and special effects software to create QuickTime movies. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ART 183**  
**INTERMEDIATE DIGITAL VIDEO EDITING** 3 UNITS  
**PREREQUISITE:** ART 182.  
**LECTURE:** 2 hours per week and  
**LABORATORY:** 3 hours per week.  
 Focuses on making multi-layer video compositions. Included are such skills as motion control and time-varying special effects.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*



**ART 185**  
**BEGINNING WEB AND MULTIMEDIA DESIGN** 3 UNITS

**PREREQUISITE:** None.  
**DEPARTMENTAL ADVISORY:** ART 148.  
**LECTURE:** 2 hours per week and  
**LABORATORY:** 3 hours per week.

Focus on elements of Web page and CD-ROM production. The course will emphasize preparing material and designing for interactive projects. Practical and theoretical understanding of problems relating to digital technologies will be stressed.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ART 186**  
**INTERMEDIATE WEB AND MULTIMEDIA**  
**DESIGN: FLASH** 3 UNITS

**PREREQUISITE:** None.  
**DEPARTMENTAL ADVISORY:** ART 185.  
**LECTURE:** 2 hours per week and  
**LABORATORY:** 3 hours per week.

Focus on interactive motion graphics for web site and disk distribution, using applications such as Macromedia Flash. Emphasis will be given to design concept well as an understanding of structure and impact web media and CD-ROM.

*Associate Degree Applicable*  
*Course credit transfers to CSU for elective credit only.*

**ART 187**  
**ADVANCED WEB AND MULTIMEDIA DESIGN** 3 UNITS

**PREREQUISITE:** ART 186.  
**LECTURE:** 2 hours per week and  
**LABORATORY:** 3 hours per week.

Focus is on the elements of CD-ROM design and production. Practical experience in using programs such as MacroMedia Director, sound editing, and animation software will be emphasized. Conceptualization, research and the design of large projects will be stressed.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ART 188**  
**PORTFOLIO WEB AND MULTIMEDIA DESIGN** 3 UNITS

**PREREQUISITE:** ART 187.  
**LECTURE:** 2 hours per week and  
**LABORATORY:** 3 hours per week.

Focus is on multimedia project planning and design production. This course emphasizes planning, research and client communications skills as preparation for designing and executing a multimedia project. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ART 198**  
**ART WORK EXPERIENCE** 1-4 UNITS  
**PREREQUISITE:** None.

Supervised training in the form of on the job employment that will enhance the student's educational goals. The student's major and job must match. Students work 5-20 hours per week to earn units using the following formula: For paid work, 75 hours = 1 unit; for volunteer work, 60 hours = 1 unit. Students may earn a total of 16 units toward graduation in Work Experience 198 courses. Students MUST be working for pay or volunteer before registering for a Work Experience class. NOTE: Only one section of Work Experience may be taken during a semester.

*Associate Degree Applicable*  
*Course credit transfers to CSU for elective credit only.*

**ART 212x4**  
**CERAMICS** 3 UNITS  
**PREREQUISITE:** None.

**LECTURE:** 2 hours per week and  
**LABORATORY:** 3 hours per week.

A progressive study of the fundamentals of ceramics including hand-building techniques, use of the potter's wheel, and methods of decorating and glazing. Students produce cylinders, bottles, vases, bowls, plates, lids, and vessels with handles, such as mugs, pitchers, and tea pots. This course may be taken four times.

*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*  
*CAN (California Articulation Number): ART 6*

**ART 240x4**  
**GLASSBLOWING** 3 UNITS  
**PREREQUISITE:** None.

**LECTURE:** 2 hours per week and  
**LABORATORY:** 3 hours per week.

A progressive study of glass working techniques including designing and producing vessel and sculptural forms in hot glass. Emphasis on exploration of color, hot applications, team work, repeatable forms, sandblasting, cold working/fabrications, and non-conventional methods. This course may be taken four times.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ART 270x4**  
**DESIGN IN GLASS** 3 UNITS  
**PREREQUISITE:** None.

**LECTURE:** 2 hours per week and  
**LABORATORY:** 3 hours per week.

A progressive study of glass-working techniques including designing and producing functional, decorative, and sculptural forms in kiln-fired glass; composition in two dimensions using fusion/lamination of colored glass elements; shallow relief slumping; three-dimensional relief using molds; and solid glass casting, such as pate de verre, lost wax, and sand casting. This course may be taken four times.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ART 285**  
**HONORS IN ART** **3 UNITS**  
**PREREQUISITE: Complete ART 102 or ART 120x4 or ART 124x4 or ART 126x4 with an A or B, or COREQUISITE: Art 102 or ART 120x4 or ART 124x4 or ART 126x4 and an overall GPA of 3.0 or higher.**  
**LECTURE: 3 hours per week.**

A study of contemporary movements in art and the way these ideas are manifest in the work of artists. Includes an overview of the major innovations of Modernism and how those led to Postmodernist concerns, such as deconstructionism, appropriationism, and semiotics, as well as the impact of language, politics, and the mass media on contemporary art.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

## ASTRONOMY

See the Department of PHYSICS/ASTRONOMY

## AUTOMOTIVE TECHNOLOGY

DIVISION: Applied Technology & Transportation  
 DIVISION DEAN: Thomas Bauman, M.S., P.E.  
 DEPARTMENT HEAD: Richard Jaramillo, A.A. (909) 384-8505  
 OTHER FACULTY: Guy M. Hinrichs, Sr., A.A.  
 Manuel Loera, A.S.  
 Mark Williams, B.S.  
 Donald Wilson  
 DIVISION SECRETARY: Patsy Martinez (909) 384-8902  
 DIVISION OFFICE: Technical 108 (909) 384-4451  
 LIAISON COUNSELOR: Jennifer Mendoza, M.S. (909) 384-4404

The Automotive Department offers courses designed to provide the skills and knowledge required for immediate employment as well as for students with a personal interest in automotive technology.

The course of study in automotive technology may lead to an Associate of Science Degree or a vocational certificate.

### AUTOMOTIVE TECHNOLOGY ASSOCIATE OF SCIENCE DEGREE

To graduate with a specialization in Automotive Technology, students must complete the following required courses for one of the following certificates plus the general breadth requirements for the Associate Degree (minimum total = 60 units).

### AUTOMOTIVE TECHNOLOGY CERTIFICATES

Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

#### 1. AUTOMATIC TRANSMISSION CERTIFICATE

This certificate is designed to prepare students for entry-level work as an automatic transmission specialist. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

<b>REQUIRED COURSES:</b>		<b>UNITS</b>
AUTO 064	Automotive Electrical: Battery, Starting & Charging Systems	4
Or		
AUTO 065	Electrical Accessory Diagnostic	(4)
AUTO 075x3	Automatic Transmissions Rear Wheel Drive	2-6
AUTO 076x3	Automatic Transaxles Front Wheel Drive	2-6
AUTO 077	Manual Transmissions and Transaxles	4
AUTO 084	General Automotive Technology	4
AUTO 090x3	Engine Repair	6
TECALC 950	Shop Calculations	3
Or		
MATH 942	Arithmetic	(3)
Or		
	Higher-level math course	
<b>TOTAL UNITS:</b>		<b>25-33</b>

#### 2. BASIC AUTOMOTIVE BODY AND PAINT TECHNICIAN

This certificate is designed to prepare students for entry-level work as an auto body repair apprentice, an auto painter apprentice, or in related areas of an automotive dealership or shop, such as chassis, front end, brake or frame repair, and parts counter clerk. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

<b>REQUIRED COURSES:</b>		<b>UNITS</b>
AUTO 038x3	Basic Auto Body	9
AUTO 039x3	Secondary Auto Body	9
AUTO 048x3	Intermediate Auto Body	9
AUTO 055	Advanced Auto Body	5
TECALC 950	Shop Calculations	3
<b>TOTAL UNITS:</b>		<b>35</b>

*Auto 038x3 may be waived through the Articulation 2+2+2 program with prior agreement with the Auto Body and Refinishing instructor.*

#### 3. ADVANCED AUTOMOTIVE BODY AND PAINT TECHNICIAN

This certificate is designed to prepare students for entry-level work as an auto body repair apprentice and an auto painter apprentice beyond the Basic Automotive Body and Paint Technician Certificate, and to prepare students for Automotive Service Excellence (ASE) certification. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

<b>REQUIRED COURSES:</b>		<b>UNITS</b>
AUTO 038x3	Basic Auto Body	9
AUTO 039x3	Secondary Auto Body	9
AUTO 048x3	Intermediate Auto Body	9
AUTO 055	Advanced Auto Body	5
AUTO 056	Automotive Heating and Air Conditioning	4

**Must complete one subject from each category:**

#### Category #1

AUTO 052	Automotive Suspension and Steering	4
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<b>Category #2</b>		
AUTO 064	Automotive Electrical	4
or		
AUTO 065	Automotive Body Electrical	(4)
<b>Category #3</b>		
TECALC 950	Shop Calculations	3
<b>TOTAL UNITS:</b>		<b>47</b>

#### 4. AUTOMOTIVE TECHNICIAN CERTIFICATE

This certificate is designed to prepare students for entry-level work as automotive technicians working in areas such as new car preps, engine performance diagnoses, automotive maintenance, and automotive service. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

<b>REQUIRED COURSES:</b>	<b>UNITS</b>
AUTO 050 Automotive Brake	4
AUTO 052 Automotive Suspension and Steering	4
AUTO 056 Automotive Heating and Air Conditioning	4
AUTO 064 Automotive Electrical: Battery, Starting & Charging Systems	4
AUTO 065 Electrical Accessory Diagnostic	4
AUTO 068 Engine Performance-Ignition Systems	4
AUTO 069 Engine Performance-Fuel and Exhaust Systems	4
AUTO 075x3 Automatic Transmissions Rear Wheel Drive	2-6
Or	
AUTO 076x3 Automatic Transaxles Front Wheel Drive	(2-6)
AUTO 077 Manual Transmissions and Transaxles	4
AUTO 084 General Automotive Technology	4
AUTO 090x3 Engine Repair	6
TECALC 950 Shop Calculations	3
Or	
MATH 942 Arithmetic	(3)
Or	
Higher-level math course	
<b>TOTAL UNITS:</b>	<b>47-51</b>

#### 5. ENGINE PERFORMANCE CERTIFICATE

This certificate is designed to prepare students for entry-level work as engine performance specialists in areas such as computer systems, electrical systems, engine fuel and exhaust systems, and basic engine diagnosis. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

<b>REQUIRED COURSES:</b>	<b>UNITS</b>
AUTO 064 Automotive Electrical: Battery, Starting & Charging Systems	4
AUTO 065 Electrical Accessory Diagnostic	4
AUTO 066 ASE Alternative A-6, A-8, L-1 Prep Or Certificate	4
AUTO 067 Automotive Emissions	4
AUTO 068 Engine Performance-Ignition Systems	4
AUTO 069 Engine Performance-Fuel and Exhaust Systems	4
AUTO 084 General Automotive Technology	4
AUTO 090x3 Engine Repair	6
TECALC 950 Shop Calculations	3
Or	

MATH 942 Arithmetic	(3)
Or	
Higher-level math course	
<b>TOTAL UNITS:</b>	<b>37</b>

#### 6. WHEEL ALIGNMENT AND BRAKES CERTIFICATE

This certificate is designed to prepare students for entry-level work as an automotive technician working in the area of wheel alignment and brake repair. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

<b>REQUIRED COURSES:</b>	<b>UNITS</b>
AUTO 050 Automotive Brakes	4
AUTO 051 Advanced Automotive Brakes	4
AUTO 052 Automotive Suspension and Steering	4
AUTO 053 Advanced Automotive Suspension and Steering	4
AUTO 064 Automotive Electrical: Battery, Starting & Charging Systems	4
AUTO 084 General Automotive Technology	4
TECALC 950 Shop Calculations	3
Or	
MATH 942 Arithmetic	(3)
Or	
Higher-level math course	
<b>TOTAL UNITS:</b>	<b>27</b>

#### COURSES OFFERED BY THE DEPARTMENT OF AUTOMOTIVE TECHNOLOGY:

##### AUTO 038x3 BASIC AUTO BODY 9 UNITS

**PREREQUISITE: None.**

**LECTURE: 4 hours per week and  
LABORATORY: 15 hours per week.**

Theory and practical experience in auto collision damage repair and shop safety, with a focus on automotive construction, hand and power tools, laws and regulations, oxy-acetylene welding and brazing. This course may be taken three times.

*Associate Degree Applicable*

##### AUTO 039x3 SECONDARY AUTO BODY 9 UNITS

**PREREQUISITE: AUTO 038x3.**

**LECTURE: 4 hours per week and  
LABORATORY: 15 hours per week.**

Theory and practical experience in auto collision repair and shop safety, with a focus on MIG welding, (minor damage repair), painting equipment and refinishing materials, E.P.A. and S.C.A.Q.M.D. requirements. This course may be taken three times.

*Associate Degree Applicable*

**AUTO 044x3**  
**AUTOMOTIVE BODY REPAIRING AND REFINISHING** 4 UNITS

**PREREQUISITE:** None.  
**LECTURE:** 2 hours per week and  
**LABORATORY:** 4 hours per week.

Theory and practical experience in auto collision damage repair and shop safety, with a focus on automotive construction; hand and power tools; laws and regulations, surface preparation, masking, basic spray painting on complete vehicles, and detailing with an introduction to oxyacetylene welding and brazing. This course may be taken three times.

*Associate Degree Applicable*

**AUTO 048x3**  
**INTERMEDIATE AUTO BODY** 9 UNITS

**PREREQUISITE:** AUTO 039x3.  
**LECTURE:** 4 hours per week and  
**LABORATORY:** 15 hours per week.

Theory and practical experience in minor uni-body frame repair and small parts replacement and single stage refinishing. This course may be taken three times.

*Associate Degree Applicable*

**AUTO 049**  
**SHOP MANAGEMENT AND ESTIMATING** 4 UNITS

**PREREQUISITE:** AUTO 038x3 or equivalent experience.  
**LECTURE:** 2 hours per week and  
**LABORATORY:** 6 hours per week.

Theory and practical experience in shop management, estimating, inventory control and sales techniques.

*Associate Degree Applicable*

**AUTO 050**  
**AUTOMOTIVE BRAKES** 4 UNITS

**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.

This course is based upon NATEF standards and designed for students and current technicians to gain knowledge and skills in automotive brakes (standard and anti-lock) systems. Included but not limited to disc, drum, hydraulics, power boosters, and traction control. Emphasis on diagnosing, trouble-shooting, repairing, replacing, and adjusting. This course may be used in preparation for the Automotive Service Excellence (ASE) National Test (A-5). Theory and practical work in the repair of brake system. Shop instruction to include safety, machinery, procedures for trouble-shooting and reconditioning of brake systems.

*Associate Degree Applicable*

**AUTO 051**  
**ADVANCED AUTOMOTIVE BRAKES** 4 UNITS

**PREREQUISITE:** AUTO 050.  
**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.

This course is based on NATEF standards and is designed for students and current technicians to gain advanced knowledge and skills in automotive brakes. Advanced study of disc, drum, hydraulics, and power boosters systems. Emphasis on antilock brakes, traction control, and machining. Advanced theory and practical work in the repair of brake system. Shop instruction to include safety, reconditioning, machinery, procedures for trouble-shooting and recondition brake systems.

*Associate Degree Applicable*

**AUTO 052**  
**AUTOMOTIVE SUSPENSION AND STEERING** 4 UNITS

**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.

This course is based upon NATEF standards and designed for students and current technicians to gain knowledge and skills in automotive chassis and suspension systems. Included but not limited to suspension types, basic geometry, alignment angles, two-wheel alignment and four-wheel alignment using both computerized and mechanical methods. Emphasis on diagnosing, trouble-shooting, repairing, replacing, and adjusting. This course may be used in preparation for the Automotive Service Excellence (ASE) National Test (A-4).

*Associate Degree Applicable*

**AUTO 053**  
**ADVANCED AUTOMOTIVE SUSPENSION AND STEERING** 4 UNITS

**PREREQUISITE:** AUTO 052.  
**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.

This course is designed for students and current technicians to gain advanced knowledge and skills in automotive chassis and suspension systems. Included but not limited to suspension design, advanced geometry, alignment angles, four-wheel alignment using computerized methods. Emphasis on diagnosing, trouble-shooting, repairing, replacing, and adjusting. Advanced theory and practical work in the repair of chassis and suspension systems. Shop instruction to include safety, rebuilding, replacing, and alignment procedures for trouble-shooting of suspension systems.

*Associate Degree Applicable*

**AUTO 055**  
**ADVANCED AUTO BODY** 5 UNITS

**PREREQUISITE:** AUTO 039x3.  
**LECTURE:** 1 hour per week and  
**LABORATORY:** 12 hours per week.

Theory and practical experience in plastic welding, SMC (sheet molded compounds), fiberglass and lead applications, urethane bumper repair and refinishing, headlight adjustment, spot repairing/ blending, polishing and detailing, pre-delivery servicing, fine-line masking and pin striping. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

*Associate Degree Applicable*

**AUTO 056**  
**AUTOMOTIVE HEATING AND AIR CONDITIONING** 4 UNITS

**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.

Principles of automotive air conditioning and heating systems. Detail topics include repairing and replacing all components, diagnosis of both manual and automatic heater and air conditioning systems.

*Associate Degree Applicable*

**AUTO 064**  
**AUTOMOTIVE ELECTRICAL: BATTERY, STARTING & CHARGING SYSTEMS** 4 UNITS

**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.

Principles of automotive electricity and electronics systems covering batteries, charging, and starting systems. Detail topics include the use of a digital multi-meter for the analysis of series, parallel, and series-parallel circuits. This course along with AUTO 065 will prepare students for ASE A-6 certification test.  
*Associate Degree Applicable*

**AUTO 065**  
**ELECTRICAL ACCESSORY DIAGNOSTIC** 4 UNITS  
**PREREQUISITE:** None.

**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.

Principles of automotive electricity and electronics systems covering the use of a digital multi-meter, lighting, gauges, accessories, electronics, automotive body computers and solid-state devices, and communication systems. This course along with AUTO 064 will prepare students for ASE A-6 certification test.  
*Associate Degree Applicable*

**AUTO 066**  
**ASE ALTERNATIVE A-6, A-8, L-1 PREP OR CERTIFICATE** 4 UNITS  
**PREREQUISITE:** None.

**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.

Course provides students with the opportunity to either use this course as a prep course or an alternative for taking ASE A-6 Electrical, ASE A-8 Engine Performance, ASE L-1 Advanced Engine Performance tests. Student wishing to secure alternative ASE certificate will be asked to pay for each test taken. Test certificate will be the same as securing an ASE certificate. **STUDENTS ENTERING THE COURSE MUST HAVE ONE-YEAR EXPERIENCE/EDUCATION IN THE AUTOMOTIVE ENGINE PERFORMANCE AREA.**  
*Associate Degree Applicable*

**AUTO 067**  
**AUTOMOTIVE EMISSIONS** 4 UNITS  
**PREREQUISITE:** None.

**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.

All technicians wishing to become state licensed smog inspection technician must take the Basic Area Clean Air Car Course (68 Hours) and Enhanced Clean Air Car Course (28 Hours). **STUDENT ENTERING THE COURSE MUST HAVE ONE-YEAR EXPERIENCE / EDUCATION IN THE AUTOMOTIVE ENGINE PERFORMANCE AREA.**  
*Associate Degree Applicable*

**AUTO 068**  
**ENGINE PERFORMANCE – IGNITION SYSTEMS** 4 UNITS  
**PREREQUISITE:** None.

**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.

Principles of automotive engine performance covering general engine diagnosis, ignition system diagnosis and repair, and ignition related computerized engine controls. This course along with AUTO 069 will prepare students for ASE A-8 certification test.  
*Associate Degree Applicable*

**AUTO 069**  
**ENGINE PERFORMANCE – FUEL AND EXHAUST SYSTEMS** 4 UNITS  
**PREREQUISITE:** None.

**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.

Introduction to emission controls diagnosis and repair, fuel and emission related computerized engine controls, and fuel and exhaust systems. This course along with AUTO 068 will prepare students for ASE A-8 certification test.  
*Associate Degree Applicable*

**AUTO 075x3**  
**AUTOMATIC TRANSMISSION REAR WHEEL DRIVE** 2-6 UNITS  
**PREREQUISITE:** None.

**LECTURE:** 1-3 hours per week and  
**LABORATORY:** 3-9 hours per week.

Theory and practical work on rear wheel drive automatic transmissions in automobile and light truck applications. Course offers preparation information for the Automotive Service Excellence (ASE) A2 certification test. This course may be taken three times.  
*Associate Degree Applicable*

**AUTO 076x3**  
**AUTOMATIC TRANSAXLES FRONT WHEEL DRIVE** 2-6 UNITS  
**PREREQUISITE:** None.

**LECTURE:** 1-3 hours per week and  
**LABORATORY:** 3-9 hours per week.

Theory and practical work on front-wheel drive automatic transaxles in automobile applications. Course offers preparation information for the Automotive Service Excellence (ASE) A2 certification test. This course may be taken three times.  
*Associate Degree Applicable*

**AUTO 077**  
**MANUAL TRANSMISSIONS AND TRANSAXLES** 4 UNITS  
**PREREQUISITE:** None.

**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.

Theory and practical work on front wheel drive manual transaxles and rear wheel drive manual transmissions in automobile and light truck applications including transfer cases, axle assemblies, and clutches.  
*Associate Degree Applicable*

**AUTO 084**  
**GENERAL AUTOMOTIVE TECHNOLOGY** 4 UNITS  
**PREREQUISITE:** None.

**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.

General theory, principles and service procedures relating to an introduction to automotive maintenance with emphasis on component identification, basic functions, minor maintenance and service.  
*Associate Degree Applicable*

**AUTO 088x3**  
**AIR-COOLED AND SMALL ENGINES** 4 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.  
 Practical experience in the repair and maintenance of small air-cooled and outboard engines, including engine overhaul, testing and troubleshooting. These courses may be taken three times each. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.  
 Associate Degree Applicable

**AUTO 089x3**  
**AIR-COOLED AND SMALL ENGINES** 4 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.  
 Practical experience in the repair and maintenance of small air-cooled and outboard engines, including engine overhaul, testing and troubleshooting. These courses may be taken three times each. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.  
 Associate Degree Applicable

**AUTO 090x3**  
**ENGINE REPAIR** 6 UNITS  
**PREREQUISITE:** None.  
**DEPARTMENTAL ADVISORY:** AUTO 091.  
**LECTURE:** 3 hours per week  
**LABORATORY:** 9 hours per week.  
 This course is based on NATEF standards and designed for students and current technicians to gain knowledge and skills in automotive engine repair. Instruction in removal, disassembly, inspection, reconditioning and reassembling of engines; rebuilding of components using automotive machine shop equipment; study progressing to the operation of automotive machine shop equipment; theory and instruction of gasoline, diesel and rotary engines; theory and practical work in the repair and rebuilding of automotive gasoline, diesel, and rotary engines. Shop instruction to include safety, engine reconditioning, auto shop machinery, and failure analysis of components. This course may be used in preparation for the Automotive Service Excellence (ASE) National Test A-1. This course may be taken three times.  
 Associate Degree Applicable

**AUTO 198**  
**AUTOMOTIVE-DIESEL TECHNOLOGY**  
**WORK EXPERIENCE** 1-4 UNITS  
**PREREQUISITE:** None.  
 Supervised training in the form of on the job employment that will enhance the student's educational goals. The student's major and job must match. Students work 5-20 hours per week to earn units using the following formula: For paid work, 75 hours = 1 unit; for volunteer work, 60 hours = 1 unit. Students may earn a total of 16 units toward graduation in Work Experience 198 courses. Students MUST be working for pay or volunteer before registering for a Work Experience class. NOTE: Only one section of Work Experience may be taken during a semester.  
 Associate Degree Applicable  
 Course credit transfers to CSU for elective credit only.

**AUTOIN 010**  
**BASIC CUSTOM AUTO INTERIORS** 4 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.  
 Basic information and practical experience in design, creation and installation of complete custom and hot rod automotive interiors. Includes instruction in safe work practices, using trimmers, hand and power tools and common covering materials. Cut, sew and fit techniques are stressed.  
 Associate Degree Applicable

**AUTOIN 011x3**  
**BASIC CUSTOM AUTO INTERIORS LABORATORY** 1 UNIT  
**PREREQUISITE:** AUTOIN 010.  
**LABORATORY:** 3 hours per week.  
 Basic practical experience in design, creation and installation of complete custom and hot rod automotive interiors. Includes instruction in safe work practices, using trimmers, hand and power tools and common covering materials. Cut, sew and fit techniques are stressed.  
 Associate Degree Applicable

**AUTOIN 012**  
**ADVANCED CUSTOM AUTO INTERIORS** 4 UNITS  
**PREREQUISITE:** AUTOIN 010.  
**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.  
 Information and practical experience in design, creation and installation of complex custom and hot rod automotive interiors. Instruction builds on prior basic skills in safe work practices, pattern making, using trimmers, working with hand and power tools and applying common covering materials.  
 Associate Degree Applicable

**AUTOIN 013x3**  
**ADVANCED CUSTOM AUTO INTERIORS**  
**LABORATORY** 1 UNIT  
**PREREQUISITE:** AUTOIN 012.  
**LABORATORY:** 3 hours per week.  
 Practical experience in design, creation and installation of complex custom and hot rod automotive interiors. Instruction builds on prior basic skills in safe work practices, pattern making, using trimmers, working with hand and power tools and applying common covering materials. Cut, sew and fit techniques on elaborate designs are stressed.  
 Associate Degree Applicable

**AUTORS 010**  
**BASIC VEHICLE RESTORATION** 4 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.  
 Theory and practical experience in restoring a vehicle to appropriate and safe running conditions which includes instruction in safe work practices, disassembly, cleaning, refinishing of vehicle parts. Design and construction of frame and chassis components will be covered. Body repair and welding will also be included.  
 Associate Degree Applicable

**AUTORS 011x3  
BASIC VEHICLE RESTORATION LABORATORY 1 UNIT**

**PREREQUISITE: AUTORS 010.  
LABORATORY: 3 hours per week.**

Practical experience in restoring a vehicle to appropriate and safe running condition. Includes instruction in safe work practices, disassembly, cleaning, refinishing of vehicle parts. Design and construction of frame and chassis components will be covered.

*Associate Degree Applicable*

**AUTOST 010  
BEGINNING STREET ROD CONSTRUCTION 4 UNITS**

**PREREQUISITE: None.  
DEPARTMENTAL ADVISORY: AUTO 084x4 or AUTORS 010.**

**LECTURE: 3 hours per week and  
LABORATORY: 3 hours per week.**

Theory and practical experience in building a street rod vehicle, includes instruction in safe work practices, design and construction of frame and chassis systems and components. Body repair, paint preparation, refinishing and welding are also included.

*Associate Degree Applicable*

**AUTOST 011x3  
STREET ROD CONSTRUCTION LABORATORY 1 UNIT**

**PREREQUISITE: AUTOST 010.  
LABORATORY: 3 hours per week.**

Practical experience in building a street rod vehicle. Includes instruction in safe work practices, design and construction of frame and chassis systems and components. Body repair, paint, preparation, refinishing and welding are also included.

*Associate Degree Applicable*

**AVIATION**

See courses within the AERONAUTICS DEPARTMENT

**BIOLOGY**

DIVISION: Science and Math  
 DIVISION DEAN: Haragewen Kinde, Ed.D.  
 DEPARTMENT HEAD: David Bastedo, M.S.  
 Health & Life Science 227  
 (909) 384-8564  
 OTHER FACULTY: Carol Cook, M.S.  
 Glenn Drewes, M.A.  
 Darlene Gamboa, Ph.D.  
 C.R. Greyraven, M.S.  
 Mark Ikeda, M.S.  
 Ken Michaelis, M.A.  
 John Olsen, M.S.  
 DIVISION SECRETARY: Rose Garcia  
 DIVISION OFFICE: Chemistry 121  
 (909) 384-8645  
 LIAISON COUNSELOR: Rachel Herrera, M.S.  
 (909) 384-4404

The courses offered in the Biology Department are designed to meet the demands of science and non-science majors. For non-majors, the department's goal is to educate students so they can make informed choices about key environmental and personal issues. Public awakening to environmental issues emphasizes the increasing need to appreciate various life forms, their interactions with each other, and the human impact on our

finite resources. This public is increasingly asked to make decisions on issues concerning the environment and to make choices about personal habits in their daily lives that effect the earth and future generations.

For majors, the courses provide a strong background in the biological sciences for students transferring to four-year institutions who are interested in careers such as teaching, biological research, or the health sciences. Students planning to transfer to a four-year institution and major in biology or a related field should consult with a counselor regarding the transfer process and lower division requirements.

Core competencies emphasized by courses in this department:

- Employ vocabulary of the subject studied.
- Find and interpret information.
- Apply learned knowledge to new situations.
- Apply principles of scientific reasoning to solve problems.

**ASSOCIATE OF SCIENCE DEGREE**

An Associate of Science degree with a specialization in the Biological Sciences can be earned by completing the following required courses in addition to fulfilling the breadth requirements for the associate degree (minimum 60 semester units).

REQUIRED COURSES:	UNITS
BIOL 201 Cell and Molecular Biology	4
CHEM 212 Organic Chemistry	4
<b>Twelve units from the list of RECOMMENDED COURSES</b>	<b>12</b>
<b>TOTAL UNITS:</b>	<b>20</b>

RECOMMENDED COURSES:	UNITS
BIOL 104 Human Ecology	3
BIOL 202 Organismal Biology and Ecology	4
BIOL 240 General Botany	4
BIOL 250 Human Anatomy and Physiology I	4
BIOL 251 Human Anatomy and Physiology II	4
BIOL 260 Human Anatomy	4
BIOL 261 Human Physiology	4
BIOL 270 General Microbiology	5

**COURSES OFFERED BY THE DEPARTMENT OF BIOLOGY:**

**BIOL 050  
ANATOMY AND PHYSIOLOGY 4 UNITS**

**PREREQUISITE: None.  
LECTURE: 4 hours per week.**  
 Introduction to the elementary principles of human anatomy and physiology. The course is specifically designed for non-majors and students entering the Psychiatric Technology Certificate Program.  
*Associate Degree Applicable*

**BIOL 100**  
**GENERAL BIOLOGY** 4 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.  
Introductory course for non-majors emphasizing basic biological concepts and scientific processes. Topics include origins and comparative characteristics of living organisms, reproduction, metabolism, evolution, and ecological interactions.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*  
*Limited transfer to UC; contact a counselor for details.*

**BIOL 102**  
**HUMAN BIOLOGY** 4 UNITS  
**PREREQUISITE:** None  
**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.  
An introduction to biological principles for students interested in allied health careers, emphasizing science as a process and the molecular and cellular basis for the functions of the human body. Topics include the structure and function of important biological molecules, cell anatomy and physiology, human tissue types, cellular energy pathways, genome replication and expression, and reproductive and developmental processes.  
*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

**BIOL 104**  
**HUMAN ECOLOGY** 3 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week.  
Discussion of the ecological consequences of human resource use and population growth. Emphasis is on earth's life support systems and current environmental problems threatening human health and species survival.  
*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

**BIOL 108**  
**EVOLUTION: MOLECULES TO MAMMALS** 3 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week.  
An investigation of the origins and development of life on earth including major lines of evidence for evolution (biogeography, paleontology, and comparative anatomy and physiology); sources of genetic variation; and mechanisms of natural selection and adaptation.  
*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

**BIOL 109** 4 UNITS  
**HISTORY OF LIFE**  
**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.  
An introductory course exploring the history of life on Earth. The role of natural selection and evidence from geology, biogeography, and paleontology will be combined with fossils and recent organisms to interpret the clues of life's history on Earth.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**BIOL 123** 3 UNITS  
**ECOLOGY AND ENVIRONMENT**  
**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week.  
Study of the basic concepts of ecology including the physical environment, ecosystems, energy production and transfer, and the impact of humans on ecosystems. Environmental considerations include renewable and non-renewable energy, food resources, pest control, waste management, maintenance of air and water quality, sustaining the biodiversity of ecosystems, global climate, and political and economic considerations.  
*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

**BIOL 140** 2 UNITS  
**BIOLOGY OF SEXUALLY TRANSMITTED DISEASES**  
**PREREQUISITE:** None.  
**LECTURE:** 2 hours per week.  
Social, economic, psychological, medical and legal issues surrounding the sexually transmitted diseases. The pathogenesis, diagnosis and treatment of prominent sexually transmitted diseases including the impact of current biotechnology on vaccine development, treatment and diagnostics. Historical coverage of changing attitudes and measures toward control of the sexually transmitted diseases.  
*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

**BIOL 201** 4 UNITS  
**CELL AND MOLECULAR BIOLOGY**  
**PREREQUISITE/COREQUISITE:** CHEM 150 or CHEM 150H.  
**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.  
A one-semester introduction to cellular and molecular aspects of biology. Experimental design concepts and application are included in the laboratory section. This course is designed primarily for the pre-professional and biology major as well as for other students interested in an in-depth study of biology.  
*Associate Degree Applicable*  
*Course credit transfers to CSU, and UC.*  
*CAN (California Articulation Number): BIOL 2*

**BIOL 202** 4 UNITS  
**ORGANISMAL BIOLOGY AND ECOLOGY**  
**PREREQUISITE:** BIOL 201.  
**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.  
A one-semester introduction to the ecological and organismal aspects of biology. This course is designed primarily for the pre-professional and biology major as well as for other students interested in an in-depth study of biology. This course requires participation in and completion of a field project.  
*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*



**BIOL 203**  
**INVERTEBRATE BIOLOGY** 4 UNITS  
**PREREQUISITE:** BIOL 201.  
**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.

An introduction to the biology of invertebrate organisms emphasizing comparative anatomy, systematics, ecology, and evolutionary relationships among the major invertebrate phyla. This course is designed primarily for pre-professional and biology majors or others with an interest in an in-depth study of biology. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

**BIOL 220**  
**LABORATORY PREPARATION IN BIOLOGY** 1 UNIT  
**PREREQUISITE:** BIOL 100 or BIOL 201.  
**LABORATORY:** 3 hours per week.

Practical laboratory techniques designed to acquaint students with methods of collection and preparation of common materials used in the biology laboratory. Students are required to devote three hours per week to the laboratory throughout the semester. Prior to registration, a contract must be prepared. See instructor for details.

*Associate Degree Applicable*

*Course credit transfers to CSU for elective credit only.*

**BIOL 221**  
**LABORATORY PREPARATION IN BIOLOGY** 2 UNITS  
**PREREQUISITE:** BIOL 100 or BIOL 201.  
**LABORATORY:** 6 hours per week.

Practical laboratory techniques designed to acquaint students with methods of collection and preparation of common materials used in the biology laboratory. Students are required to devote six hours per week to the laboratory throughout the semester. Prior to registration, a contract must be prepared. See instructor for details.

*Associate Degree Applicable*

*Course credit transfers to CSU for elective credit only.*

**BIOL 222**  
**INDEPENDENT STUDY IN BIOLOGY** 1-3 UNITS  
**PREREQUISITE:** None.  
**INDEPENDENT STUDY:** 3-9 hours per week.

Assigned problems involving research, laboratory work, or directed study for selected students who are interested in furthering their knowledge of biology on an independent study basis. For each unit earned, students are required to devote three hours per week throughout the semester. Enrollment limited to those who meet independent study criteria. Prior to registration, a contract must be prepared. See instructor for details.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

*Limited transfer to UC; credit determined after transfer to UC.*

**BIOL 240**  
**GENERAL BOTANY** 4 UNITS  
**PREREQUISITE:** BIOL 100 or BIOL 201.  
**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.

A survey of plant biology with an emphasis on the structure, function and development of vascular plants, plant classifications, evolution, and general ecology. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

*CAN (California Articulation Number): BIOL 6*

**BIOL 250**  
**HUMAN ANATOMY AND PHYSIOLOGY I** 4 UNITS  
**PREREQUISITE:** None.  
**DEPARTMENTAL ADVISORY:** A high-school course in chemistry.

**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.

BIOL 250 is the first semester of a two-semester presentation of anatomy and physiology. Introductory topics include cytology, histology, and basic and organic chemistry. Includes the structure, function, and homeostatic interrelationships of the following organ systems: integumentary, skeletal, cardio-vascular, lymphatic, immune, and respiratory.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

*Limited transfer to UC; contact a counselor for details.*

**BIOL 251**  
**HUMAN ANATOMY AND PHYSIOLOGY II** 4 UNITS  
**PREREQUISITE:** BIOL 250.  
**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.

BIOL 251 is the second semester of a two-semester presentation of anatomy and physiology. Topics include the urinary system, nerve and muscle physiology, muscular system, nervous system, endocrine regulation, digestion, metabolism and reproduction. Emphasis is on body homeostasis, human musculature, and gross anatomy, using the cat as a dissection model.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

*Limited transfer to UC; contact a counselor for details.*

**BIOL 255**  
**INDEPENDENT STUDY IN ANATOMY AND PHYSIOLOGY** 1-3 UNITS  
**PREREQUISITE:** BIOL 250 or BIOL 260.  
**INDEPENDENT STUDY:** 3-9 hours per week.

Assigned projects involving research, laboratory work, or directed study for selected students who are interested in furthering their knowledge of anatomy and physiology on an independent study basis. For each unit earned, students are required to devote three hours per week throughout the semester. Enrollment limited to those who meet independent study criteria. Prior to registration, a contract must be prepared. See instructor for details.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

*Limited transfer to UC; credit determined after transfer to UC.*

**BIOL 256**  
**LABORATORY PREPARATION IN ANATOMY AND**  
**PHYSIOLOGY** **2 UNITS**

**PREREQUISITE:** BIOL 250 or BIOL 260.

**LABORATORY:** 6 hours per week.

Practical laboratory techniques designed to acquaint students with the methods of preserving and preparing anatomic materials used in the anatomy laboratory. Students are required to devote six hours per week to the laboratory throughout the semester. Prior to registration, a contract must be prepared. See instructor for details.

*Associate Degree Applicable*

*Course credit transfers to CSU for elective credit only.*

**BIOL 260**  
**HUMAN ANATOMY** **4 UNITS**

**PREREQUISITE:** None.

**LECTURE:** 3 hours per week and

**LABORATORY:** 3 hours per week.

This is a comprehensive laboratory course in human anatomy. It is organized to explore the body regionally and systemically. It is primarily oriented toward gross anatomy with extensive dissection of the cat. Histological and cellular anatomy are included as they apply to various structures.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

*Limited transfer to UC; contact a counselor for details.*

*CAN (California Articulation Number): BIOL 10*

**BIOL 261**  
**HUMAN PHYSIOLOGY** **4 UNITS**

**PREREQUISITES:** BIOL 260 and CHEM 101.

**LECTURE:** 3 hours per week and

**LABORATORY:** 3 hours per week.

Introductory study of the vital processes and functions of the human body. Emphasis is on control mechanisms, maintenance of homeostasis and selected examples of pathophysiology of the major organ systems. Includes a laboratory which involves observations, physiological recordings, and analysis of body functions.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

*Limited transfer to UC; contact a counselor for details.*

*CAN (California Articulation Number): BIOL 12*

**BIOL 270**  
**MICROBIOLOGY** **5 UNITS**

**PREREQUISITES:** BIOL 250 or BIOL 260 or BIOL 261 or BIOL 201 or BIOL 102; and CHEM 101.

**DEPARTMENTAL ADVISORY:** Reading skills at the 12th grade level and ENGL 101 entry-level writing skills.

**LECTURE:** 3 hours per week and

**LABORATORY:** 6 hours per week.

A formal introduction to the fundamental principles of microbiology. Attention is given to the morphology, control, metabolism and genetics of microorganisms. Emphasis is placed on the pathogenesis immunity to infectious diseases.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

*CAN (California Articulation Number): BIOL 14*

**BIOL 275**  
**INDEPENDENT STUDY IN MICROBIOLOGY** **1-3 UNITS**  
**PREREQUISITE:** BIOL 270.

**INDEPENDENT STUDY:** 3-9 hours per week.

Assigned problems involving research, laboratory work, or directed study for selected students who are interested in furthering their knowledge of microbiology on an independent study basis. For each unit earned, students are required to devote three hours per week throughout the semester. Enrollment limited to those who meet independent study criteria. Prior to registration, a contract must be prepared. See instructor for details.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

*Limited transfer to UC; credit determined after transfer to UC.*

**BIOL 276**  
**LABORATORY PREPARATION IN MICROBIOLOGY**  
**2 UNITS**

**PREREQUISITE:** BIOL 270.

**LABORATORY:** 6 hours per week.

Practical laboratory techniques designed to acquaint students with the methods of preserving and preparing materials used in the microbiology laboratory. Students are required to devote six hours per week to the laboratory throughout the semester. Prior to registration, a contract must be prepared. See instructor for details.

*Associate Degree Applicable*

*Course credit transfers to CSU for elective credit only.*

**BOTANY**

See courses within the Department of BIOLOGY

**BUILDING INSPECTION**  
**TECHNOLOGY**

See the Department of  
INSPECTION TECHNOLOGY

**BUSINESS ADMINISTRATION**

DIVISION:	Business & Information Technology
DIVISION DEAN:	Margaret Ortiz, M.A.
DEPARTMENT HEAD:	Roger Powell, M.S. Business, 200E (909) 384-8910
OTHER FACULTY:	Michael Assumma, M.B.A. Donald Schall, J.D. Vernon Stauble, Ph.D.
DIVISION SECRETARY:	Chris Williams
DIVISION OFFICE:	Business 101 (909) 384-8908
LIAISON COUNSELOR:	Marco Cota, M.A. (909) 384-4404

The Business Administration Department offers courses in the fundamentals of business organization and management as well as in marketing and business law.

For non-business majors, these courses offer a general view of the world of business and finance. For business majors, these courses provide a solid foundation in preparation for transfer to a four-year institution. Students planning to transfer to a four-year institution and major in business administration or a related field should consult with a counselor regarding the transfer process and lower division requirements.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Write clearly.
- Speak clearly.
- Employ vocabulary of the subject studied.
- Demonstrate active listening skills.
- Find and interpret information.
- Evaluate authority and bias of information.
- Evaluate strengths, weaknesses and fallacies of logic.
- Apply learned knowledge to new situations.
- Accept responsibility for own actions.
- Exhibit personal, professional and academic honesty.
- Apply lessons from the past to ethical issues faced in the present.
- Give and receive constructive feedback.
- Develop time management skills.
- Demonstrate creative thought through original expression.
- Demonstrate etiquette in face-to-face and written interactions.
- Work effectively in group settings.
- Utilize conflict resolution skills.
- Demonstrate knowledge of and respect for other cultures.

### BUSINESS ADMINISTRATION ASSOCIATE OF ARTS DEGREE

To graduate with a specialization in Business Administration, students must complete the following required courses plus the general breadth requirements for the Associate Degree (total = 60 units).

REQUIRED COURSES:	UNITS
ACCT 200 Principles of Accounting I	4
ACCT 201 Principles of Accounting II	4
BUSAD 103 Marketing Principles	3
BUSAD 210 Business Law	3
ECON 200 Introduction to Macroeconomics	3
ECON 201 Principles of Economics (Micro)	3
CIT 101 Introduction to Computer Literacy	3
<b>TOTAL UNITS:</b>	<b>23</b>

### BUSINESS ADMINISTRATION CERTIFICATE

This certificate is designed to prepare students for entry-level work in the business field by providing the fundamentals of business organization and management as well as in marketing and business law. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

REQUIRED COURSES:	UNITS
BUSAD 100 Introduction to Business	3
BUSAD 103 Marketing Principles	3
BUSCAL 050 Quantitative Methods in Business	3
CIT 101 Introduction to Computer Literacy	3
ACCT 100 Introduction to Accounting I	4
or	

BUSAD 108 Personal Finance	(3)
or	
ECON 100 Introduction to Economics	(3)
CIT 031 Business English	3
or	
ENGL 015 Preparation for College Writing	(4)
or	
ENGL 101 Freshman Composition	(4)
SPEECH 100 Elements of Public Speaking	3
<b>ELECTIVES - Choose from the list of RECOMMENDED COURSES:</b>	<b>6</b>
<b>TOTAL UNITS:</b>	<b>28</b>

RECOMMENDED COURSES:	UNITS
BUSAD 105 Small Business Management	3
BUSAD 106 Principles of Selling	3
BUSAD 110 Human Resources Management	3
BUSAD 121 International Business	3
BUSAD 153 Introduction to Supervision	3
BUSAD 198 Business Administration Work Exp	3
BUSAD 200 Business Management	3
BUSAD 203 Marketing Management	3
<i>*Pending approval from the California Community College Chancellor's Office</i>	

### RETAIL MANAGEMENT CERTIFICATE

This certificate is designed to prepare students for entry-level work in the retail management field. Beginning as a clerk or cashier, the student can advance to assistant manager, manager, and upper management. There is no required sequence of courses, but it is recommended that students structure their schedule to move through three general levels of training and experiences. In the foundational courses the students gain exposure to foundational courses in writing, speaking, math applications, and computer literacy. The second component of course offering covers specific business and management content. Lastly, the advanced topics include the retail specific courses and human relations topics. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

FOUNDATIONAL COURSES:	UNITS
BUSAD 207 Business Communication	3
BUSCAL 050 Quantitative Methods in Business	3
CIT 101 Introduction to Computer Literacy	3
<b>Choose one of the following:</b>	
SPEECH 100 Elements of Public Speaking	3
SPEECH 111 Interpersonal Communication	(3)
SPEECH 140 Small Group Discussion	(3)

### INTERMEDIATE COURSES:

BUSAD 103 Marketing Principles	3
BUSAD 200 Business Management	3
<b>Choose one of the following:</b>	
ACCT 010 Bookkeeping	3
ACCT 100 Introduction to Accounting I	(4)
ACCT 200 Principles of Accounting	(4)

### ADVANCED COURSES:

BUSAD 110 Human Resource Management	3
BUSAD 112 Principles of Retailing	3
BUSAD 151 Human Relations	3
<b>TOTAL UNITS:</b>	<b>30-31</b>

### COURSES OFFERED BY THE DEPARTMENT OF BUSINESS ADMINISTRATION:

**BUSAD 039**  
**STRATEGIES FOR SUCCESSFUL EMPLOYMENT** 3 UNITS

**PREREQUISITE:** None.  
**DEPARTMENTAL ADVISORIES:** CIT 010 and CIT 009.  
**LECTURE:** 3 hours per week.

This course is designed to help students develop the skills needed to successfully seek employment, including job search strategies, career paths, cover letter and resume writing, mock interviews, job applications, and positive workplace attitudes.

*Associate Degree Applicable*

**BUSAD 080-099**  
**SPECIAL SEMINARS IN BUSINESS** .25-3 UNITS  
**PREREQUISITE:** None.

**LECTURE:** 4 hours per semester per .25 unit.

Seminars on selected topics in the field of business developed to address current issues. Seminars vary from .25 to 3.0 units and will be offered as requests are made in the business community.

*Associate Degree Applicable*

**BUSAD 100**  
**INTRODUCTION TO BUSINESS** 3 UNITS

**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week.

Introduction to the fundamental concepts of business in a changing world. Includes an overview of such areas as economic systems, management, marketing, accounting, finance, ethics, ownership, organization of business, the legal aspects and regulation of business, as well as globalization.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

**BUSAD 103**  
**MARKETING PRINCIPLES** 3 UNITS

**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week.

Principles and methods of marketing as practiced by all successfully managed business firms. Course is management-oriented, covering demand analysis, forecasting, product development, price determination, distribution channels, material handling, advertising and personal selling.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**BUSAD 105**  
**SMALL BUSINESS MANAGEMENT** 3 UNITS

**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week.

For business majors and non-business majors who desire a greater knowledge of the fundamentals specifically related to the opening and operating of a small business firm. Designed to provide a working knowledge of the pitfalls associated with small business operations and how to recognize and solve these problems before they happen.

*Associate Degree Applicable*

*Course credit transfers to CSU for elective credit only.*

**BUSAD 106**  
**PRINCIPLES OF SELLING** 3 UNITS

**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week.

Problems of analyzing the sales talk, making an adequate approach, meeting objections and excuses and techniques of closing the sale, and the psychology involved in selling services, goods, ideas, and one's own personality.

*Associate Degree Applicable*

*Course credit transfers to CSU for elective credit only.*

**BUSAD 108**  
**PERSONAL FINANCE AND INVESTMENTS** 3 UNITS

**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week.

Preparation for managing personal finances including budgeting, borrowing, insurance, investments and home ownership.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**BUSAD 109**  
**ADVERTISING** 3 UNITS

**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week.

Principles, purposes and practices of advertising, analysis of the channels of trade, the importance of the correct appeal, style, trademarks, headlines, typography, color, layout, ethics and other problems involved in effective advertising. No artistic abilities required.

*Associate Degree Applicable*

*Course credit transfers to CSU for elective credit only.*

**BUSAD 110**  
**HUMAN RESOURCE MANAGEMENT** 3 UNITS

**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week.

A survey of the objectives, functions and practices in the management of employee relations, and the impact of employee relations on the effective achievement of the organization's goals.

*Associate Degree Applicable*

*Course credit transfers to CSU for elective credit only.*

**BUSAD 112**  
**PRINCIPLES OF RETAILING** 3 UNITS

**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week.

The role of retailing in serving the needs of the community with analysis of consumer needs, store locations, financial requirements and legal processes of starting a retail operation. Planning for store layout, merchandise mix, vendor negotiation, pricing, displaying, advertising, selling and controlling of merchandise.

*Associate Degree Applicable*

*Course credit transfers to CSU for elective credit only.*

**BUSAD 121**  
**INTERNATIONAL BUSINESS** 3 UNITS  
**PREREQUISITE:** None.  
**DEPARTMENTAL ADVISORY:** BUSAD 100.  
**LECTURE:** 3 hours per week.  
An analysis of international trade and economic development in modern times, with an examination of business practices and emerging trends in overseas markets. Case studies illustrate methods and strategies for international operations.  
*Associate Degree Applicable*  
*Course credit transfers to CSU for elective credit only.*

**BUSAD 151**  
**HUMAN RELATIONS** 3 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week.  
This course provides a basic understanding of human interactions in the workplace, focusing on the roles of the individual, the group, and the organization as a whole.  
*Associate Degree Applicable*  
*Course credit transfers to CSU for elective credit only.*

**BUSAD 153**  
**INTRODUCTION TO SUPERVISION** 3 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week.  
This survey course introduces the major responsibilities of supervisory personnel with an emphasis on the importance of understanding employees' needs and motivations.  
*Associate Degree Applicable*  
*Course credit transfers to CSU for elective credit only.*

**BUSAD 198**  
**BUSINESS ADMINISTRATION WORK EXPERIENCE** 1-4 UNITS  
**PREREQUISITE:** None.  
Supervised training in the form of on the job employment that will enhance the student's educational goals. The student's major and job must match. Students work 5-20 hours per week to earn units using the following formula: For paid work, 75 hours = 1 unit; for volunteer work, 60 hours = 1 unit. Students may earn a total of 16 units toward graduation in Work Experience 198 courses. Students MUST be working for pay or volunteer before registering for a Work Experience class. NOTE: Only one section of Work Experience may be taken during a semester.  
*Associate Degree Applicable*  
*Course credit transfers to CSU for elective credit only.*

**BUSAD 200**  
**BUSINESS MANAGEMENT** 3 UNITS  
**PREREQUISITE:** BUSAD 100.  
**LECTURE:** 3 hours per week.  
Designed for business majors, this course examines the primary dimensions of the management process including planning, organizing, decision-making and controlling organizational activity.  
*Associate Degree Applicable*  
*Course credit transfers to CSU for elective credit only.*

**BUSAD 203**  
**MARKETING MANAGEMENT** 3 UNITS  
**PREREQUISITE:** BUSAD 103.  
**LECTURE:** 3 hours per week.  
Actual marketing management practices are carefully reviewed and evaluated. Alternative principles and methods of effective marketing management are closely examined. Marketing management decision-making skills are developed via management simulation exercises.  
*Associate Degree Applicable*  
*Course credit transfers to CSU for elective credit only.*

**BUSAD 207**  
**BUSINESS COMMUNICATION** 3 UNITS  
**PREREQUISITE:** None.  
**DEPARTMENTAL ADVISORY:** CIT 031.  
**LECTURE:** 3 hours per week.  
Studies the principles and role of business communication and the need for communication skills in a global marketplace. Emphasizes written communications such as standard and persuasive business letters, memorandums, and informational as well as analytical reports. Studies effective proposals, resumes, and other employment-related documents. Develops planning, organizing, and outlining skills, as well as editing proficiency. Evaluates grammar skills and improves writing style.  
*Associate Degree Applicable*  
*Course credit transfers to CSU for elective credit only.*

**BUSAD 210**  
**BUSINESS LAW** 3 UNITS  
**PREREQUISITE:** None.  
**DEPARTMENTAL ADVISORY:** Pass a standardized test of reading comprehension at or above the twelfth grade level; Eligibility for ENGL 101.  
**LECTURE:** 3 hours per week.  
Exploration of the legal environment, in which, business operates. Includes an introduction to law and legal reasoning, ethics, torts, strict and products liability, criminal law and contracts. Special emphasis is placed on acquiring a working knowledge of the rules for contracting in general and the modifications applicable under the Uniform Commercial Code for the sale of goods.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*  
*Limited transfer to UC; contact a counselor for details.*  
*CAN (California Articulation Number): BUS 8*

**BUSAD 211**  
**THE LEGAL ENVIRONMENT OF BUSINESS** 3 UNITS  
**PREREQUISITE:** None.  
**DEPARTMENTAL ADVISORY:** Pass a standardized test of reading comprehension at or above the twelfth grade level;  
*Eligibility for ENGL 101.*  
**LECTURE:** 3 hours per week.  
A broad investigation of the legal environment in which business is required to operate in today's world. Includes an investigation of the different governmental entities and their jurisdictions, including the forums provided by each for conflict resolution. Focuses on the regulations in the employment, consumer protection, environmental, land-use control and real property, sole proprietorships, partnerships, corporations, antitrust, securities regulation, comparative and international law areas.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*  
*Limited transfer to UC; contact a counselor for details.*

**BUSAD 222**  
**INDEPENDENT STUDENT IN BUSINESS**  
**ADMINISTRATION** 1-3 UNITS  
**PREREQUISITE: None.**  
**LABORATORY: 3-9 hours per week.**

Assigned projects involving research and analysis of selected topics or directed study for students who are interested in furthering their knowledge of business administration on an independent study basis. For each unit earned, students are required to devote three hours per week throughout the semester. Enrollment limited to those who meet independent study criteria. Prior to registration, a contract must be prepared. See instructor for details.

*Associate Degree Applicable*  
*Course credit transfers to CSU for elective credit only.*

## BUSINESS CALCULATIONS

DIVISION: Business & Information Technology  
 DIVISION DEAN: Margaret Ortiz, M.A.  
 DEPARTMENT HEAD: Nickolas Zoumbos, M.S.  
 Business 100D  
 (909) 384-8912  
 DIVISION SECRETARY: Chris Williams  
 DIVISION OFFICE: Business 101  
 (909) 384-8908  
 LIAISON COUNSELOR: Marco Cota, M.A.  
 (909) 384-4404

Courses in Business Calculations are designed to present the fundamentals of mathematics within the context of the field of business. These courses are an important complement to courses in accounting, economics and business.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Employ vocabulary of the subject studied.

### COURSES OFFERED BY THE DEPARTMENT OF BUSINESS CALCULATIONS:

**BUSCAL 050**  
**QUANTITATIVE METHODS IN BUSINESS** 3 UNITS  
**PREREQUISITE: None.**  
**DEPARTMENTAL ADVISORY: MATH 952.**  
**LECTURE: 3 hours per week.**

This introductory course includes business applications of fractions, decimals, and percents; the use of pocket calculator to solve business applications, such as markups, payroll, discounts, simple interest, compound interest, consumer loans; and an introduction to solving one-variable linear equations.

*Associate Degree Applicable*

**BUSCAL 091**  
**BEGINNING ALGEBRA FOR BUSINESS** 4 UNITS  
**PREREQUISITE: MATH 952 or BUSCAL 050.**  
**LECTURE: 4 hours per week.**

Review of operations on integers and properties of real numbers including solving linear equations and inequalities; ratio, proportion and percent, and the applications of these operations; exponents and polynomials; factoring; an introduction to quadratic equations; rational expressions; graphing linear equations; and applications in business such as markdowns, simple and compound interest, break-even analysis, and supply and demand.

*Associate Degree Applicable*

**BUSCAL 200**  
**ALGEBRA AND FINITE METHODS IN BUSINESS** 3 UNITS

**PREREQUISITE: MATH 095.**  
**LECTURE: 3 hours per week.**

A course in college algebra including the study of sets and set operations, integral and rational exponents, radicals, quadratic equations, linear equations and systems of equations, linear inequalities and systems of inequalities, logarithms, sequences and series, functions. Applications of these in business including simple and compound interest, supply and demand, market equilibrium, and break-even analysis, and optimization and maximization. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**BUSCAL 208**  
**BUSINESS AND ECONOMICS STATISTICS** 4 UNITS  
**PREREQUISITE: MATH 095.**  
**LECTURE: 4 hours per week.**

A review of statistical methods commonly used in business and economics including measures of central tendency; measures of dispersion and skewness; probability concepts and distributions; statistical inferences; parametric and non-parametric hypothesis testing; index numbers time series analysis, simple regression, and correlation analysis. This course is also offered as ECON 208.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*  
*Limited transfer to UC; contact a counselor for details.*

## CHEMISTRY

DIVISION: Science and Math  
 DIVISION DEAN: Haragewen Kinde, Ed.D.  
 DEPARTMENT HEAD: John Stankas, Ph.D.  
 Chemistry 114  
 (909) 384-8268  
 OTHER FACULTY: Susan Bangasser, Ph.D.  
 Judy Okamura, Ph.D.  
 DIVISION SECRETARY: Rose Garcia  
 DIVISION OFFICE: Chemistry 121  
 (909) 384-8645  
 LIAISON COUNSELOR: Rafael Herrera, M.S.  
 (909) 384-4404

The Chemistry program is designed to meet the diverse needs of students served by the community college: (a) students majoring in chemistry or related sciences, (b) students majoring in one of the health sciences, and (c) students fulfilling the general education science requirement.

Courses in the Chemistry Department are taught with a strong emphasis on the laboratory. In the advanced classes, students receive hands-on experience with a wide variety of instruments.

Students planning to transfer to a four-year institution and major in chemistry should consult with a counselor regarding the transfer process and lower division requirements.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Employ vocabulary of the subject studied.
- Find and interpret information.
- Utilize technology to organize and present information.
- Apply learned knowledge to new situations.
- Apply principles of scientific reasoning to solve problems.
- Defend a logical hypothesis to explain observed phenomenon.

### CHEMISTRY ASSOCIATE OF SCIENCE DEGREE

The Chemistry program is designed to meet the diverse needs of students served by the community college: (a) students majoring in chemistry or related sciences, (b) students majoring in one of the health sciences, and (c) students fulfilling the general education science requirements.

Courses in the Chemistry Department are taught with a strong emphasis on the laboratory. In the advanced classes, students receive hands-on experience with a wide variety of instruments.

Students planning to transfer to a four-year institution and major in chemistry should consult with a counselor regarding the transfer process and lower division requirements.

REQUIRED COURSES:	UNITS
CHEM 150 or CHEM 150H General Chemistry I	5
CHEM 151 or CHEM 151H General Chemistry II	5
CHEM 212 or CHEM 212H Organic Chemistry I	4
CHEM 213 or CHEM 213H Organic Chemistry II	4
<b>TOTAL UNITS:</b>	<b>18</b>

RECOMMENDED COURSES:	UNITS
MATH 250 Single Variable Calculus I	4
PHYSIC 150A or PHYSIC 200 General Physics I	5-6
PHYSIC 150B or PHYSIC 201 General Physics II	5-6

### COURSES OFFERED BY THE DEPARTMENT OF CHEMISTRY:

#### CHEM 085 ALGEBRA REVIEW WORKSHOP FOR CHEMISTRY .50 UNIT

**PREREQUISITE:** MATH 090.

**COREQUISITE:** CHEM 101.

**LECTURE:** .50 hour per week.

An algebra review workshop for students in CHEM 101 with an emphasis on how to use mathematics and algebra to solve chemistry problems. Graded on Credit/No Credit basis only.

*Associate Degree Applicable*

#### CHEM 101 INTRODUCTORY CHEMISTRY 4 UNITS

**PREREQUISITE:** MATH 090.

**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.

A study of the physical and chemical properties of common elements and compounds, the metric system, measurement, atomic structure, the periodic table, chemical equations, gasses, solutions, ionization, and an introduction to organic and biochemistry.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

*Limited transfer to UC; contact a counselor for details.*

*CAN (California Articulation Number): CHEM 6*

#### CHEM 104 INTRODUCTION TO ORGANIC CHEMISTRY AND BIOCHEMISTRY 4 UNITS

**PREREQUISITE:** CHEM 101.

**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.

An introduction to the structure, bonding and typical chemical properties of the different classes of organic compounds and biomolecules.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

*Limited transfer to UC; contact a counselor for details.*

*CAN (California Articulation Number): CHEM 8*

#### CHEM 110 CONSUMER AND ENVIRONMENTAL CHEMISTRY 3 UNITS

**PREREQUISITE:** None.

**LECTURE:** 3 hours per week.

A study of the role of chemistry in society that fulfills a general education requirement. These topics are included: physical and chemical properties of common elements and compounds, gases, reactions, atomic structure, simple organic and biochemical compounds, causes and possible solutions for chemical pollution, household and medical uses of chemicals.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

*Limited transfer to UC; contact a counselor for details.*

#### CHEM 150 GENERAL CHEMISTRY I 5 UNITS

**PREREQUISITES:** CHEM 101 and MATH 102.

**LECTURE:** 3 hours per week and  
**LABORATORY:** 6 hours per week.

An introduction to college-level chemistry with an emphasis on the mole concept, thermochemistry, atomic and molecular structure, interactions, periodic chart, organic chemistry, solids, liquids and gases.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

*Limited transfer to UC; contact a counselor for details.*

*CAN (California Articulation Number): CHEM 2*

**CHEM 150H**  
**GENERAL CHEMISTRY I – HONORS** 5 UNITS  
**PREREQUISITES: CHEM 101 and MATH 102.**  
**LECTURE: 3 hours per week and**  
**LABORATORY: 6 hours per week.**

An introduction to college-level chemistry with an emphasis on the mole concept, thermochemistry, atomic and molecular structure, interactions, periodic chart, organic chemistry, solids, liquids and gases. Enrollment is limited to students eligible for the Honors Program.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

*Limited transfer to UC; contact a counselor for details.*

**CHEM 151**  
**GENERAL CHEMISTRY II** 5 UNITS  
**PREREQUISITE: CHEM 150.**

**LECTURE: 3 hours per week and**  
**LABORATORY: 6 hours per week.**

The second half of a two-part sequence in chemistry with an emphasis on thermodynamics, equilibrium calculations, kinetics, and electrochemistry.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

*Limited transfer to UC; contact a counselor for details.*

*CAN (California Articulation Number): CHEM 4*

**CHEM 151H**  
**GENERAL CHEMISTRY II – HONORS** 5 UNITS  
**PREREQUISITES: CHEM 150 and CHEM 150H.**

**LECTURE: 3 hours per week and**  
**LABORATORY: 6 hours per week.**

The second half of a two-part sequence in chemistry with an emphasis on thermodynamics, equilibrium calculations, kinetics, and electrochemistry. Enrollment is limited to students eligible for the Honors Program.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

*Limited transfer to UC; contact a counselor for details.*

**CHEM 212**  
**ORGANIC CHEMISTRY I** 4 UNITS  
**PREREQUISITE: CHEM 150 or CHEM 150H.**

**LECTURE: 3 hours per week and**  
**LABORATORY: 3 hours per week.**

First semester of organic chemistry. Carbon compounds including aliphatic, aromatic, and heterocyclic series, and modern theoretical concepts are studied. Students identify properties, synthesis, and reactions of functional groups. Mechanisms are examined in detail. Laboratory includes preparation, identification, and study of the properties of organic compounds.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

*Limited transfer to UC; contact a counselor for details.*

**CHEM 212H**  
**ORGANIC CHEMISTRY I – HONORS** 4 UNITS  
**PREREQUISITES: CHEM 150 and CHEM 150H.**  
**LECTURE: 3 hours per week and**  
**LABORATORY: 3 hours per week.**

First semester of organic chemistry. Carbon compounds including aliphatic, aromatic, and heterocyclic series, and modern theoretical concepts are studied. Students identify properties, synthesis, and reactions of functional groups. Mechanisms are examined in detail. Laboratory includes preparation, identification and the study of properties of organic compounds. Enrollment is limited to students eligible for the Honors Program.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

*Limited transfer to UC; contact a counselor for details.*

**CHEM 213**  
**ORGANIC CHEMISTRY II** 4 UNITS  
**PREREQUISITE: CHEM 212.**

**LECTURE: 3 hours per week and**  
**LABORATORY: 3 hours per week.**

Second semester of organic chemistry, continuing the study of carbon compounds including aliphatic, aromatic and heterocyclic series, and modern theoretical concepts. Includes modern instrumentation, mechanisms, synthesis and functional groups. Laboratory includes preparation, study of the properties, and extensive identification of organic compounds.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

*Limited transfer to UC; contact a counselor for details.*

**CHEM 213H**  
**ORGANIC CHEMISTRY II – HONORS** 4 UNITS  
**PREREQUISITE: CHEM 212 or CHEM 212H.**

**LECTURE: 3 hours per week and**  
**LABORATORY: 3 hours per week.**

Second semester of organic chemistry. A study of carbon compounds including aliphatic, aromatic and heterocyclic series, and modern theoretical concepts. Includes modern instrumentation, mechanisms, synthesis and functional groups. Laboratory includes preparation and study of properties, and extensive identification of organic compounds. Enrollment is limited to students eligible for the Honors Program.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

*Limited transfer to UC; contact a counselor for details.*

**CHEM 222**  
**SPECIAL PROBLEMS IN CHEMISTRY I** 1 UNIT  
**PREREQUISITE: CHEM 150 or CHEM 150H.**

**INDEPENDENT STUDY: 3 hours per week.**

Assigned problems involving library and/or laboratory work for selected students who are interested in furthering their knowledge of chemistry on an independent study basis. Students are required to devote three hours per week to their project throughout the semester. Prior to registration, a contract must be prepared. See instructor for details.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

*Limited transfer to UC; credit determined after transfer to UC.*



**CHEM 223**  
**SPECIAL PROBLEMS IN CHEMISTRY II**      **2 UNITS**  
**PREREQUISITE: CHEM 150 or CHEM 150H.**  
**INDEPENDENT STUDY: 6 hours per week.**

Assigned problems involving library and/or laboratory work for selected students who are interested in furthering their knowledge of chemistry on an independent study basis. Students are required to devote six hours per week to their project throughout the semester. Prior to registration, a contract must be prepared. See instructor for details.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

*Limited transfer to UC; credit determined after transfer to UC.*

## CHILD DEVELOPMENT

DIVISION: Social Science & Human Development  
 DIVISION DEAN: Janice Noble, M.Ed.  
 DEPARTMENT HEAD: Juliann Martin, M.A.  
 North Hall 244  
 (909) 384-4457  
 OTHER FACULTY: Kathryn Adams, M.S.  
 Kellie Barnett, M.S.  
 Denise Knight, B.A.  
 Susan Shimoff, M.A.  
 Debra Ward, M.S.  
 DIVISION SECRETARY: To Be Announced  
 DIVISION OFFICE: Liberal Arts, Room 122  
 (909) 384-8603  
 LIAISON COUNSELOR: Mary Beth Barrios, M.S.  
 (909) 384-4404

The Child Development Department has both an academic and vocational orientation. The academic program leads students along a path toward an Associate of Arts degree that articulates with higher education and transfers into continued study suitable for a baccalaureate degree. Students planning to transfer to a four-year institution and major in child development or a related field should consult with a counselor regarding the transfer process and lower division requirements.

The vocational program, which interfaces with the academic program, prepares students for immediate employment. Certificates offered by the Child Development Department prepare students for work with specific age groups: Infant, Preschool, and School Age. The Family Child Care Provider Certificate, provides a curriculum to prepare students to establish quality family child care centers in their homes.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Write clearly.
- Speak clearly.
- Employ vocabulary of the subject studied.
- Demonstrate active listening skills.
- Apply learned knowledge to new situations.
- Demonstrate respect for a diversity of ideas and the rights of others.
- Give and receive constructive feedback.
- Work effectively in group settings.
- Utilize conflict resolution skills.

- Demonstrate knowledge of and respect for other cultures.

## CHILD DEVELOPMENT ASSOCIATE OF ARTS DEGREE

To graduate with a specialization in Child Development, students must complete the following required courses (28 units) plus the general breadth requirements for the Associate of Arts degree. (Total = 60 units)

<b>REQUIRED COURSES:</b>		<b>UNITS</b>
CD 100	Introduction to Child Development	3
CD 105	Child Growth and Development	3
CD 112	Principles and Practices in Early Childhood	3
CD 126	Child, Family and the Community	3

<b>FOUR COURSES FROM THE FOLLOWING LIST:</b>		<b>12</b>
CD 101	Parent Child Interaction	(3)
CD 130	Creative Music and Movement for Children	(3)
CD 133	Creative Science and Math Activities for Children	(3)
CD 134	Language, Listening and Literature for Children	(3)
CD 136	Creative Art Activities for Children	(3)
CD 137	Play and Materials for Children	(3)
CD 138	Cultural Diversity/Anti-Bias Curric	(3)
CD 140	Spanish for Child Development	(3)
CD 231	Health and Safety Practices for Children	(3)
CD 232	Nutrition for Young Children	(3)

<b>EXPERIENCE WORKING WITH CHILDREN:</b>		<b>4</b>
CD 198	Child Development Work Exp	(4)
or		
CD 205x2	Child Growth and Development Lab	(4)

**TOTAL CHILD DEVELOPMENT UNITS: 28**

**General Breadth Requirements & Elective Units: 32**  
 (See catalog and/or counselor.)

**TOTAL UNITS: 60**

### 1. ASSOCIATE TEACHER CERTIFICATE

This certificate is designed to prepare students for entry-level work as a childcare worker nurturing and teaching children of all ages in childcare centers, nursery schools, preschools, public schools, private households, family childcare homes, and before- and after-school programs, and meets California Title V requirements for the Child Development permit.

<b>REQUIRED COURSES:</b>		<b>UNITS</b>
CD 100	Introduction to Child Development	3
CD 105	Child Growth and Development	3
CD 112	Principles and Practices in Early Childhood	3
CD 126	Child, Family and the Community	3

<b>EXPERIENCE WORKING WITH CHILDREN:</b>		<b>4</b>
CD 198	Child Development Work Exp	4
or		
CD 205X2	Child Growth and Development Lab	(4)

**TOTAL UNITS: 16**

**ADDITIONAL RECOMMENDED COURSES:**

CD 116X4	Pediatric CPR, First Aid and Safety	2
CD 130	Creative Music and Movement for Children	3
CD 134	Language, Listening and Literature for Children	3
CD 136	Creative Art Activities for Children	3
CD 137	Play and Materials for Children	3

**2. TEACHER CERTIFICATE**

This certificate is designed to prepare students for the next level of instruction when working with children in a preschool or childcare setting, focusing on developing age-appropriate lesson plans for the classroom, and observation/assessment of children. Meets California Title V requirements for the Child Development permit. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

**REQUIRED COURSES: UNITS**

CD 100	Introduction to Child Development	3
CD 105	Child Growth and Development	3
CD 112	Principles and Practices in Early Childhood	3
CD 126	Child, Family and the Community	3

**TWO COURSES FROM THE FOLLOWING LIST: 6**

CD 130	Creative Music and Movement for Children	(3)
CD 134	Language, Listening and Literature for Children	(3)
CD 136	Creative Art Activities for Children	(3)
CD 137	Play and Materials for Children	(3)

**TWO COURSES FROM THE FOLLOWING LIST: 6**

CD 101	Parent Child Interaction	(3)
CD 133	Creative Science and Math Activities for Children	(3)
CD 138	Cultural Diversity/Anti-Bias Curric	(3)
CD 140	Spanish for Child Development	(3)
CD 231	Health and Safety Practices for Children	(3)
CD 232	Nutrition for Young Children	(3)

**EXPERIENCE WORKING WITH CHILDREN: 4-8**

CD 198	Child Development Work Exp	4-8
or		
CD 205X2	Child Growth and Development Laboratory	(4-8)

**GENERAL EDUCATION COURSES: 16-18**

Math or Natural Science	3-4
Social and Behavioral Science *SOC 130	3
Communication and Learning Skills *ENGL 015 or ENGL 101	4
Humanities *ART 103 or MUS 121 or 122	4
Electives	2-3

\*These courses are recommended selections to meet the GE requirement

**TOTAL UNITS: 44-50****3. MASTER TEACHER CERTIFICATE**

This certificate prepares students to supervise, mentor and assist other teachers and aides in a preschool or childcare setting. Meets California Title V requirements for

the Child Development permit. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

**REQUIRED COURSES: UNITS**

CD 100	Introduction to Child Development	3
CD 105	Child Growth and Development	3
CD 112	Principles and Practices in Early Childhood	3
CD 126	Child, Family and the Community	3
CD 270	The Mentor Teacher/Adult Supervision	3

**CHILD DEVELOPMENT SPECIALIZATION: 6**

CD 130	Creative Music and Movement for Children	3
and		
CD 136	Creative Art Activities for Children	3

or

CD 134	Language, Listening and Literature for Children	3
and		
ENGL 155	Children's Literature	3
or		
ENGL 055	Children's Literature	(3)

or

CD 138	Cultural Diversity/Anti-Bias Curric	3
and		
CD 140	Spanish for Child Development	3

or

CD 160	Understanding School-Age Children	3
and		
CD 161	Activities for School Age Children	3

or

CD 185	Infant/Toddler Growth and Dev	3
and		
CD 186	Infant/Toddler Activities	3

or

CD 231	Health and Safety Practices for Children	3
and		
CD 232	Nutrition for Young Children	3

**TWO COURSES FROM THE FOLLOWING LIST: 6**

CD 130	Creative Music and Movement for Children	(3)
CD 134	Language, Listening and Literature for Children	(3)
CD 136	Creative Art Activities for Children	(3)
CD 137	Play and Materials for Children	(3)

**ONE COURSE FROM THE FOLLOWING LIST: 3**

CD 101	Parent Child Interaction	(3)
CD 133	Creative Science and Math Activities for Children	(3)
CD 138	Cultural Diversity/Anti-Bias Curric	(3)
CD 140	Spanish for Child Development	(3)
CD 231	Health and Safety Practices for Children	(3)
CD 232	Nutrition for Young Children	(3)

**EXPERIENCE WORKING WITH CHILDREN: 4-8**

CD 198	Child Development Work Experience	4-8
or		
CD 205X2	Child Growth and Development Lab	(4-8)

<b>GENERAL EDUCATION COURSES (16 units required):</b>	<b>16</b>
Communication and Learning Skills *ENGL 015 or ENGL 101	4
Social and Behavioral Sciences: *SOC 130	3
Humanities *ART 103 or MUS 121 or MUS 122	4
Natural Science or Math	3-4
Elective Courses	2-3
<b>TOTAL UNITS:</b>	<b>50-54</b>

*\*These courses are recommended selections to meet the GE requirement*

#### 4. SITE SUPERVISOR CERTIFICATE

This certificate is designed to prepare students with the necessary knowledge and skills to be qualified as a preschool or childcare center site supervisor. Meets California Title V requirements for the Child Development permit. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

<b>REQUIRED COURSES:</b>	<b>UNITS</b>
CD 100 Introduction to Child Development	3
CD 105 Child Growth and Development	3
CD 112 Principles and Practices in Early Childhood	3
CD 126 Child, Family and the Community	3
CD 270 The Mentor Teacher/Adult Supervision	3
CD 271 Administration of Early Childhood Programs	3
CD 272 Advanced Administration of Early Childhood Programs	3

<b>TWO COURSES FROM THE FOLLOWING LIST:</b>	<b>6</b>
CD 130 Creative Music and Movement for Children	(3)
CD 134 Language, Listening and Literature for Children	(3)
CD 136 Creative Art Activities for Children	(3)
CD 137 Play and Materials for Children	(3)

<b>TWO COURSES FROM THE FOLLOWING LIST:</b>	<b>6</b>
CD 101 Parent Child Interaction	(3)
CD 133 Creative Science and Math Activities for Children	(3)
CD 138 Cultural Diversity/Anti-Bias Curriculum	(3)
CD 140 Spanish for Child Development	(3)
CD 231 Health and Safety Practices for Children	(3)
CD 232 Nutrition for Young Children	(3)

<b>EXPERIENCE WORKING WITH CHILDREN:</b>	<b>4-8</b>
CD 198 Child Development Work Experience	4-8

<b>GENERAL EDUCATION COURSES:</b>	<b>27</b>
Communication and Learning Skills *ENGL 015 or ENGL 101	
Social and Behavioral Sciences: *SOC 130	
Humanities *ART 103 or MUS 121 or MUS 122	
Natural Science or Math	
Elective Courses	
<b>TOTAL UNITS:</b>	<b>60-64</b>

*\*These courses are recommended selections to meet the GE requirement*

#### 5. INFANT DEVELOPMENT CERTIFICATE

This certificate is similar to that of the Associate Teacher, and is designed to prepare students for entry-level work specializing in the care of infants (0-36 months) as an assistant to the teacher in a childcare or infant care

setting. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

<b>REQUIRED COURSES:</b>	<b>UNITS</b>
CD 100 Introduction to Child Development	3
CD 105 Child Growth and Development	3
CD 112 Principles and Practices in Early Childhood	3
CD 185 Infant/Toddler Growth and Dev	3
CD 186 Infant/Toddler Activities	3
CD 126 Child, Family and Community	3
CD 231 Health and Safety Practices for Children	3
CD 232 Nutrition for Young Children	3

<b>ONE COURSE FROM THE FOLLOWING LIST:</b>	<b>3</b>
CD 101 Parent-Child Interaction	(3)
CD 136 Creative Art Activities for Children	(3)
CD 137 Play and Materials for Children	(3)
CD 244 Children with Special Needs	(3)

<b>EXPERIENCE WORKING WITH CHILDREN:</b>	<b>4</b>
<i>(Ages birth - 24 months)</i>	

CD 210X2 Infant Growth and Development Lab	4
<b>TOTAL UNITS:</b>	<b>31</b>

#### 6. PRESCHOOL CERTIFICATE

This certificate is similar to that of the Associate Teacher, and is designed to prepare students for entry-level work as a pre-school classroom or childcare facility assistant specializing in the care of children from 3-6 years. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

<b>REQUIRED COURSES:</b>	<b>UNITS</b>
CD 100 Introduction to Child Development	3
CD 105 Child Growth and Development	3
CD 112 Principles and Practices in Early Childhood	3
CD 116X4 Pediatric CPR, First Aid and Safety	2
CD 126 Child, Family and Community	3

<b>FIVE COURSES FROM THE FOLLOWING LIST:</b>	<b>15</b>
CD 101 Parent-Child Interaction	(3)
CD 130 Creative Music and Movement for Children	(3)
CD 133 Creative Science and Math Activities for Children	(3)
CD 134 Language, Listening and Literature for Children	(3)
CD 136 Creative Art Activities	(3)
CD 137 Play and Materials for Children	(3)
CD 138 Cultural Diversity/Anti-Bias Curriculum	(3)
CD 140 Spanish for Child Development	(3)
CD 231 Health and Safety Practices for Children	(3)
CD 232 Nutrition for Young Children	(3)

<b>EXPERIENCE WORKING WITH CHILDREN:</b>	<b>4</b>
CD 205X2 Child Growth and Development Laboratory	4
<b>TOTAL UNITS:</b>	<b>33</b>

#### 7. SCHOOL-AGE CERTIFICATE

This certificate is similar to that of the Associate Teacher, and is designed to prepare students for entry-level work as an assistant in after-school programs or childcare facilities that serve older children from 6-12 years of age. Students

working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

<b>REQUIRED COURSES:</b>		<b>UNITS</b>
CD 100	Introduction to Child Development	3
CD 105	Child Growth and Development	3
CD 112	Principles and Practices in Early Childhood	3
CD 160	Understanding School-Age Children	3
CD 161	Activities for School-Age Children	3
CD 126	Child, Family and Community	3

**THREE COURSES FROM THE FOLLOWING LIST: 9**

CD 134	Language, Listening and Literature for Children	(3)
CD 137	Play and Materials for Children	(3)
CD 138	Cultural Diversity/Anti-Bias Curriculum	(3)
CD 231	Health and Safety Practices for Children	(3)
CD 232	Nutrition for Young Children	(3)

**EXPERIENCE WORKING WITH CHILDREN: 4**

(Ages 6-12 years)

CD 198	Child Development Work Experience	
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**TOTAL UNITS: 31**

**8. FAMILY CHILD CARE PROVIDER CERTIFICATE**

This certificate is designed to prepare students for entry-level work in the care of children in a Family Childcare or Home Daycare program and/or facility setting. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

<b>REQUIRED COURSES:</b>		<b>UNITS</b>
CD 100	Introduction to Child Development	3
CD 105	Child Growth and Development	3
CD 112	Principles and Practices in Early Childhood	3
CD 116X 4	Pediatric CPR, First Aid and Safety	2
CD 136	Creative Art Activities for Children	3
CD 172	Introduction to Family Child Care	1
CD 173	Family Child Care Business Practices	1
CD 174	Family Child Care Children's Program	1

**ONE COURSE FROM THE FOLLOWING LIST: 3**

CD 161	Activities for School Age Children	(3)
CD 186	Infant/Toddler Activities	(3)

**EXPERIENCE WORKING WITH CHILDREN: 4**

(in Family Child Care)

CD 198	Child Development Work Experience	4
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**TOTAL UNITS: 24**

**ADDITIONAL RECOMMENDED COURSES :**

CD 231	Health and Safety Practices for Children	3
BUSAD 105	Small Business Management	3

\*Pending approval from the California Community College Chancellor's Office

**COURSES OFFERED BY THE DEPARTMENT OF CHILD DEVELOPMENT:**

**CD 081 PARENTING THE INFANT 3 UNITS**

**PREREQUISITE: None.**

**LECTURE: 3 hours per week.**

A focus on parenting roles and responsibilities for nurturing infants.

*Associate Degree Applicable*

**CD 100 INTRODUCTION TO CHILD DEVELOPMENT 3 UNITS**

**PREREQUISITE: None.**

**LECTURE: 3 hours per week.**

Introduction to the field of children's studies designed to familiarize students with the broad aspects of the profession, philosophy and principles of caring for children in a variety of settings.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**CD 101 PARENT-CHILD INTERACTION 3 UNITS**

**PREREQUISITE: None.**

**LECTURE: 3 hours per week.**

A review of the concept of human development and its interaction within the biological, psychological, social and cultural phenomena and their relationship to children's and parent's attitudes and behavior. Family dynamic, communication and discipline are explored.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**CD 105 CHILD GROWTH AND DEVELOPMENT 3 UNITS**

**PREREQUISITE: None.**

**LECTURE: 3 hours per week.**

Growth and development of children from the prenatal period through adolescence; with an emphasis on individual, physical, cognitive, and socioemotional needs of children. Practical experience observing and interacting with children.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

*Limited transfer to UC; contact a counselor for details.*

*CAN (California Articulation Number): FCS 14*

**CD 105H CHILD GROWTH AND DEVELOPMENT – HONORS 3 UNITS**

**PREREQUISITE: None.**

**LECTURE: 3 hours per week.**

Study of the growth and development of children from the prenatal period through adolescence; with an emphasis on individual, physical, cognitive, and socio-emotional needs of children. Practical experience observing and interacting with children. **Enrollment is limited to students eligible for the Honors Program.**

*Associate Degree Applicable*

*Course credit transfers to CSU.*

*Limited transfer to UC; contact a counselor for details.*

**CD 111** **2 UNITS**  
**OBSERVATIONS AND METHODS IN CHILD DEVELOPMENT**  
**PREREQUISITE/COREQUISITE: CD 105.**  
**LECTURE: 1 hour per week and**  
**LABORATORY: 3 hours per week.**  
Introduction to observational methodologies and techniques used in the study of early childhood behavior including observation, recording, analysis, and interpretation as they relate to developmental principles, theories, and current research.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**CD 112** **3 UNITS**  
**PRINCIPLES AND PRACTICES IN EARLY CHILDHOOD EDUCATION**  
**PREREQUISITE: None.**  
**DEPARTMENTAL ADVISORY: CD 105.**  
**LECTURE: 3 hours per week.**  
Studies the practices and principles of working with young children. Emphasis is on observation and evaluation, developing age appropriate lesson plans, guiding and understanding young children.  
*Applicable to Associate Degree*  
*Course credit transfers to CSU.*

**CD 116x4** **2 UNITS**  
**PEDIATRIC CPR, FIRST AID AND SAFETY**  
**PREREQUISITE: None.**  
**LECTURE: 1.5 hours per week and**  
**LABORATORY: 1.5 hours per week.**  
Certification of pediatric CPR, pediatric first aid, prevention of the spread of infectious disease, immunizations, child safety and injury prevention. Meets community and state licensing recommendations for child care workers. This course may be taken four times.  
*Applicable to Associate Degree*  
*Course credit transfers to CSU.*

**CD 120x3** **1 UNIT**  
**LABORATORY PREPARATION IN CHILD DEVELOPMENT**  
**PREREQUISITE: One course in child development.**  
**LABORATORY: 3 hours per week.**  
Practical laboratory techniques designed to acquaint students with the preparation of materials commonly used in child education. This course may be taken three times.  
*Associate Degree Applicable*  
*Course credit transfers to CSU for elective credit only.*

**CD 126** **3 UNITS**  
**CHILD, FAMILY, AND THE COMMUNITY**  
**PREREQUISITE: None.**  
**DEPARTMENTAL ADVISORY: CD 105.**  
**LECTURE: 3 hours per week.**  
Essentials and principles of preschool programs as they relate to the child, parent and teacher with emphasis on the interactions among the child, family and the community. Includes types of preschool programs, licensing regulations, discipline and the services available to families.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**CD 128** **3 UNITS**  
**CREATIVE EXPERIENCES FOR CHILDREN**  
**PREREQUISITE: None.**  
**LECTURE: 3 hours per week.**  
The study of children's creativity including strategies to promote creativity in art, music, movement, and drama and the uses of creative activities as a way to develop children's cognitive skills, social skills, and aesthetic appreciation.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**CD 130** **3 UNITS**  
**CREATIVE MUSIC AND MOVEMENT FOR CHILDREN**  
**PREREQUISITE: None.**  
**LECTURE: 3 hours per week.**  
Will explore the importance of music and movement for the development of the young child. Developing creative experiences in both music and movement to bring out the child's ability to express themselves using rhythm, sounds and movement. Experiences with musical instruments to use with children in the classroom along with ways to bring music and movement ideas into the daily lesson plan.  
*Applicable to Associate Degree*  
*Course credit transfers to CSU.*

**CD 133** **3 UNITS**  
**CREATIVE SCIENCE AND MATH ACTIVITIES FOR CHILDREN**  
**PREREQUISITE: CD 105.**  
**LECTURE: 3 hours per week.**  
Study of basic scientific theories and practices for teaching young children simple methods and processes of science and math. Classifying, simple reasoning, observing, making hypothesis, testing, generalizing causes and effect, using energy, matter and living things are explored. Fundamental mathematical concepts such as one to one correspondence, number sense and counting sets and classifying, parts and whole, basic measurements, ordering and patterning are also explored.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**CD 134** **3 UNITS**  
**LANGUAGE, LISTENING AND LITERATURE FOR CHILDREN**  
**PREREQUISITE: CD 105.**  
**LECTURE: 3 hours per week.**  
The study of language acquisition in children and techniques and experiences which promote language development and listening skills. Includes examination of children's literature and teaching strategies for reading picture books to children as well as presenting poetry, flannel board activities, puppetry and storytelling in the classroom.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**CD 136**  
**CREATIVE ART EXPERIENCES FOR CHILDREN** 3 UNITS

**PREREQUISITE:** None.

**LECTURE:** 3 hours per week.

The study of children's creativity including strategies to promote and value artists' development through activities using developmentally appropriate art materials and tools. Includes development of an art curriculum, which focuses on the emotional, social, physical, creative and cognitive needs of children from 2-8 years of age.

*Applicable to Associate Degree  
Course credit transfers to CSU.*

**CD 137**  
**PLAY AND MATERIALS FOR CHILDREN** 3 UNITS

**PREREQUISITE:** None.

**DEPARTMENTAL ADVISORY:** CD 105.

**LECTURE:** 3 hours per week.

In depth study of the dynamic of play and play materials for children including the rationale for play as a facilitator of learning. History and philosophy of play, current theories and their relationships to materials as they are utilized in creating and implementing play environments for children.

*Associate Degree Applicable  
Course credit transfers to CSU.*

**CD 138**  
**CULTURAL DIVERSITY - ANTI-BIAS CURRICULUM** 3 UNITS

**PREREQUISITE:** None.

**LECTURE:** 3 hours per week.

This course is designed to help students explore and address diversity in ways that enhance their own development and the development of the children they will encounter as teachers and parents.

*Associate Degree Applicable  
Course credit transfers to CSU.*

**CD 140**  
**SPANISH FOR CHILD DEVELOPMENT** 3 UNITS

**PREREQUISITE:** None.

**LECTURE:** 3 hours per week.

Language and listening experiences in Spanish through the use of literature, music, conversation and dramatic play. Emphasis will be placed on acquisition of basic communication skills appropriate for those students teaching or planning to teach in early childhood bilingual-bicultural learning environments. (This course is equivalent to SPAN 140)

*Associate Degree Applicable  
Course credit transfers to CSU.*

**CD 142-143-144-145-146**  
**ISSUES IN CHILD DEVELOPMENT** 1-2 UNITS

**PREREQUISITE:** None.

**LECTURE:** 1-2 hours per week and/or

**LABORATORY:** 2-3 hours per week per unit.

Lecture on issues, principles, theories and trends in the field of early childhood development. This course is appropriate for teachers, parents, day care workers, volunteers, aides and others interested in programs serving young children. Selected topics include foster parenting, strategies of discipline, grieving, and emancipation of foster children.

*Associate Degree Applicable  
Course credit transfers to CSU for elective credit only.*

**CD 150-151-152-153-154-155**  
**PARENTING ISSUES IN CHILD DEVELOPMENT** 2 UNITS

**PREREQUISITE:** None.

**LECTURE:** 1 hour per week and

**LABORATORY:** 3 hours per week.

Designed for participants in the campus Child Development Center, this course provides a framework for discussing parenting and education issues that emerge while working at the Center. **PARTICIPATION AT THE CHILD DEVELOPMENT CENTER IS REQUIRED.**

*Associate Degree Applicable  
Course credit transfers to CSU for elective credit only.*

**CD 160**  
**UNDERSTANDING SCHOOL-AGE CHILDREN** 3 UNITS

**PREREQUISITE:** None.

**LECTURE:** 3 hours per week.

Designed to prepare students to work with children ages five years through adolescence, this course includes developmental theories and the practical implications of those theories. This course incorporates licensing regulations as required by Title 22 licensed facilities.

*Associate Degree Applicable  
Course credit transfers to CSU.*

**CD 161**  
**ACTIVITIES FOR SCHOOL-AGE CHILDREN** 3 UNITS

**PREREQUISITE:** None.

**LECTURE:** 3 hours per week.

A survey of program and activity planning for school age children including both before- and after-school activities for groups and individuals.

*Associate Degree Applicable  
Course credit transfers to CSU.*

**CD 172**  
**FAMILY CHILD CARE** 1 UNIT

**PREREQUISITE:** None.

**LECTURE:** 1 hour per week.

An introduction to in-home business practices, general development of children, and California licensing practices.

*Associate Degree Applicable  
Course credit transfers to CSU as elective credit only.*

**CD 173**  
**FAMILY CHILD CARE BUSINESS PRACTICES** 1 UNIT

**PREREQUISITE:** None.

**LECTURE:** 1 hour per week.

Includes advertising, fees, collections, and record-keeping systems for family day care. Also includes child care food program regulations and licensing standards.

*Associate Degree Applicable  
Course credit transfers to CSU for elective credit only.*

**CD 174**  
**FAMILY CHILD CARE CHILDREN'S PROGRAMS** 1 UNIT

**PREREQUISITE:** None.

**LECTURE:** 1 hour per week.

Strategies for organizing the child's day in family day care. Includes a review of age level development, suggested activities for each age, the importance of establishing routines, techniques for arranging the physical environment, and working with parents.

*Associate Degree Applicable  
Course credit transfers to CSU for elective credit only.*

**CD 185**  
**INFANT/TODDLER GROWTH AND DEVELOPMENT**  
**3 UNITS**

**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week.

Designed for infant caregivers, this course explores the developmental, sensory, cognitive and emotional development of children from birth to age three. This course fulfills licensing requirements for Infant Center personnel and includes record-keeping, parent issues and the development of services, and daily plans of activities.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**CD 186**  
**INFANT/TODDLER ACTIVITIES**  
**3 UNITS**

**PREREQUISITE:** None.

**LECTURE:** 3 hours per week.

A survey of program and activity planning for infants and toddlers child care programs, emphasizing curriculum and good practice specific to infants, toddlers and two-year-old children.

*Applicable to Associate Degree*  
*Course credit transfers to CSU.*

**CD 198**  
**CHILD DEVELOPMENT WORK EXPERIENCE**  
**1-4 UNITS**

**PREREQUISITE:** None.

Supervised training in the form of on the job employment that will enhance the student's educational goals. The student's major and job must match. Students work 5-20 hours per week to earn units using the following formula: For paid work, 75 hours = 1 unit; for volunteer work, 60 hours = 1 unit. Students may earn a total of 16 units toward graduation in Work Experience 198 courses. Students MUST be working for pay or volunteer before registering for a Work Experience class. NOTE: Only one section of Work Experience may be taken during a semester.

*Associate Degree Applicable*  
*Course credit transfers to CSU for elective credit only.*

**CD 205x2**  
**CHILD GROWTH AND DEVELOPMENT LABORATORY**  
**4 UNITS**

**PREREQUISITE/COREQUISITE:** CD 105.

**LECTURE:** 1.5 hour per week and

**LABORATORY:** 8.5 hours per week.

Supervised experience and participation in a group program for preschool children at the SBVC Child Development Center. Emphasis is on curriculum planning and evaluation, discipline, guidance techniques, instructional method, cooperative relationships with staff, parents, children and professional ethics.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**CD 210x2**  
**INFANT GROWTH AND DEVELOPMENT**  
**LABORATORY**  
**4 UNITS**

**PREREQUISITE/COREQUISITE:** CD 185.

**LECTURE:** 1.5 hour per week and

**LABORATORY:** 8.5 hours per week.

This course is designed to provide child development students with a supervised teaching experience in an infant care setting. The student is responsible for developing an appropriate individual program for the infants in their care. The lecture will be devoted to techniques to enhance effectiveness and a discussion of the laboratory experience. This course may be taken twice.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**CD 222**  
**SPECIAL PROBLEMS IN CHILD DEVELOPMENT I**  
**1 UNIT**

**PREREQUISITE:** None.

**DEPARTMENTAL ADVISORY:** Complete one 3-unit course in Child Development.

**INDEPENDENT STUDY:** 3 hours per week.

Assigned problems involving library, laboratory, or conference work for selected students who are interested in furthering their knowledge of child development on an independent study basis. Students are required to devote three hours per week to their project throughout the semester. Prior to registration, a contract must be prepared. See instructor for details.

*Associate Degree Applicable*  
*Course credit transfers to CSU for elective credit only.*

**CD 231**  
**HEALTH AND SAFETY PRACTICES FOR CHILDREN**  
**3 UNITS**

**PREREQUISITES:** CD 105 and CD 126.

**LECTURE:** 3 hours per week.

This course will focus on the exploration of essential aspects and concerns of health and safety for children in early education programs. Examination of relationship of preventive health care and safety measures to optimal development and education. Focus on how to provide high quality, secure environments and health, safety and educational experiences. Knowledge of basic management of accidental injuries and illness.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**CD 232**  
**NUTRITION FOR YOUNG CHILDREN**  
**3 UNITS**

**PREREQUISITE:** None.

**LECTURE:** 3 hours per week.

Nutrition issues relating to the basic needs of children from the prenatal period through adolescence with an emphasis on meal planning for child care facilities, and federal, state, and local regulations.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**CD 244**  
**CHILDREN WITH SPECIAL NEEDS** 3 UNITS  
**PREREQUISITE: CD 105.**  
**LECTURE: 3 hours per week.**

This course is designed to introduce characteristics of children with special needs. The course will provide a means of identification of a sensitivity to the needs and feelings of children with special needs and their families. Legal requirements of educating the child with disabilities or other special needs will be identified.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**CD 270**  
**THE MENTOR TEACHER/ADULT SUPERVISION** 3 UNITS

**PREREQUISITE: CD 105.**  
**DEPARTMENTAL ADVISORY: Two years teaching experience and possession of a Child Development Permit (or completion of 24 units in child development coursework).**  
**LECTURE: 3 hours per week.**

The methods and principles of supervising student teachers in early childhood classrooms. Emphasis is on the role of experienced classroom teachers who function as mentors to new teachers while simultaneously addressing the needs of children, parents and other staff.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**CD 271**  
**ADMINISTRATION OF EARLY CHILDHOOD PROGRAMS** 3 UNITS  
**PREREQUISITES: CD 105 and CD 126.**  
**LECTURE: 3 hours per week.**

This course is an introduction to basic principles of administration of early childhood education programs. Specific topics include curriculum development and evaluation; licensing laws and regulations; site development; budgeting and fiscal management; working with parents, nutrition, health and safety issues and problem solving techniques.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**CD 272**  
**ADVANCED ADMINISTRATION OF EARLY CHILDHOOD PROGRAMS** 3 UNITS  
**PREREQUISITE: None.**  
**DEPARTMENTAL ADVISORY: CD 271.**  
**LECTURE: 3 hours per week.**

This course will address administrative skills, knowledge and techniques needed to organize and operate a child development facility. Emphasis will be on principled centered leadership, budget and fiscal management, working with a board, funding opportunities, staffing, staff development opportunities, personnel policies, working with parents, volunteers and the community, regulatory laws, problem solving techniques. This class meets state requirements for supervision of Title 22 preschool programs and the Child Development matrix for Master Teachers, Site Supervisor and Program Directors.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**CD 293**  
**ELEMENTARY LABORATORY: INTRODUCTION TO EARLY FIELD EXPERIENCE** 3 UNITS  
**PREREQUISITE: EDU 290.**  
**LECTURE: 2 hours per week and LABORATORY: 2 hours per week.**

This course offers supervised experience and participation in an elementary school setting for prospective elementary school teachers. Emphasis is on understanding the role of the elementary school teacher, instructional methods, aiding literacy, cooperative relationships with staff, parents, children and professional ethics of teaching. This is a required class for all Liberal Studies/ Education majors transferring to CSUSB seeking a teaching credential.

*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

**CD 295-296-297-298-299**  
**SPECIAL TOPICS IN CHILD DEVELOPMENT** .5 UNIT  
**PREREQUISITE: None.**  
**LECTURE: 8 hours per semester.**

Seminars on selected topics in the field of child development developed to address current issues, such as infants born with addictions; bonding with foster parents; bilingual education; discipline strategies with teenagers; and self-esteem of foster children.

*Associate Degree Applicable*  
*Course credit transfers to CSU for elective credit only.*

## COMPUTER INFORMATION TECHNOLOGY

DIVISION: Business & Information Technology  
DIVISION DEAN: Margaret Ortiz, M.A.  
DEPARTMENT HEAD: Roger Powell, M.S.  
Business 200E  
(909) 384-8910  
OTHER FACULTY: Maha Al-Husseini, B.A.  
Mona Jackson, M.A.  
Barbara Saxon, B.S.I.S.  
Vernon Stauble, Ph.D.  
Susan Vajna, B.A.  
Mary Lou Vasquez, B.A.  
DIVISION SECRETARY: Chris Williams  
DIVISION OFFICE: Business 101  
(909) 384-8908  
LIAISON COUNSELOR: Marco Cota, M.A.  
(909) 384-4404

The Computer Information Technology (CIT) Department provides a program of study for students who are preparing for employment in the field of computer management in business.

The CIT Department offers a complete introduction to computers and software, specific training in selected software packages, and advanced courses dealing with networks, specialized programming techniques, and management of computer facilities.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Write clearly.
- Employ vocabulary of the subject studied.



- Utilize technology to organize and present information.
- Demonstrate working knowledge of basic computer function.

**CIT – MANAGEMENT INFORMATION SYSTEMS  
ASSOCIATE OF ARTS DEGREE**

To graduate with a degree in Management Information Systems, students must complete the following required courses plus the general breadth requirements for the Associate Degree (total = 60 units).

<b>REQUIRED COURSES:</b>	<b>UNITS</b>
CIT 101 Introduction to Computer Literacy	3
CIT 114 Spreadsheets: Excel	3
CIT 116 Database Management: Access	3
CIT 120 Internet	2
CIT 200 Business Programming Visual Basic	3
CIT 210 Systems Analysis and Design	3
CIT 215 Database Management Systems	3
CIT 232 Data Communications and Networks	3
<b>TOTAL UNITS:</b>	<b>23</b>

**CIT – MANAGEMENT INFORMATION SYSTEMS  
CERTIFICATE**

Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select. The MIS Certificate offers a complete introduction to computers, specific training in selected software packages, advanced courses dealing with networks, and management of computer facilities.

<b>REQUIRED COURSES:</b>	<b>UNITS</b>
CIT 101 Introduction to Computer Literacy	3
CIT 105 Windows	2
CIT 114 Spreadsheets: Excel	3
CIT 116 Database Management: Access	3
CIT 120 Internet	2
CIT 200 Business Programming Visual Basic	3
CIT 210 Systems Analysis and Design	3
CIT 215 Database Management Systems	3
CIT 232 Data Communications and Networks	3
CIT 031 Business English	3
Or	
ENGL 015 Preparation for College Writing	(4)
Or	
ENGL 101 Freshman Composition	(4)
<b>Three units from the list of RECOMMENDED COURSES:</b>	<b>3</b>
<b>TOTAL UNITS:</b>	<b>31-32</b>

<b>RECOMMENDED COURSES:</b>	<b>UNITS</b>
CIT 222 Independent Study in CIT	1-3
CIT 020 Word Processing – Microsoft Word	3

**CIT – OFFICE INFORMATION SYSTEMS  
ASSOCIATE OF ARTS DEGREE**

To graduate with a degree in Office Information Systems, students must complete the following required courses plus the general breadth requirements for the Associate Degree (total = 60 units).

<b>REQUIRED COURSES:</b>	<b>UNITS</b>
BUSAD 039 Strategies for Successful Employment	3
CIT 101 Introduction to Computer Literacy	3
CIT 105 Windows	2
CIT 016 Advanced Keyboarding	3
CIT 032 Machine Transcription	3
CIT 030 Records and Database Management	3
CIT 020 Word Processing: Microsoft Word	3
<b>ELECTIVES – choose from the list of RECOMMENDED COURSES:</b>	<b>3</b>

**TOTAL UNITS: 23**

<b>RECOMMENDED COURSES:</b>	<b>UNITS</b>
CIT 114 Spreadsheets: Excel	3
CIT 116 Database Management: Access	3
CIT 126 Computer Graphics	3

**CIT - OFFICE INFORMATION SYSTEMS  
CERTIFICATES**

Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

There are three Office Information Systems Certificates: Administrative Assistant, Clerical Assistant, and Information Processing Specialist. **Each of these certificates requires the core courses plus specialized courses.**

**CORE REQUIREMENTS FOR OFFICE INFORMATION  
SYSTEMS CERTIFICATES:**

<b>REQUIRED COURSES:</b>	<b>UNITS</b>
CIT 105 Windows	2
CIT 198 Work Experience	(1-4)
BUSAD 039 Strategies for Successful Employment	3
CIT 013 Intermediate Keyboarding	3
CIT 031 Business English	3
CIT 020 Word Processing: Microsoft Word	3
<b>TOTAL UNITS for Office Information Core Requirements:</b>	<b>15-18</b>

**1. ADMINISTRATIVE ASSISTANT**

<b>REQUIRED COURSES:</b>	<b>UNITS</b>
CIT 101 Introduction to Computer Literacy	3
CIT 016 Advanced Keyboarding	3
CIT 032 Machine Transcription	3
CIT 030 Records and Database Management	3
CIT 033 Machine Calculations	3
CIT 114 Spreadsheets: Excel	3
CIT 116 Database Management: Access	3
CIT 126 Computer Graphics	3
<b>ELECTIVE – Choose from the list of RECOMMENDED COURSES:</b>	<b>3</b>

<b>RECOMMENDED COURES:</b>	<b>UNITS</b>
BUSCAL 050 Quantitative Methods in Business	3
SPAN 015 Conversational Spanish	3
<b>TOTAL UNITS:</b>	<b>42-45</b>

**2. CLERICAL ASSISTANT**

<b>REQUIRED COURSES:</b>	<b>UNITS</b>
<b>Office Information Core Requirements</b>	<b>15-18</b>
CIT 101 Introduction to Computer Literacy	3
CIT 016 Advanced Keyboarding	3

CIT 030	Records and Database Management	3
CIT 033	Machine Calculations	3
<b>ELECTIVE – Choose from the list of RECOMMENDED COURSES:</b>		<b>3</b>
<b>RECOMMENDED COURSES:</b>		<b>UNITS</b>
BUSCAL 050	Quantitative Methods in Business	3
CIT 114	Spreadsheets: Excel	3
CIT 116	Database Management: Access	3
SPAN 015	Conversational Spanish	3
<b>TOTAL UNITS:</b>		<b>30-33</b>

### 3. INFORMATION PROCESSING SPECIALIST

<b>REQUIRED COURSES:</b>		<b>UNITS</b>
<b>Office Information Core Requirements</b>		<b>15-18</b>
CIT 101	Introduction to Computer Literacy	3
CIT 114	Spreadsheets: Excel	3
CIT 116	Database Management: Access	3
CIT 126	Computer Graphics	3
<b>ELECTIVE – Choose from the list of RECOMMENDED COURSES:</b>		<b>3</b>

<b>RECOMMENDED COURSES:</b>		<b>UNITS</b>
BUSCAL 050	Quantitative Methods in Business	3
CIT 016	Advanced Keyboarding	3
CIT 032	Machine Transcription	3
CIT 030	Records and Database Management	3
SPAN 015	Conversational Spanish	3
<b>TOTAL UNITS:</b>		<b>30-33</b>

### COURSES OFFERED BY THE DEPARTMENT OF COMPUTER INFORMATION TECHNOLOGY:

**CIT 008**  
**BEGINNING KEYBOARDING, PART I**                      **1.5 UNITS**  
**PREREQUISITE: None.**  
**LECTURE: 1 hour per week and**  
**LABORATORY: 1.5 hours per week.**  
Keyboard mastery and correct stroking techniques leading to maximum skill in typing. Use of speed and accuracy drills designed to develop a keyboarding speed of at least 18 words per minute. This is a Part I course students can complete in half a semester.  
*Associate Degree Applicable*

**CIT 009**  
**BEGINNING KEYBOARDING, PART II**                      **1.5 UNITS**  
**PREREQUISITE: CIT 008.**  
**LECTURE: 1 hour per week and**  
**LABORATORY: 1.5 hours per week.**  
Instruction and practice in typing personal and business letters, rough drafts, simple manuscripts, simple tabulation reports and various styles of letters. Practice in developing speed and control. Designed to develop a minimum keyboarding speed of 30 words per minute for five minutes. This is a Part II course students can complete in half a semester.  
*Associate Degree Applicable*

**CIT 010**  
**BEGINNING KEYBOARDING**                                      **3 UNITS**  
**PREREQUISITE: None.**  
**LECTURE: 2 hours per week and**  
**LABORATORY: 3 hours per week.**

Fundamentals of keyboarding including operation of a standard keyboard by touch. Instruction and practice in formatting a variety of personal and business documents, such as letters, reports, and tables. Use of speed and accuracy drills designed to develop a keyboarding speed of 30 words per minute for five minutes. This is a combined Part I and Part II course students can complete in one semester.  
*Associate Degree Applicable*

**CIT 013**  
**INTERMEDIATE KEYBOARDING**                                      **3 UNITS**  
**PREREQUISITE: CIT 010 or CIT 009.**  
**LECTURE: 2 hours per week and**  
**LABORATORY: 3 hours per week.**

Procedures for arranging and tabulating materials and preparing letters and business forms with an emphasis on accuracy and speed. Designed to develop a keyboarding speed of 45 words per minute for five minutes.  
*Associate Degree Applicable*

**CIT 016**  
**ADVANCED KEYBOARDING**                                      **3 UNITS**  
**PREREQUISITE: CIT 013.**  
**DEPARTMENTAL ADVISORY: CIT 020.**  
**LECTURE: 2 hours per week and**  
**LABORATORY: 3 hours per week.**

Presents advanced applications of document processing that occur in modern offices including preparation of legal papers, financial reports, statistical materials, introductory desktop applications, and advanced letter production. Emphasis on skill building; producing documents with a computer; following directions; and the use of judgment and initiative in preparing documents.  
*Associate Degree Applicable*

**CIT 020**  
**WORD PROCESSING: MICROSOFT WORD**                                      **3 UNITS**  
**PREREQUISITE: None.**  
**DEPARTMENTAL ADVISORY: CIT 010 or CIT 009.**  
**LECTURE: 3 hours per week.**

The production of professional quality documents using Microsoft Word software including the use and design of macros, and special features such as merging, preparing labels, and making columns and tables.  
*Associate Degree Applicable*

**CIT 021**  
**WORD PROCESSING: ADVANCED MICROSOFT WORD**                                      **3 UNITS**  
**PREREQUISITE: CIT 020.**  
**LECTURE: 3 hours per week.**

The production of professional quality documents using Microsoft Word's advanced features with bookmarks, annotations, macros, borders, frames, WordArt, Equation Editor, newspaper columns, styles, form templates, tables of contents, indexes, table of figures, table of authorities, charts, and hyperlinks, and preparation for Microsoft Certification exams.  
*Associate Degree Applicable*

**CIT 030**  
**RECORDS AND DATABASE MANAGEMENT 3 UNITS**  
**PREREQUISITE: None.**  
**LECTURE: 3 hours per week.**  
The course provides an introduction to manual and computerized filing systems. The principles governing records storage, and how to locate when needed, and how to apply the criteria for determining their disposition or retention are thoroughly explored.  
*Associate Degree Applicable*

**CIT 031**  
**BUSINESS ENGLISH 3 UNITS**  
**PREREQUISITE: None.**  
**LECTURE: 3 hours per week.**  
Review of basic grammar, punctuation, capitalization and spelling. Emphasis on grammar, vocabulary building for effective business communication, and writing common business letters and memos.  
*Associate Degree Applicable*

**CIT 032**  
**MACHINE TRANSCRIPTION 3 UNITS**  
**PREREQUISITE: CIT 020.**  
**DEPARTMENTAL ADVISORY: CIT 031.**  
**LECTURE: 2 hours per week and**  
**LABORATORY: 3 hours per week.**  
The course provides instruction and practice in document formatting, editing, proofreading, and listening as well as the preparation of industry-specific documents for transcription.  
*Associate Degree Applicable*

**CIT 033**  
**MACHINE CALCULATIONS 3 UNITS**  
**PREREQUISITE: None.**  
**DEPARTMENTAL ADVISORY: BUSCAL 050 or**  
**MATH 952.**  
**LECTURE: 2 hours per week and**  
**LABORATORY: 3 hours per week.**  
Instruction and practice on electronic desk calculators with application of skills to problems and mathematical computation for business and industry.  
*Associate Degree Applicable*

**CIT 043**  
**LEGAL OFFICE PROCEDURES 3 UNITS**  
**PREREQUISITE: CIT 010 or CIT 009.**  
**LECTURE: 3 hours per week.**  
Specialized training for the legal office assistant including legal terminology; legal correspondence; professional relations with employers and clients; California Codes and court rules; and preparation and handling of legal forms.  
*Associate Degree Applicable*

**CIT 044**  
**MEDICAL OFFICE TERMINOLOGY 3 UNITS**  
**PREREQUISITE: None.**  
**LECTURE: 3 hours per week.**  
The course covers the origin, correct spelling, pronunciation, meaning, and current use of medical terms and their application to medical records and reports.  
*Associate Degree Applicable*

**CIT 045**  
**MEDICAL INSURANCE FORMS 3 UNITS**  
**PREREQUISITE: None.**  
**DEPARTMENTAL ADVISORIES: CIT 010 and CIT 044.**  
**LECTURE: 3 hours per week.**  
A comprehensive study of various types of health insurance programs including insurance benefits, patient cost, sharing coverage, insurance terminology, and the proper handling of insurance claims in medical and dental offices.  
*Associate Degree Applicable*

**CIT 048**  
**MEDICAL OFFICE PROCEDURES 3 UNITS**  
**PREREQUISITE: CIT 010 or CIT 009.**  
**DEPARTMENTAL ADVISORY: CIT 020.**  
**LECTURE: 3 hours per week.**  
This course prepares students for employment as "front office" administrative medical assistants. Instruction is provided for both the traditional and technological medical environments. The course covers the medical environment and ethics. Students learn to input patient information, schedule appointments, handle billing, produce lists and reports, and handle insurance claims manually and electronically.  
*Associate Degree Applicable*

**CIT 080**  
**INSIDE THE PERSONAL COMPUTER 3 UNITS**  
**PREREQUISITE: None.**  
**LECTURE: 3 hours per week.**  
An introduction to the personal computers at the machine level. Topics include the system board, keyboard, floppy and hard disk drives, interface cards, monitors, printers, machine organization, and design conventions.  
*Associate Degree Applicable*

**CIT 091**  
**NETWORKING FUNDAMENTALS, SEMESTER ONE 3 UNITS**  
**(CISCO NETWORKING ACADEMY)**  
**PREREQUISITE: None.**  
**DEPARTMENTAL ADVISORIES: MATH 952 and**  
**CIT 105.**  
**LECTURE: 2 hours per week and**  
**LABORATORY: 3 hours per week.**  
Designed to provide students with classroom and laboratory experience in the fundamentals of current and emerging networking technology. Topics covered include network topology, cabling, electrical considerations, the OSI model, Internet Protocol, addressing, bridges, switches, hubs, and routers. This is the first course in a four-course CCNA preparation sequence.  
*Associate Degree Applicable*

**CIT 092**  
**NETWORKING FUNDAMENTALS BASIC ROUTING,**  
**SEMESTER TWO (CISCO NETWORKING ACADEMY)**  
**3 UNITS**

**PREREQUISITE: CIT 091.**

**LECTURE: 2 hours per week and**  
**LABORATORY: 3 hours per week.**

This course is the second in a series of four semester courses designed to prepare the student to test for the Cisco Certified Network Associate (CCNA) certification. CCNA certification indicates a foundation in and apprentice knowledge of networking for the small home/office market. Topics covered include router fundamentals, router setup and configuration, network management, routing and routed protocols, and network troubleshooting.

*Associate Degree Applicable*

**CIT 093**  
**FUNDAMENTALS OF LANS, LOCAL AREA**  
**NETWORKS, SEMESTER THREE**  
**(CISCO NETWORKING ACADEMY)**  
**3 UNITS**

**PREREQUISITE: CIT 092.**

**LECTURE: 2 hours per week and**  
**LABORATORY: 3 hours per week.**

The third semester of the Cisco Academy provides students with classroom and laboratory experience in configuring routers for various industry standard protocols. It includes, but is not limited to segmentation of LAN's using bridges, routers, and switches; and virtual LANs, Fast Ethernet, cut-through and store and forward LAN switching.

*Associate Degree Applicable*

**CIT 094**  
**FUNDAMENTALS OF WANS WIDE AREA NETWORKS,**  
**SEMESTER FOUR (CISCO NETWORKING ACADEMY)**  
**3 UNITS**

**PREREQUISITE: CIT 093.**

**LECTURE: 2 hours per week and**  
**LABORATORY: 3 hours per week.**

This course provides the fundamentals in Wide Area Network topologies, interfaces, protocols, linking technology, frame encapsulation, design, internetworking structure and theory, ISDN and ISDN components, configuration, frame relay, and subinterfaces. Learn through theory and hands-on application in the process of designing, configuring, installing and implementing a Wide Area Network.

*Associate Degree Applicable*

**CIT 095**  
**ADVANCED ROUTERS, SEMESTER FIVE**  
**(CISCO NETWORKING ACADEMY)**  
**3 UNITS**

**PREREQUISITE: CIT 094.**

**LECTURE: 2 hours per week and**  
**LABORATORY: 3 hours per week.**

Cisco Semester Five focuses on advanced routing and using Cisco routers connected to local-area networks (LANs) and wide-area networks (WANs) typically found at medium to large network sites where students will be able to select and implement the appropriate Cisco IOS services required to build a scalable routed network. This is a first in a series of four courses recommended for CCNP (Cisco Certified network Professional) certification.

*Associate Degree Applicable*

**CIT 096**  
**REMOTE ACCESS, SEMESTER SIX**  
**(CISCO NETWORKING ACADEMY)**  
**3 UNITS**

**PREREQUISITE: CIT 095.**

**LECTURE: 2 hours per week and**  
**LABORATORY: 3 hours per week.**

Cisco Semester Six focuses on Remote Access to the network. This course will provide students with learning experiences in asynchronous dial-up, ISDN, DDR, X.25, Frame Relay, ODR, Wan backup, queuing, compression, NAT, and AAA. This is the second in a series of four courses recommended for CCNP (Cisco Certified network Professional) certification.

*Associate Degree Applicable*

**CIT 097**  
**LAN SWITCHING, SEMESTER SEVEN**  
**(CISCO NETWORKING ACADEMY)**  
**3 UNITS**

**PREREQUISITE: CIT 094.**

**LECTURE: 2 hours per week and**  
**LABORATORY: 3 hours per week.**

Cisco Semester Seven focuses on LAN Switching. The course will provide students with learning experiences in traditional campus networks, LAN media types, basic switch configurations, VLANs, Multilayer Switching, HSRP, Multicasting, and Restricting Network Access. This is the third in a series of four courses recommended for CCNP (Cisco Certified Network Professional) certification.

*Associate Degree Applicable*

**CIT 098**  
**NETWORK TROUBLESHOOTING, SEMESTER EIGHT**  
**(CISCO NETWORKING ACADEMY)**  
**3 UNITS**

**PREREQUISITE: CIT 094.**

**LECTURE: 2 hours per week and**  
**LABORATORY: 3 hours per week.**

Cisco Semester Eight focuses on Network Troubleshooting. The course will provide students with learning experiences in troubleshooting methodologies. It will include Protocol Overview, Management and Diagnostic Tools, Troubleshooting TCP/IPS, LAN Switches, VLANs, Routing and Switching Processes, Frame Relay, ISDNs, and AppleTalk. This is the fourth in a series of four courses recommended for CCNP (Cisco Certified Network Professional) certification.

*Associate Degree Applicable*

**CIT 100**  
**INTRODUCTION TO PERSONAL COMPUTERS**  
**3 UNITS**

**PREREQUISITE: None.**

**LECTURE: 3 hours per week.**

A survey course for the use of software tools such as word processing, spreadsheets, graphics, presentation and database using Microsoft Office which includes hands-on experience on PC compatible computers.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**CIT 101**  
**INTRODUCTION TO COMPUTER LITERACY 3 UNITS**  
**PREREQUISITE: None.**  
**DEPARTMENTAL ADVISORY: CIT 010 or CIT 008.**  
**LECTURE: 3 hours per week.**

The course covers basic computer concepts including hardware components and application software programs. Topics include components of a computer system (CPU, memory, ports, busses, etc.), operating systems and utilities programs, communication and network, ethical issues, and usage of the Internet. The course covers also the use of word processing software to generate business documents, the use of the spreadsheets. Students will learn how to create, modify, insert formulas, use what-if-analysis/goal seek concepts, and format worksheets professionally. In addition the course covers the use of database software and covers concepts such as creating tables, queries, forms, and reports, and the use of presentation software and personal information management software such as Outlook.

*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*  
*Limited transfer to UC; contact a counselor for details.*  
*CAN (California Articulation Number): BUS 6*

**CIT 102**  
**ADVANCED COMPUTER LITERACY 3 UNITS**  
**PREREQUISITE: CIT 101.**  
**LECTURE: 3 hours per week.**

Expands upon the basic fundamentals of hardware computer concepts, theory and software applications by creating word processing, spreadsheet, database, and presentation graphics and documents introduced in CIT 101.

*Associate Degree Applicable*  
*Course credit transfers to CSU for elective credit only.*

**CIT 105**  
**INTRODUCTION TO WINDOWS 2 UNITS**  
**PREREQUISITE: None.**  
**LECTURE: 1.5 hours per week and**  
**LABORATORY: 1.5 hours per week.**

Course will provide the necessary background to understand the graphical user interface of the most widely used operating system. An introduction to the computer operating system that simplifies the process of working with documents and applications, transferring data between documents, and organizing the manner in which one interacts with a computer.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**CIT 114**  
**SPREADSHEETS: EXCEL 3 UNITS**  
**PREREQUISITE: None.**  
**DEPARTMENTAL ADVISORY: CIT 100 or CIT 101.**  
**LECTURE: 3 hours per week.**

Production of workbooks using EXCEL, which integrates spreadsheet analysis, information management, and graphics. Includes the design and the use of worksheets; how to enter labels, numbers, formulas, and create graphs; how to format worksheets professionally; how to use Excel functions in different applications and understand the concept of data management in Excel; how to use the concept of what-if-analysis; how to consolidate data in a 3-D workbook and establish File Linking; and how to integrate Excel with the Web.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**CIT 116**  
**DATABASE MANAGEMENT: ACCESS 3 UNITS**  
**PREREQUISITE: None.**  
**DEPARTMENTAL ADVISORY: CIT 100 or CIT 101.**  
**LECTURE: 3 hours per week.**

Development and maintenance of a database. Provides a working knowledge of designing a database and setting field properties, storing, retrieving, printing, and indexing records; creating informational and technical queries; developing customized forms and reports; establishing different types of relationships; integrating Access with the Web; and creating a database Switchboard. Emphasis on developing a practical ability to use a database in a Windows environment with full graphical user interface functionality.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**CIT 118**  
**MICROSOFT POWERPOINT 3 UNITS**  
**PREREQUISITE: None.**  
**DEPARTMENTAL ADVISORY: CIT 105.**  
**LECTURE: 3 hour per week.**

Introduction to a presentation graphics program for those who plan to make effective and compelling presentations. Instruction includes developing and customizing presentations by using charts, clip art, pictures, presentation templates, WordArt, and information and graphics from Word, Excel, and Access.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**CIT 120**  
**INTERNET 2 UNITS**  
**PREREQUISITE: None.**  
**DEPARTMENTAL ADVISORY: CIT 105.**  
**LECTURE: 1.5 hours per week and**  
**LABORATORY: 1.5 hours per week.**

Basics of the Internet using the World Wide Web and Netscape Navigator. Internet and the Information Superhighway provide electronic access to products, services and resources available throughout the United States and the world.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**CIT 122**  
**WEB PUBLISHING 3 UNITS**  
**PREREQUISITE: None.**  
**DEPARTMENTAL ADVISORY: CIT 101.**  
**LECTURE: 3 hours per week.**

An introduction to Web Page design in a hypertext language such as HTML, Fusion, or FrontPage. Topics include design and construction of effective web pages, the World Wide Web, Internet, searching and loading files, interface and navigation, color and graphics, text and image files, and updating a web site.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**CIT 126**  
**COMPUTER GRAPHICS** **3 UNITS**  
**PREREQUISITE: CIT 101.**  
**LECTURE: 3 hours per week.**  
 An introduction course to graphic design using graphic software. Topics include the study of good graphic design skills and how to apply them, learning graphics software to create professional-looking documents and hands-on experiencing using the PC.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**CIT 150**  
**OFFICE APPLICATION DEVELOPMENT** **3 UNITS**  
**PREREQUISITE: CIT 101.**  
**DEPARTMENTAL ADVISORY: CIT 102.**  
**LECTURE: 2 hour per week and**  
**LABORATORY: 3 hours per week.**  
 An introduction to Visual Basic for Application, Microsoft's application scripting language for Microsoft office applications. Topics include: programming basics; automated formatting of spreadsheet and word processor documents; design and construction of customized data entry screens for databases.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**CIT 198**  
**COMPUTER INFORMATION TECHNOLOGY**  
**WORK EXPERIENCE** **1-4 UNITS**  
**PREREQUISITE: None.**  
 Supervised training in the form of on the job employment that will enhance the student's educational goals. The student's major and job must match. Students work 5-20 hours per week to earn units using the following formula: For paid work, 75 hours = 1 unit; for volunteer work, 60 hours = 1 unit. Students may earn a total of 16 units toward graduation in Work Experience 198 courses. Students **MUST** be working for pay or volunteer before registering for a Work Experience class. **NOTE:** Only one section of Work Experience may be taken during a semester.  
*Associate Degree Applicable*  
*Course credit transfers to CSU for elective credit only.*

**CIT 210**  
**SYSTEMS ANALYSIS AND DESIGN** **3 UNITS**  
**PREREQUISITE: CIT 101.**  
**LECTURE: 3 hours per week.**  
 Introduction to systems analysis and design using traditional development (SDLC) and current techniques, such as client server and object-oriented development, GUI, and electronic data interchange. Emphasis on the role of the analyst, project management techniques, communication skills, economic analysis tools, and computer-assisted system engineering options.  
*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

**CIT 215**  
**DATABASE MANAGEMENT SYSTEMS** **3 UNITS**  
**PREREQUISITE: None.**  
**DEPARTMENTAL ADVISORY: CIT 101.**  
**LECTURE: 3 hours per week.**  
 An introduction to the components of relational database management including data definition language, data manipulation language, screen generation, the use of report writers, and Structured Query Language (SQL).  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**CIT 222**  
**INDEPENDENT STUDY IN COMPUTER**  
**INFORMATION TECHNOLOGY** **1-3 UNITS**  
**PREREQUISITE: CIT 101.**  
**LABORATORY: 3-9 hours per week.**  
 Assigned projects involving research and analysis of selected topics or directed study for students who are interested in furthering their knowledge of information technology on an independent study basis. For each unit earned, students are required to devote three hours per week throughout the semester. Enrollment limited to those who meet independent study criteria. Prior to registration, a contract must be prepared. See instructor for details.  
*Associate Degree Applicable*  
*Course credit transfers to CSU for elective credit only.*

**CIT 232**  
**DATA COMMUNICATIONS AND NETWORKS** **3 UNITS**  
**PREREQUISITE: CIT 101.**  
**LECTURE: 3 hours per week.**  
 An introduction to human-to-computer and computer-to-computer communications. Topics include data transmission, modems, network configurations, protocols and software, telecommunication, teleprocessing, security, and the control and management of LAN's and WAN's.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

## COMPUTER SCIENCE

DIVISION:	Science and Math
DIVISION DEAN:	Haragewen Kinde, Ed.D.
DEPARTMENT HEAD:	John Stanskas, Ph.D. Chemistry 114 (909) 384-8268
DIVISION SECRETARY:	Rose Garcia
DIVISION OFFICE:	Chemistry 121 (909) 384-8645
LIAISON COUNSELOR:	Rafael Herrera, M.S. (909) 384-4404

Courses offered by the Computer Science Department are interactive, featuring hands-on experience with the college's computer hardware and software. The courses cover a range of topics in the computer field with an emphasis on software engineering and information processing.

The Computer Science curriculum may culminate in either an Associate of Science degree or a certificate. The degree program prepares students to transfer to a four-year institution with a major in computer science or a related discipline. Students planning to transfer to a four-year institution and major in computer science should consult with a counselor regarding the transfer process and lower division requirements. The certificate program

prepares students for entry-level employment as programmers for scientific and business applications.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Employ vocabulary of the subject studied.
- Utilize technology to organize and present information.
- Demonstrate working knowledge of basic computer function.
- Apply learned knowledge to new situations.
- Apply principles of scientific reasoning to solve problems.

**COMPUTER SCIENCE  
ASSOCIATE OF SCIENCE DEGREE**

To graduate with a specialization in Computer Science and intending to transfer to four-year institutions, students must complete a total of 29 units listed below in addition to general education requirements.

<b>REQUIRED COURSES:</b>		<b>UNITS</b>
CS 110	Fundamentals of Computer Science	3
CS 190	Programming in C++	4
CS 265	Data Structures	3
PHYSIC 200	General Physics I	6
PHYSIC 201	General Physics II	6

<b>SELECT ONE OF THE FOLLOWING COURSES:</b>	<b>3-4</b>
CS 130 Applied Computer Logic	(3)
CS 170 Assembly Language	(4)
CS 215 Programming with Java	(4)
<b>TOTAL UNITS:</b>	<b>25-26</b>

**COMPUTER SCIENCE CERTIFICATE**

This certificate is designed to provide students with the fundamentals of software engineering, information processing concepts, and programming to prepare them for entry-level positions as programmers for scientific and business applications. In addition, this certificate completes the lower division requirements of the certificate program offered by the Computer Science Department at CSU San Bernardino.

<b>REQUIRED COURSES:</b>		<b>UNITS</b>
CS 110	Fundamentals of Computer Science	3
CIT 100	Introduction to Personal Computers	3
CS 120	Introduction to Visual Basic.NET	4
CS 220	Visual Basic.NET Programming II	3
<b>SELECT ONE OF THE FOLLOWING COURSES:</b>	<b>4</b>	
CS 190	Programming in C++	(4)
CS 215	Programming with Java	(4)
<b>TOTAL UNITS:</b>	<b>17</b>	

**COURSES OFFERED BY THE DEPARTMENT OF  
COMPUTER SCIENCE:**

**CS 110  
FUNDAMENTALS OF COMPUTER SCIENCE 3 UNITS**  
**PREREQUISITE: MATH 095.**  
**LECTURE: 2 hours per week and**  
**LABORATORY: 3 hours per week.**

An orientation in computer science for computer science majors. Topics include an overview of the computer discipline, the design and use of the computer devices, the art of problem solving and programming, and the representation of data. Includes hands-on experience in computer programming using languages such as Visual Basic.NET and C++.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*  
*Limited transfer to UC; contact a counselor for details.*

**CS 120  
INTRODUCTION TO VISUAL BASIC.NET 4 UNITS**  
**PREREQUISITE: None.**  
**LECTURE: 3 hours per week and**  
**LABORATORY: 3 hours per week.**

An introduction to a Web-based programming language, Visual Basic.NET as it applies to scientific, business and manufacturing settings. Topics include problem solving, graphical user interface, program design, software tools, structured logic, object-oriented programming, graphics and animation, procedures, arrays, files, and Web projects.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*  
*CAN (California Articulation Number): CSCI 6*

**CS 130  
APPLIED COMPUTER LOGIC 3 UNITS**  
**PREREQUISITE: CS 110.**  
**LECTURE: 3 hours per week.**

An introduction to digital systems. Topics include Boolean algebra, truth tables, logic gates, number systems and codes, Karnaugh maps, flip-flops, counters and registers, digital arithmetic, combinatorial logic and functions.  
*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

**CS 170  
ASSEMBLY LANGUAGE 4 UNITS**  
**PREREQUISITE: CS 110.**  
**LECTURE: 3 hours per week and**  
**LABORATORY: 3 hours per week.**

An introduction to assembly language and machine organization. Topics include memory location, register references, data definitions, machine instructions, screen processing, disk storage and macros.  
*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*  
*CAN (California Articulation Number): CSCI 10*

**CS 190**  
**PROGRAMMING IN C++** 4 UNITS  
**PREREQUISITE:** CS 110.

**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week

This course is an introduction to the object-oriented language, C++. Topics include object-oriented design, program logic structures, problem solving techniques, arrays and records, procedures and functions, classes and objects, pointers and references, inheritance, and polymorphism.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

*CAN (California Articulation Number): CSCI 16*

**CS 198**  
**COMPUTER SCIENCE WORK EXPERIENCE** 1-4 UNITS

**PREREQUISITE:** None.

Supervised training in the form of on the job employment that will enhance the student's educational goals. The student's major and job must match. Students work 5-20 hours per week to earn units using the following formula: For paid work, 75 hours = 1 unit; for volunteer work, 60 hours = 1 unit. Students may earn a total of 16 units toward graduation in Work Experience 198 courses. Students MUST be working for pay or volunteer before registering for a Work Experience class. NOTE: Only one section of Work Experience may be taken during a semester.

*Associate Degree Applicable*

*Course credit transfers to CSU for elective credit only.*

**CS 215**  
**PROGRAMMING WITH JAVA** 4 UNITS  
**PREREQUISITE:** CS 110.

**LECTURE:** 3 hours per week and  
**LABORATORY:** 3 hours per week.

An introduction to the network-friendly language, Java. Topics include object-oriented design, multiple platform environment, program logic structures, graphical user interface, Visual J++, Java Applet and recursion.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

**CS 220**  
**VISUAL BASIC.NET PROGRAMMING II** 3 UNITS  
**PREREQUISITE:** CS 120.

**LECTURE:** 2 hours per week and  
**LABORATORY:** 3 hours per week.

Advanced programming using Visual Basic.NET with emphasis on software development and maintenance. Topics include object-oriented design, multiple class modules, interface and linking, windows and Internet controls, and database access.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

**CS 222**  
**SPECIAL PROBLEMS IN COMPUTER SCIENCE I** 1 UNIT

**PREREQUISITE:** CS 110.

**INDEPENDENT STUDY:** 3 hours per week.

Assigned problems involving computer laboratory work for selected students who are interested in furthering their knowledge of computer science on an independent study basis. Students are required to devote three hours per week to their project throughout the semester. Prior to registration, a contract must be prepared.

See instructor for details.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

*Limited transfer to UC; credit determined after transfer to UC.*

**CS 265**  
**DATA STRUCTURES** 3 UNITS  
**PREREQUISITE:** CS 190.

**LECTURE:** 2 hours per week and  
**LABORATORY:** 3 hours per week.

An introduction to data structures such as linked lists, stacks, queues and trees. Topics include algorithm development, storage allocation, data organization, information retrieval system software and language support features. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

*CAN (California Articulation Number): CSCI 24*

**COOPERATIVE**  
**WORK EXPERIENCE**  
See WORK EXPERIENCE

## CORRECTIONS

DIVISION:	Criminal Justice
ADMINISTRATIVE DEAN:	Gloria M. Fisher, J.D.
DEPARTMENT HEAD:	Frank Peterson, J.D. Liberal Arts 124 (909) 384-8604
DIVISION SECRETARY:	Sharen Chavira
DIVISION OFFICE:	Planetarium, 2nd Floor (909) 384-4431
LIAISON COUNSELOR:	Joyce Smith, M.A. (909) 384-4404

Core competencies emphasized by courses in this department:

- Read and retain information.
- Write clearly.
- Speak clearly.
- Employ vocabulary of the subject studied.
- Evaluate authority and bias of information.
- Locate, evaluate and select evidence to support or discredit an argument.
- Apply learned knowledge to new situations.
- Accept responsibility for own actions.
- Demonstrate respect for a diversity of ideas and the rights of others.
- Exhibit personal, professional and academic honesty.



- Recognize own biases and values.
- Develop time management skills.
- Set goals for educational, personal and professional development.
- Demonstrate etiquette in face-to-face and written interactions.
- Work effectively in group settings.
- Utilize conflict resolution skills.
- Demonstrate knowledge of and respect for other cultures.

## **COURSES OFFERED BY THE DEPARTMENT OF CORRECTIONS:**

*The Corrections courses listed may not be offered every semester due to instructor availability. Please refer to the college semester schedule for class offerings.*

### **CORREC 101 INTRODUCTION TO CORRECTIONS 3 UNITS PREREQUISITE: None. LECTURE: 3 hours per week.**

This course will focus on the legal issues, probation and parole, specific laws and general operation of correctional institutions. The relationship between historical trends of adult and juvenile corrections and other components of the judicial system will also be examined.

*Associate Degree Applicable  
Course credit transfers to CSU.*

### **CORREC 102 CORRECTIONAL INTERVIEWING AND COUNSELING 3 UNITS**

**PREREQUISITE: None.  
LECTURE: 3 hours per week.**

This course is an overview of the techniques in counseling and interviewing available to practitioners in corrections. The student will learn the use of appropriate techniques and theories in confidence building which may be used by the correctional employee in client interviews and counseling. This is a basic course for students planning to enter or are already employed within the correctional science field.

*Associate Degree Applicable  
Course credit transfers to CSU.*

### **CORREC 104 CONTROL AND SUPERVISION IN CORRECTIONS 3 UNITS**

**PREREQUISITE: None.  
LECTURE: 3 hours per week.**

This course will emphasize local, state and federal institutions and the role played by the offender and the correctional worker. Topics will include inmate subculture, violence and effects of crowding on inmates and staff, coping techniques for a correctional officer in a hostile prison environment.

*Associate Degree Applicable  
Course credit transfers to CSU.*

### **CORREC 105 LEGAL ASPECTS OF CORRECTIONS 3 UNITS PREREQUISITE: None.**

**LECTURE: 3 hours per week.**

This course provides students with an awareness of the historical framework, concepts and precedents that guide correctional practice. Course material will broaden the individual's perspective of the corrections environment, the civil rights of prisoners and responsibilities and liabilities of corrections officials.

*Associate Degree Applicable  
Course credit transfers to CSU.*

## **CRIMINAL JUSTICE (see also POLICE SCIENCE)**

DIVISION:	Criminal Justice
ADMINISTRATIVE DEAN:	Gloria Fisher, J.D.
DIVISION SECRETARY:	Sharen Chavira
CAMPUS OFFICE:	Planetarium, 2nd Floor (909) 384-4431
GLEN HELEN OFFICE:	Sheriff's Training Center (909) 473-2695
LIAISON COUNSELOR:	Joyce Smith, M.A. (909) 384-4404

The Criminal Justice Department of classes are designed to meet the needs and interests of the general public, including individuals interested in law enforcement or related careers. Specialized training is available for persons interested in becoming a Basic Dispatcher or Forensic Specialist (Crime Scene Investigator).

Core competencies emphasized by courses in this department:

- Read and retain information.
- Speak clearly.
- Employ vocabulary of the subject studied.
- Demonstrate active listening skills.
- Evaluate authority and bias of information.
- Apply learned knowledge to new situations.
- Accept responsibility for own actions.
- Demonstrate respect for a diversity of ideas and the rights of others.
- Exhibit personal, professional and academic honesty.
- Display behavior consistent with ethical standards within a discipline.
- Apply lessons from the past to ethical issues faced in the present.
- Evaluate own ethical beliefs in relationship to moral dilemmas.
- Assume civic, political or social responsibilities.
- Recognize own strengths and weaknesses.
- Recognize own biases and values.
- Recognize own learning style. Give and receive constructive feedback.
- Develop time management skills.
- Set goals for educational, personal and professional development.
- Set goals to create balance in personal and professional life.

- Demonstrate etiquette in face-to-face and written interactions.
- Work effectively in group settings.
- Utilize conflict resolution skills.
- Demonstrate knowledge of and respect for other cultures.
- Demonstrate knowledge of and respect for one's own culture.

*The Criminal Justice courses listed may not be offered every semester due to instructor availability. Please refer to the college semester schedule of class offerings.*

### CRIME SCENE INVESTIGATION

This certificate is designed for persons considering a career in Forensic Sciences or Criminalistics. Covering critical components of Crime Scene Investigation (CSI), collection of evidence, courtroom testimony and presentation, forensic anthropology, entomology and odontology.

<b>REQUIRED COURES:</b>	<b>UNITS</b>
CRMJUS 086 Introduction to Crime Scene Investigation	2
CRMJUS 087 Intermediate Crime Scene Investigation	2
CRMJUS 088 Advanced Crime Scene Investigation	2
ADJUS 103 Concepts of Criminal Law	3
ADJUS 104 Legal Aspects of Evidence	3

**Two (2) units of electives chosen from the following list:**

CRMJUS 089 Forensic Photography	2
CRMJUS 090 Bloodstain Pattern Analysis	2
<b>TOTAL UNITS:</b>	<b>14</b>

### COURSES OFFERED BY THE DEPARTMENT OF CRIMINAL JUSTICE:

**CRMJUS 009**  
**VERBAL JUDO** **.25 UNIT**  
**PREREQUISITE: None.**

**LABORATORY: 8 hours per semester.**

This course provides a thorough overview that will enable students to apply the information they will learn about the philosophy of verbal judo. Introduces the proper procedures for using words as tool not weapons. Students will receive instruction on how to look creatively at conflict and use specific strategies and tactics to find peaceful resolutions.

*Associate Degree Applicable*

**CRMJUS 015**  
**CAMPUS SECURITY** **1.50 UNITS**  
**PREREQUISITE: None.**

**LECTURE: 24 hours per semester.**

This course is directed toward the training need of campus security personnel employed in elementary schools, secondary schools and community colleges. Topics include: laws impacting school campuses; working with law enforcement personnel; tactical communications; school violence; gangs and disaster/emergency preparedness.

*Associate Degree Applicable*

**CRMJUS 016**  
**SCHOOL POLICE OFFICER** **2 UNITS**  
**PREREQUISITE: None.**

**LECTURE: 32 hours per semester.**

This course is directed towards the training needs of the peace officers employed in elementary schools, secondary schools and community colleges. A school police course, which meets the requirements of SB1627 and Commission of Peace Officer Standards and Training (P.O.S.T.). Topics include: laws impacting school campuses; community relations; tactical communications; sexual harassment; violence/gangs; facility protection; disasters/ emergencies.

*Associate Degree Applicable*

**CRMJUS 018**  
**COMMUNITY ORIENTED POLICING** **1.50 UNITS**  
**PREREQUISITE: None.**

**LECTURE: 24 hours per semester.**

This course is intended to assist and define efficiency and equity as they pertain to community-oriented policing. An emphasis on analyzing the importance and use of a community assessment.

*Associate Degree Applicable*

**CRMJUS 020**  
**WORKPLACE VIOLENCE** **.50 UNIT**  
**PREREQUISITE: None.**

**LECTURE: 6 hours per semester and**  
**LABORATORY: 2 hours per semester.**

This course is designed for the employee, employer, business owner or police officer who may become involved in a workplace violence incident. Students will learn the definition of workplace violence, will identify individual and organizational factors contributing to workplace violence, will learn prevention and intervention techniques, and will be introduced to the concepts of security analysis/threat assessment.

*Associate Degree Applicable*

**CRMJUS 025**  
**PUBLIC SAFETY INTERNSHIP ACADEMY MODULE 1A** **1.75 UNITS**

**PREREQUISITE: None.**

**LECTURE: 18 hours per semester and**  
**LABORATORY: 31 hours per semester.**

This course is designed to develop student's awareness of the Public Safety field, which includes law enforcement, corrections and fire safety. It is the first course in a series of eight to be completed by students who have a desire to pursue a career in public safety. Content covered in this course includes Professional Orientation, Ethics, Lifetime Fitness, Report Writing, Computer Applications, Weaponless Defense, Fire Conditions and Emergency Vehicle Operation Center Orientation.

*Associate Degree Applicable*

**CRMJUS 026**  
**PUBLIC SAFETY INTERNSHIP ACADEMY MODULE 1B**  
**2.75 UNITS**

**PREREQUISITE: CRMJUS 025.**  
**LECTURE: 38 hours per semester and**  
**LABORATORY: 25 hours per semester.**

This course is designed to develop students' awareness of the Public Safety field, which includes law enforcement, corrections and fire safety. It is the second course in a series of eight to be completed by students who have a desire to pursue a career in public safety. Content covered in this course includes Report Writing, Cultural Awareness, Choices/Self-Esteem, Gangs, Animal/Insect Danger, Patrol Procedures, Tactical Communications, Support Units (K9/Horse/Aviation) and Glen Helen Rehabilitation Center Orientation. **LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**

*Associate Degree Applicable*

**CRMJUS 027**  
**PUBLIC SAFETY INTERNSHIP ACADEMY MODULE 2A**  
**2.25 UNITS**

**PREREQUISITE: CRMJUS 026.**  
**LECTURE: 27 hours per semester and**  
**LABORATORY: 22 hours per semester.**

This course is designed to develop students' awareness of the Public Safety field, which includes law enforcement, corrections and fire safety. It is the third course in a series of eight to be completed by students who have a desire to pursue a career in public safety. Content covered in this course includes Professional Orientation, Report Writing, Traffic Control, Law Enforcement Math, Tactical Communications, Emergency Vehicle Operations Center Simulator, Administration of Justice, Railroad and Problem Oriented Policing. **LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**

*Associate Degree Applicable*

**CRMJUS 028**  
**PUBLIC SAFETY INTERNSHIP ACADEMY MODULE 2B**  
**3 UNITS**

**PREREQUISITE: CRMJUS 027.**  
**LECTURE: 40.5 hours per semester and**  
**LABORATORY: 22.5 hours per semester.**

This course is designed to develop students' awareness of the Public Safety field, which includes law enforcement, corrections and fire safety. It is the fourth course in a series of eight to be completed by students who have a desire to pursue a career in public safety. Content covered in this course includes Report Writing, Vehicle Stops, Weaponless Defense, Narcotics, Lifetime Fitness, Sign Language, Blood Borne Pathogens, Goals, Counseling Team and Support Units (K-9/Horse/Aviation). **LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**

*Associate Degree Applicable*

**CRMJUS 031**  
**PUBLIC SAFETY INTERNSHIP ACADEMY MODULE 4A**  
**4.75 UNITS**

**PREREQUISITE: CRMJUS 030.**  
**LECTURE: 62 hours per semester and**  
**LABORATORY: 36 hours per semester.**

This course is designed to develop students' awareness of the Public Safety field, which includes law enforcement, corrections and fire safety. It is the seventh course in a series of eight to be completed by students who have a desire to pursue a career in public safety. Content covered in this course includes Weaponless Defense, Report Writing, Cultural Awareness, Choices/Self-Esteem, Crimes Against Persons, Firearm Training, Fire Rescue, Cardiopulmonary Resuscitation (CPR), First Aid and Gangs. **LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**

*Associate Degree Applicable*

**CRMJUS 032**  
**PUBLIC SAFETY INTERNSHIP ACADEMY MODULE 4B**  
**5.75 UNITS**

**PREREQUISITE: CRMJUS 031.**  
**LECTURE: 76 hours per semester and**  
**LABORATORY: 50 hours per semester.**

This course is designed to develop students' awareness of the Public Safety field, which includes law enforcement, corrections and fire safety. It is the eighth course in a series of eight to be completed by students who have a desire to pursue a career in public safety. Content covered in this course includes Report Writing, Scientific Investigations, Search and Seizure, Weaponless Defense, Driver Awareness, Firearm Training, Cultural Awareness, Chemical Agents, Water Safety, Tactical Communications, Aviation/Communications and Court Demeanor. **LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**

*Associate Degree Applicable*

**CRMJUS 036**  
**BASIC INVESTIGATIVE TRACKING** .50 UNIT  
**PREREQUISITE: None.**

**LECTURE: 8 hours per semester and**  
**LABORATORY: 8 hours per semester.**

Covers the basic tracking techniques used by law enforcement officers to apprehend suspects or to track lost children or adults. Topics include: track sketch; track preservation and processing; vehicle tracks; suspect interviews; preparation for testifying in court.

*Associate Degree Applicable*

**CRMJUS 040**  
**CITIZENS' ORIENTATION TO LAW ENFORCEMENT**  
**FUNCTIONS** 1.75 UNITS  
**PREREQUISITE: None.**

**LECTURE: 26 hours per semester and**  
**LABORATORY: 13 hours per semester.**

This course is designed to inform the public of the functions, organizational structure, and daily operations of a Sheriff's department. Students will visit the following divisions: aviation, basic academy, county jail, crime lab, firing range, homicide, SWAT and narcotics.

*Associate Degree Applicable*

**CRMJUS 041**  
**CRIME PREVENTION** .50 UNIT  
**PREREQUISITE:** CRMJUS 058.  
**LECTURE:** 8 hours per semester.  
A review of crime prevention strategies including police/citizen interaction, methods of opportunity-reduction, and the use of property inventories. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**  
*Associate Degree Applicable*

**CRMJUS 042**  
**BUSINESS ACADEMY** 1.50 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 22 hours per semester and  
**LABORATORY:** 11 hours per semester.  
This course is designed to inform business owners of rules, regulations and practices of a sheriff's department. During this course, students will tour and learn about different divisions of the department. Students will visit the following divisions: aviation, basic academy, crime lab, and firing range. Special emphasis will be placed upon gang and narcotic awareness and crime prevention principles.  
*Associate Degree Applicable*

**CRMJUS 043**  
**RAILROAD CROSSING** .25 UNIT  
**PREREQUISITE:** None.  
**LECTURE:** 3 hours per semester and  
**LABORATORY:** 5 hours per semester.  
This course is designed to familiarize students with railroad crossing collisions, incidents involving trespassing on railroad property and the skills needed to properly investigate a grade crossing collision.  
*Associate Degree Applicable*

**CRMJUS 044**  
**RESERVE AND VOLUNTEER COORDINATOR'S TRAINING** 1.25 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 20 hours per semester and  
**LABORATORY:** 4 hours per semester.  
Designed to assist those charged with establishing and maintaining Reserve Peace Officer or Volunteer Units within law enforcement agencies with the information they need to succeed. Topics include: establishing agency policy and procedures; conducting background investigations; developing recruiting methods, managing, training and disciplining reserve officers and volunteers; liability issues.  
*Associate Degree Applicable*

**CRMJUS 046**  
**CITIZENS ON PATROL** 1.75 UNITS  
**PREREQUISITE:** PE 231.  
**LECTURE:** 24 hours per semester and  
**LABORATORY:** 12 hours per semester.  
This course is designed to inform the public of rules, regulations, and practices of a sheriff's department Citizen's on Patrol unit. Students will learn the necessary skills to perform as a citizen on patrol for the sheriff's department. Skills include proper radio procedure, proper vehicle operations, public contact, telephone demeanor, and clerical/administrative duties. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**  
*Associate Degree Applicable*

**CRMJUS 055**  
**PREPARATION FOR POLICE ACADEMY** 3.5 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week and  
**LABORATORY:** 1.5 hours per week.  
This course is designed to familiarize students with the requirements, scope, and commitments of the Police Academy Training Program. Includes assessing potential academy recruits for job related skills, such as physical endurance, report-writing, and comprehension of penal codes. Students who successfully complete this course are eligible for admission into the Police Academy Training Program.  
*Associate Degree Applicable*

**CRMJUS 058**  
**PENAL CODE 832 COURSE** 3.50 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 50 hours per semester and  
**LABORATORY:** 26 hours per semester.  
These functions include the history, professionalism, and ethics of law enforcement, the criminal justice system, community relations, criminal law, laws of arrest, search and seizure, presentation of evidence, report writing, use of force, preliminary investigation, arrest and control, firearms, and crimes against the justice system. **MUST MEET STATE SCREENING REQUIREMENTS.**  
*Associate Degree Applicable*

**CRMJUS 059**  
**BASIC LAW ENFORCEMENT ACADEMY-LEVEL I OF THE MODULAR FORMAT** 18.50 UNITS  
**PREREQUISITE:** CRMJUS 060.  
**LECTURE:** 225 Hours per semester and  
**LABORATORY:** 215 Hours per semester.  
This course is the third module in the Regular Basic Course Modular Format Training sequence. The intensive and disciplined instruction is designed to meet the minimum requirements of a full time peace officer or Level I reserve peace officer in the state of California. The course includes professional orientation, police-community relations, laws of arrest, evidence and search and seizure, vehicle and radio procedures, administration of justice, narcotics, gangs, patrol procedures, firearms, vehicle stops, domestic violence, defensive tactics, physical training, criminal investigations, traffic investigations, practical scenarios and testing. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES AND STATE SCREENING REQUIREMENTS.**  
*Associate Degree Applicable*

**CRMJUS 060**  
**RESERVE LEVEL II OFFICER** 14.25 UNITS  
**PREREQUISITE:** CRMJUS 058.  
**LECTURE:** 203 hours per semester and  
**LABORATORY:** 73 hours per semester.  
This course will familiarize the Level II Reserve officers with training in various law enforcement functions. These law enforcement functions include the prevention and detection of crime and the general enforcement of the laws of this state while under the immediate supervision of a peace officer that has completed the basic training course for deputy sheriffs and police officers. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**  
*Associate Degree Applicable*

**CRMJUS 061**  
**RESERVE LEVEL III OFFICER** 6 UNITS  
**PREREQUISITE: CRMJUS 058.**

**LECTURE: 64 hours per semester and**  
**LABORATORY: 93 hours per semester.**

This course will familiarize the Level III Reserve officers with training in various law enforcement functions. These law enforcement functions include law enforcement history, criminal justice system, tactical communication, crimes against persons and property, report writing, vehicle operations and pullover, traffic enforcement, custody, weaponless defense, first aid/cardiopulmonary resuscitation, firearms/chemical agents, information systems, and cultural awareness. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**

*Associate Degree Applicable*

**CRMJUS 065**  
**SIGN LANGUAGE FOR EMERGENCY PERSONNEL** 1 UNIT

**PREREQUISITE: CRMJUS 058.**

**LECTURE: 12 hours per semester and**  
**LABORATORY: 12 hours per semester.**

This course trains emergency personnel to interact with deaf victims, witnesses and suspects. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**

*Associate Degree Applicable*

**CRMJUS 066**  
**INSTRUCTOR DEVELOPMENT** .75 UNIT  
**PREREQUISITE: None.**

**LECTURE: 8 hours per semester and**  
**LABORATORY: 16 hours per semester.**

This course will enable police instructors to improve their public speaking skills, understand adult learning theories, write learning objectives and lesson plans, use various methods of instruction effectively, and understand techniques of testing and remediation.

*Associate Degree Applicable*

**CRMJUS 069**  
**LIFETIME FITNESS AND COPING WITH STRESS** .50 UNIT

**PREREQUISITE: CRMJUS 058.**

**LECTURE: 8 hours per semester.**

Designed to assist officers in developing a personal fitness program, this course includes strategies to permanently control body fat, such as routine exercise and diet modification, and strategies for identifying and managing stress. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**

*Associate Degree Applicable*

**CRMJUS 070**  
**BASIC DISPATCHER'S COURSE** 6 UNITS  
**PREREQUISITE: None.**

**LECTURE: 92 hours per semester and**  
**LABORATORY: 30 hours per semester.**

Training in the terminology, codes, and skills required for employment as a public safety dispatcher. Satisfies Peace Officers Standards and Training (POST) requirements for basic training of Public Safety Dispatchers.

*Associate Degree Applicable*

**CRMJUS 071**  
**DISPATCHERS AND CRITICAL INCIDENTS** 2.25 UNITS

**PREREQUISITE: CRMJUS 070.**

**LECTURE: 36 hours per semester and**  
**LABORATORY: 4 hours per semester.**

This course is devoted to the experienced dispatcher's role in critical incidents and officer survival. Course content will include: civil liabilities, communications under stress, physical disablers and psychological wellness, courtroom demeanor, sexual harassment, domestic violence, missing persons, hostage barricaded subject and suicidal subject situations, overview of telephone, radio and 800 megahertz systems. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.** Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

*Associate Degree Applicable*

**CRMJUS 072x20**  
**CIVIL UPDATE FOR DISPATCHERS** .50 UNIT  
**PREREQUISITE: CRMJUS 070.**

**LECTURE: 6 hours per semester and**  
**LABORATORY: 2 hours per semester.**

Does it seem like everybody wants to sue a police agency? Get updated information concerning civil liability issues related to dispatching, learn courtroom survival techniques in the event of a lawsuit, and get the latest information concerning court orders and civil disputes.

**REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**

This course may be taken twenty times.

*Associate Degree Applicable*

**CRMJUS 073**  
**DISASTER PREPAREDNESS FOR DISPATCHERS** .50 UNIT

**PREREQUISITE: CRMJUS 070.**

**LECTURE: 6 hours per semester and**  
**LABORATORY: 2 hours per semester.**

The "big one" hits Southern California. Are you prepared to deal with the effects of this disaster during and immediately after? Learn what to expect when it hits and how to prepare, at home or at a dispatch center. Topics include extrication of employees, law enforcement response, fire and medical response, and how to protect your family. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**

*Associate Degree Applicable*

**CRMJUS 074x20**  
**LEGAL UPDATE FOR DISPATCHERS** .25 UNIT  
**PREREQUISITE: CRMJUS 070.**

**LECTURE: 5 hours per semester and**  
**LABORATORY: 3 hours per semester.**

This class provides the student with an understanding of the legal requirements for missing persons and domestic violence reports, and provides the student with the current case law and statutory law information needed to completely perform public safety dispatching duties. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**

This course may be taken twenty times.

*Associate Degree Applicable*

**CRMJUS 075**  
**CRITICAL INCIDENT FOR DISPATCHERS .25 UNIT**  
**PREREQUISITE: CRMJUS 070.**

**LECTURE: 5 hours per semester and**  
**LABORATORY: 3 hours per semester.**

Scenarios and basic skills will provide students with some new ideas and approaches to the everyday incidents. Students will have an understanding of what to tell the public in their inquiries, and where to get more information. **REGISTRATION IS LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**  
*Associate Degree Applicable*

**CRMJUS 076**  
**STRESS MANAGEMENT FOR DISPATCHERS .50 UNIT**

**PREREQUISITE: CRMJUS 070.**  
**LECTURE: 6 hours per semester and**  
**LABORATORY: 2 hours per semester.**

This course is designed to identify the primary causes of chronic stress associated with public safety dispatching. Some sources of stress associated with dispatching will include multiple requests for priority traffic and managing large-scale critical incidents. Scenarios and basic skills will be provided to him/her with some new ideas and approaches to combat the sources of stress on the job. **LIMITED TO STUDENTS WHO HAVE SUCCESSFULLY COMPLETED PROGRAM PREREQUISITES.**  
*Associate Degree Applicable*

**CRMJUS 086**  
**INTRODUCTION TO CRIME SCENE INVESTIGATION 2 UNITS**

**PREREQUISITE: None.**  
**LECTURE: 24 hours per semester and**  
**LABORATORY: 30 hours per semester.**

This course is designed to be an introductory level course for those persons considering a career in Forensic Sciences or Criminalistics. Lecture topics include securing a crime scene, identification and collection of evidence at crime scenes, processing evidence and crime scenes for latent fingerprints, basic fingerprint pattern recognition, basic crime scene photography, documentation of the crime scene and the examinations performed, a discussion of common mistakes and how to avoid making them and an introduction to courtroom presentation and testimony.  
*Associate Degree Applicable*

**CRMJUS 087**  
**INTERMEDIATE CRIME SCENE INVESTIGATION 2 UNITS**

**PREREQUISITE: CRMJUS 086.**  
**LECTURE: 24 hours per semester and**  
**LABORATORY: 24 hours per semester.**

This course is designed to be an intermediate level course for those persons considering a career in Forensic Sciences or Criminalistics. Lecture topics include reviewing the critical components of the Basic CSI class, identification and collection of evidence at violent crime scenes, processing evidence and crime scenes for latent prints using advanced techniques, intermediate crime scene photography, documentation of the crime scene and the examinations performed, a discussion of common mistakes and how to avoid making them and courtroom presentation and testimony.  
*Associate Degree Applicable*

**CRMJUS 088**  
**ADVANCED CRIME SCENE INVESTIGATION 2 UNITS**

**PREREQUISITE: CRMJUS 087.**  
**LECTURE: 24 hours per semester and**  
**LABORATORY: 30 hours per semester.**

This course is designed to be an advanced level course for those persons considering a career in Forensic Sciences or Criminalistics. Lecture topics include reviewing the critical components of the basic and second level CSI classes, identification and collection of evidence at crime scenes involving death (homicides, suicide, accidental death and homicides that involve additional violence, such as sexual assault), processing of the deceased for physical evidence, latent fingerprints and other clues relating to the identity of the assailant, shooting reconstruction and gravesite excavation. This course will also discuss other specialties available to the death investigator, such as Forensic Anthropology, Entomology and Odontology.  
*Associate Degree Applicable*

**CRMJUS 089**  
**FORENSIC PHOTOGRAPHY 2 UNITS**

**PREREQUISITE: None.**  
**LECTURE: 24 hours per semester and**  
**LABORATORY: 30 hours per semester.**

This course is designed as an overall photography class with an emphasis on techniques needed for crime scene and evidence documentation. This course will discuss different types of cameras used for crime scene documentation, their advantages and disadvantages and special applications. This course will cover manual camera operations necessary for close-up, nighttime and other specialty photographs.  
*Associate Degree Applicable*

**CRMJUS 090**  
**BLOODSTAIN PATTERN ANALYSIS 2 UNITS**  
**PREREQUISITES: CRMJUS 088 and MATH 093 or**  
**MATH 103 or equivalent.**

**LECTURE: 24 hours per semester and**  
**LABORATORY: 30 hours per semester.**

This course is designed to be an advanced level course for those persons considering a career in Forensic Sciences or Criminalistics. Lecture topics include the physical properties of blood, the dynamics of blood in flight, mathematical principles relating to bloodstain pattern interpretation and what this information can tell you about the crime that took place. Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

*Associate Degree Applicable*

## DANCE

DIVISION: Humanities  
DIVISION DEAN: Marjorie Price, M.A., M.Ed.  
DEPARTMENT HEAD: Leticia Hector, M.A.  
Liberal Arts 239  
(909) 384-8618  
OTHER FACULTY: Denise Dale Jacobs, M.F.A.  
DIVISION SECRETARIES: Kelly Adcock  
(909) 384-8625  
Cheryl Benner  
(909) 384-8633  
DIVISION OFFICE: North Hall 236  
(909) 384-4445  
LIAISON COUNSELOR: Juan Zepeda, M.S.  
(909) 384-4404

Core competencies emphasized by courses in this department:

- Employ vocabulary of the subject studied.
- Give and receive constructive feedback.
- Evaluate diverse artistic works.
- Demonstrate creative thought through original expression.

### COURSES OFFERED BY THE DEPARTMENT OF DANCE:

#### **DANCE 101x2 BEGINNING MODERN DANCE 2 UNITS**

**PREREQUISITE: None.**

**LABORATORY: 6 hours per week.**

A comprehensive survey of the beginning techniques of Modern Dance with a focus on vocabulary, placement and alignment, strength and flexibility exercises, and simple combinations of locomotor movement. This course may be taken twice.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

#### **DANCE 102x4 INTERMEDIATE MODERN DANCE 2 UNITS**

**PREREQUISITE: DANCE 101x2.**

**LABORATORY: 6 hours per week.**

A progressive study of Modern Dance including strengthening exercises, center work on balance and control, rhythmic awareness, and combinations of increasing speed, length, and complexity. This course may be taken four times.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

#### **DANCE 103x2 BALLET 2 UNITS**

**PREREQUISITE: None.**

**LABORATORY: 6 hours per week.**

A progressive study of Ballet including vocabulary, placement and alignment, strength and flexibility exercises, work on balance and control, and combinations of increasing speed, length, and complexity. This course may be taken two times.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

#### **DANCE 105x2 BEGINNING JAZZ DANCE 2 UNITS**

**PREREQUISITE: None.**

**LABORATORY: 6 hours per week.**

A comprehensive survey of the beginning techniques of Jazz Dance with a focus on vocabulary, placement and alignment, strength and flexibility exercises, and simple combinations of locomotor movement. This course may be taken two times.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

#### **DANCE 106x4 INTERMEDIATE JAZZ DANCE 2 UNITS**

**PREREQUISITE: DANCE 105x2.**

**LABORATORY: 6 hours per week.**

A progressive study of Jazz Dance including strengthening exercises, work on balance and control, rhythmic awareness, and combinations of increasing speed, length, and complexity. This course may be taken four times.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

#### **DANCE 107x2 TAP DANCE 2 UNITS**

**PREREQUISITE: None.**

**LABORATORY: 6 hours per week.**

A comprehensive study and practice of tap as presented through physical strengthening, rhythmic awareness, and the learning of tap combinations and routines, vocabulary, and stylistic concerns. This course may be taken two times.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

#### **DANCE 114x4 DANCE REHEARSAL AND PERFORMANCE 4 UNITS**

**PREREQUISITE: None.**

**LECTURE: 2 hours per week and**

**LABORATORY: 6 hours per week.**

Instruction and supervision of rehearsal and performance of various dance productions. **ENROLLMENT IN THIS CLASS IS CONTINGENT WITH AN AUDITION FOR A CURRENT DANCE PRODUCTION.** This course may be taken four times.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

#### **DANCE 200 DANCE HISTORY AND APPRECIATION 3 UNITS**

**PREREQUISITE: None.**

**LECTURE: 3 hours per week.**

A comprehensive survey of dance from primitive time through the 20th century. Emphasis will be placed on historical perspectives revealing dance as an emerging art form. Course material also includes the relation of dance to religion and myth, as a reflection of cultural and social attitudes and mores, and its relation to other art forms.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

**DANCE 203**  
**CHOREOGRAPHY** **3 UNITS**  
**PREREQUISITE: None.**  
**LECTURE: 2 hours per week and**  
**LABORATORY: 2 hours per week.**

An introduction and analysis of the elements of dance composition. A comprehensive survey of theories, techniques, and historical perspectives of dance composition, as well as the practical application of these elements through the actual physical activity of creating and teaching dance compositions.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

**DANCE 206x4**  
**DANCE PRODUCTION** **4 UNITS**  
**PREREQUISITE: None.**  
**LECTURE: 2 hours per week and**  
**LABORATORY: 6 hours per week.**

Instruction and analysis of all aspects of dance production including organizing a dance production; publicity and marketing; budget; theatrical and dance lighting; set design; costumes and makeup; and instruction in elements of physical theater, such as stage terminology, stage directions, and roles of theatre personnel. This course may be taken four times.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

## DIESEL

DIVISION: Applied Technology & Transportation  
 DIVISION DEAN: Thomas Bauman, M.S., P.E.  
 DIRECTOR: Kevin Anderson, M.B.A.  
 FACULTY: Daniel Hook, A.S.  
 DEPARTMENT SECRETARY: Amanda Moody  
 (909) 382-4079  
 DEPARTMENT OFFICE: 264 S. Leland Norton Way  
 Suite A120, San Bernardino  
 LIAISON COUNSELOR: Jennifer Mendoza, M.S.  
 (909) 384-4404

Core competencies emphasized by courses in this department:

- Employ vocabulary of the subject studied.
- Find and interpret information.
- Apply learned knowledge to new situations.
- Accept responsibility for own actions.
- Exhibit personal, professional and academic honesty.
- Work effectively in group settings.
- Utilize conflict resolution skills.

### HEAVY-DUTY DIESEL TECHNICIAN CERTIFICATE

This certificate is designed to prepare students for entry-level positions repairing and maintaining diesel engines in trucks, buses, locomotives, heavy vehicles, and mobile heavy-duty equipment. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

REQUIRED COURSES:	UNITS
CIT 101 Introduction to Computer Literacy	3
DIESEL 021 Diesel Engine - Heavy Duty	4
DIESEL 022 Heavy-Duty Truck Brakes	2
DIESEL 023 Heavy-Duty Truck Suspension & Steering	2
DIESEL 024 Advanced Heavy-Duty Diesel Engines	4
DIESEL 028 Heavy-Duty Truck Preventive Maintenance Service	4
DIESEL 030 Advanced Heavy-Duty Truck Systems	4
TECALC 950 Shop Calculations	3
WELD 123 Oxy-Acetylene Welding	3
WELD 077x4 Continuous Wire Welding	1
<b>TOTAL UNITS:</b>	<b>30</b>

### COURSES OFFERED BY THE DEPARTMENT OF DIESEL:

**DIESEL 020**  
**DIESEL ENGINES – LIGHT DUTY** **4 UNITS**  
**PREREQUISITE: None.**  
**LECTURE: 3 hours per week and**  
**LABORATORY: 3 hours per week.**

Theory and practical shop work in the repair, operation and maintenance of light duty automotive diesel engines and fuel injection systems. Course includes general trouble-shooting and diagnostic testing. This course may be used in preparation for the Automotive Service Excellence (ASE) National Test.

*Associate Degree Applicable*

**DIESEL 021**  
**DIESEL ENGINES-HEAVY DUTY** **4 UNITS**  
**PREREQUISITE: None.**  
**LECTURE: 3 hours per week and**  
**LABORATORY: 3 hours per week.**

Theory and practical shop work in repair, operation, and maintenance of heavy-duty industrial diesel engines and fuel injection systems. Course includes general trouble-shooting and diagnostic testing. This course may be used in preparation for the automotive Service Excellence (ASE) National Test.

*Associate Degree Applicable*

**DIESEL 022**  
**HEAVY-DUTY TRUCK BRAKES** **2 UNITS**  
**PREREQUISITE: None.**  
**LECTURE: 1.5 hours per week and**  
**LABORATORY: 1.5 hours per week.**

Theory and practical shop work in the construction and repair of heavy-duty truck brake systems and components. Includes principles of hydraulic and pneumatic brake systems, anti-lock, and computer controlled braking systems used in today's modern heavy-duty diesel trucks and semi-tractors.

*Associate Degree Applicable*

**DIESEL 023**  
**HEAVY-DUTY TRUCK SUSPENSION AND STEERING** **2 UNITS**  
**PREREQUISITE: None.**  
**LECTURE: 1.5 hours per week and**  
**LABORATORY: 1.5 hours per week.**

Theory and practical shop work in the construction, operation, and repair of heavy-duty truck suspension and steering components. Includes principles of hydraulic and pneumatic steering and suspension systems.

*Associate Degree Applicable*



**DIESEL 024**  
**ADVANCED HEAVY-DUTY DIESEL ENGINES 4 UNITS**  
**PREREQUISITE: DIESEL 021.**

**LECTURE: 3 hours per week and**  
**LABORATORY: 3 hours per week.**

Theory and practical shop in the repair, operation and the construction of heavy duty diesel engines. Includes principles of diesel turbochargers and blowers; two and four cycle combustion systems. This course is an intermediate engine rebuild class.

*Associate Degree Applicable*

**DIESEL 025x3**  
**HEAVY-EQUIPMENT DIESEL ENGINES LABORATORY 1 UNIT**

**PREREQUISITE: DIESEL 024.**  
**LABORATORY: 3 hours per week.**

Practical shop work in the construction, operation, and repair of automotive, heavy-duty, and heavy-equipment diesel engines. Includes principles of diesel fuel injection pumps, governors, and injectors; turbo-charges and blowers; two and four-cycle combustion systems. This course may be taken three times.

*Associate Degree Applicable*

**DIESEL 026**  
**CONTROLLED DIESEL ENGINES 4 UNITS**  
**PREREQUISITE: DIESEL 024.**

**LECTURE: 3 hours per week and**  
**LABORATORY: 3 hours per week.**

Theory and practical shop work in the repair, operation, and maintenance of computer controlled diesel engines. Includes general trouble-shooting and diagnostics using assorted electronic and computerized test equipment on operable computer controlled diesel engines.

*Associate Degree Applicable*

**DIESEL 027x3**  
**MICRO-COMPUTER CONTROLLED DIESEL ENGINES LABORATORY 1 UNIT**

**PREREQUISITE: DIESEL 026.**  
**LABORATORY: 3 hours per week.**

Practical shop work in the repair, operation, and maintenance of micro-computer controlled diesel engines. Includes general troubleshooting and diagnostics using assorted electronic and computerized test equipment on operable computer controlled diesel engines. General service and overhaul of the computerized 3406E Caterpillar engines is emphasized. This course may be taken three times.

*Associate Degree Applicable*

**DIESEL 028**  
**HEAVY-DUTY TRUCK PREVENTIVE MAINTENANCE SERVICE 4 UNITS**

**PREREQUISITE: None.**  
**LECTURE: 3 hours per week and**  
**LABORATORY: 3 hours per week.**

Theory and practical shop work in maintenance and preventive maintenance service of heavy-duty trucks and semi-tractor systems. Fundamentals of truck components and systems are explained as students perform routine service tasks on a Ford semitractor truck. Course is designed to provide students the needed skills and knowledge to perform entry level labor tasks in the heavy-duty truck service industry.

*Associate Degree Applicable*

**DIESEL 030**  
**ADVANCED HEAVY-DUTY TRUCK SYSTEMS 4 UNITS**  
**PREREQUISITE: DIESEL 028.**

**LECTURE: 3 hours per week and**  
**LABORATORY: 3 hours per week.**

Advanced level theory and practical workshop in maintenance, air conditioning, ABS, computers, and operations of the heavy-duty truck and semi-tractors systems.

*Associate Degree Applicable*

**DIESEL 034**  
**INTRODUCTION TO HEAVY-DUTY COMPRESSED NATURAL GAS VEHICLE SYSTEMS 2 UNITS**  
**PREREQUISITE: DIESEL 026.**

**LECTURE: 1.5 hours per week and**  
**LABORATORY: 1.5 hours per week.**

This course provides theory and hands-on experience in the operation, service, inspection, and maintenance of compressed natural gas (CNG) systems. This course prepares students for ASE Alternate Fuels Test (F-1).

*Associate Degree Applicable*

**DIESEL 035**  
**HEAVY-DUTY VEHICLE AUTOMATIC TRANSMISSIONS 2 UNITS**

**PREREQUISITE: None**  
**LECTURE: 1.5 hours per week and**  
**LABORATORY: 1.5 hours per week.**

This course provides theory and hands on experience with heavy-duty vehicle automatic transmissions operation, construction, service and overhaul procedures. The purpose of the class is to prepare the students to successfully troubleshoot and repair heavy-duty vehicle automatic transmissions as well medium-duty vehicle automatic transmissions. Classroom topics include, but are not limited to: torque converter, power flows, vehicle interfaces, and troubleshooting. Lab work will consist of disassembly, inspection of all parts, and transmission reassembly.

## ECONOMICS

DIVISION: Business & Information Technology  
DIVISION DEAN: Margaret Ortiz, M.A.  
DEPARTMENT HEAD: Nickolas Zoumbos, M.S.  
Business 100D  
(909) 384-8912  
FACULTY: Walt Chatfield, Ph.D.  
J. D. Dulgeroff, Ph.D.  
DIVISION SECRETARY: Chris Williams  
DIVISION OFFICE: Business 101  
(909) 384-8908  
LIAISON COUNSELOR: Marco Cota, M.A.  
(909) 384-4404

Economics is concerned with the study of how people and societies produce various commodities and distribute them for consumption, now or in the future, among various persons and groups in society. As a descriptive, academic discipline, it is concerned with accurate portrayals of national economics as well as those of regions, firms, and individuals. As an analytic discipline, its tools are used to order, modify, and describe economic activity.

Training in economics, supplemented by course work in other disciplines, provide excellent preparations for particular careers in industry, government, and many professions including management, law, education, public

administration or consulting. The study of economics also provides useful intellectual training for individuals who may be uncertain about their future plans.

Students planning to transfer to a four-year institution and major in economics or related fields should consult with a counselor regarding the transfer process and lower division requirements.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Write clearly.
- Employ vocabulary of the subject studied.
- Find and interpret information.
- Locate, evaluate and select evidence to support or discredit an argument.
- Construct a persuasive argument.
- Apply learned knowledge to new situations.
- Apply principles of scientific reasoning to solve problems.
- Defend a logical hypothesis to explain observed phenomenon.

## **COURSES OFFERED BY THE DEPARTMENT OF ECONOMICS:**

**ECON 100**  
**INTRODUCTION TO ECONOMICS** 3 UNITS  
**PREREQUISITE: None.**  
**LECTURE: 3 hours per week.**

Survey of the American economy and the development, functioning and significance of economic institutions. Emphasis on economic growth, the national debt, inflation and international economic problems.

*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

**ECON 200**  
**INTRODUCTION TO MACROECONOMICS** 3 UNITS  
**PREREQUISITE: None.**  
**LECTURE: 3 hours per week.**

Introduction to macroeconomic theory and the role of fiscal and monetary policies in economics with emphasis on national economic problems.

*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*  
*Limited transfer to UC; contact a counselor for details.*  
*CAN (California Articulation Number): ECON 2*

**ECON 200H**  
**INTRODUCTION TO MACROECONOMICS – HONORS** 3 UNITS

**PREREQUISITE: None.**  
**LECTURE: 3 hours per week.**

Introduction to macroeconomic theory and the role of fiscal and monetary policies in economics with special emphasis on national economic problems. Enrollment is limited to students eligible for the Honors Program.

*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*  
*Limited transfer to UC; contact a counselor for details.*

**ECON 201**  
**PRINCIPLES OF MICROECONOMICS** 3 UNITS  
**PREREQUISITE: None.**

**LECTURE: 3 hours per week.**

Introduction to microeconomic theory including international economics, economic development, and comparative economic systems with emphasis on microeconomic problems.

*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*  
*CAN (California Articulation Number): ECON 4*

**ECON 208**  
**BUSINESS AND ECONOMICS STATISTICS** 4 UNITS  
**PREREQUISITE: MATH 095.**

**LECTURE: 4 hours per week.**

A review of statistical methods commonly used in business and economics including measures of central tendency; measures of dispersion and skewness; probability concepts and distributions; statistical inferences; parametric and non-parametric hypothesis testing; index numbers time series analysis, simple regression, and correlation analysis. This course is also offered as BUSCAL 208.

*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*  
*Limited transfer to UC; contact a counselor for details.*

**ECON 222**  
**INDEPENDENT STUDY IN ECONOMICS** 1-3 UNITS  
**PREREQUISITES: ECON 200 and ECON 201.**  
**LABORATORY: 3-9 hours per week.**

Assigned projects involving research and analysis of selected topics or directed study for students who are interested in furthering their knowledge of economics on an independent study basis. For each unit earned, students are required to devote three hours per week throughout the semester. Enrollment limited to those who meet independent study criteria. Prior to registration, a contract must be prepared. See instructor for details.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*  
*Limited transfer to UC; credit determined after transfer to UC.*

**ECON 285**  
**HONORS IN ECONOMICS** 3 UNITS  
**PREREQUISITE: ECON 200 or ECON 201.**  
**COREQUISITE: ECON 200 or ECON 201.**  
**LECTURE: 3 hours per week.**

Building on the concepts introduced in Principles of Economics (200 or 201), this class focuses on contemporary social issues including the educational, energy, and environmental impact of economic decisions, the use of computers in the field of economics, and methods for conducting research in the fields of macro and micro-economics.

*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

## EDUCATION

DIVISION: Social Science & Human Development  
DIVISION DEAN: Janice Noble, M.Ed.  
DEPARTMENT HEAD: Juliann Martin, M.A.  
North Hall 244  
(909) 384-4457  
OTHER FACULTY: Kathryn Adams, M.S.  
Kellie Barnett, M.S.  
Denise Knight, B.A.  
Susan Shimoff, M.A.  
Debra Ward, M.S.  
DIVISION SECRETARY: To Be Announced  
DIVISION OFFICE: Liberal Arts, Room 122  
(909) 384-8603  
LIAISON COUNSELOR: Mary Beth Barrios, M.S.  
(909) 384-4404

### COURSES OFFERED BY THE DEPARTMENT OF EDUCATION:

**EDU 290**  
**INTRODUCTION TO EDUCATION** **3 UNITS**  
**PREREQUISITE: CD 105.**  
**LECTURE: 3 hours per week.**

Introduction to the field of education, designed to familiarize students with philosophies of education, history of education in America, social, political and legal foundations of education, and contemporary issues in education. The course transfers to CSUSB for students, majoring in Liberal Studies/Education.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

## ELECTRICITY/ELECTRONICS/ TECHNICAL CALCULATIONS

DIVISION: Applied Technology & Transportation  
DIVISION DEAN: Thomas Bauman, M.S., P.E.  
DEPARTMENT HEAD: Edward Szumski, M.A.  
Technical 108  
(909) 384-8501  
OTHER FACULTY: Carlos Busselle, B.A.  
DIVISION SECRETARY: Patsy Martinez  
(909) 384-8902  
DIVISION OFFICE: Technical 108  
(909) 384-4451  
LIAISON COUNSELOR: Jennifer Mendoza, M.S.  
(909) 384-4404

The Electricity/Electronics curriculum is designed to provide entry-level job training in this broad and expanding field. These classes lead to trainee positions in maintenance, installation, field service, networking, and apprenticeship in the area of specialization. Students who seek a Certificate or an Associate of Science Degree in the fields of: 1) Electronics Technology, 2) Communication Engineering Technology, 3) Computer Engineering Technology, 4) Electric Power Technology, or (5) Avionics Technology, will complete a series of Electronics Technology courses common to electricity, communications, and computers and then complete the appropriate area of specialization. All classes must be completed with a grade of C or better.

Students planning to transfer to a four-year institution and major in electronics should consult with a counselor

regarding the transfer process and lower division requirements.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Employ vocabulary of the subject studied.
- Find and interpret information.

## ELECTRICITY/ELECTRONICS ASSOCIATE OF SCIENCE DEGREE

To graduate with a specialization in one of the Electricity/Electronics majors, students must complete all the requirements for the appropriate certificate with a grade of C or better plus the general breadth requirements for the Associate Degree.

### ELECTRICITY/ELECTRONICS CERTIFICATES

These certificates are designed to provide students with the fundamentals of electronics technology by offering courses common to electricity, communications and computers. This preparation can be for transfer to the university or for further study in areas of communications, computers, electricity, and aircraft electronics. It can also prepare students for entry-level positions in electronics maintenance, installation, field service, networking, and apprenticeship in the field of electronics technology. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select. Students should have normal color vision, hand/eye coordination and the ability to lift over 50 pounds.

#### 1. ELECTRONICS TECHNOLOGY (Core Courses required for all specializations)

REQUIRED COURSES:	UNITS
TECALC 087 Technical Calculations	4
ELECTR 110 Direct Current Circuit Analysis	3
ELECTR 111 Direct Current Circuit Laboratory	1
ELECTR 115 Alternating Current Circuit Analysis	3
ELECTR 116 Alternating Current Circuit Lab	1
ELECTR 155 Electronic Drawing and Assembly	3
ELECTR 230 Semiconductor Devices	3
ELECTR 235 Solid State Circuit Analysis	4
ELECTR 265 Digital Logic Design	4
ELECTR 266 Microprocessor Technology	4
ELECTR 270 Linear Integrated Circuit Analysis	4
<b>TOTAL UNITS:</b>	<b>34</b>

#### 2. COMMUNICATION ENGINEERING TECHNOLOGY

This certificate is designed to provide students with the fundamentals of electronics technology as it applies to communications engineering. The curriculum prepares students for entry-level positions in electronics communications maintenance, installation, field service, networking, and apprenticeship in the field of communications engineering technology. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

<b>Complete the REQUIRED COURSES for Electronics Technology plus -</b>	
<b>REQUIRED COURSES:</b>	<b>UNITS</b>
ELECTR 220B F.C.C. Rules and Regulations	3
ELECTR 250B Radio Transmitters, Receivers and Antennas	4
ELECTR 255B Telephone Networking	4
<b>TOTAL UNITS:</b>	<b>45</b>

### 3. COMPUTER ENGINEERING TECHNOLOGY

This certificate is designed to provide students with the fundamentals of electronics technology as it applies to computer engineering. The curriculum prepares students for entry-level positions in computer maintenance, installation, field service, networking, and apprenticeship in the field of computer engineering technology. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

<b>Complete the REQUIRED COURSES for Electronics Technology plus -</b>	
<b>REQUIRED COURSES:</b>	<b>UNITS</b>
ELEC 217B Industrial Electricity	4
ELECTR 158 Microcomputer Operation	2
ELECTR 280B Computer Operations and Maint	4
<b>TOTAL UNITS:</b>	<b>44</b>

### 4. ELECTRIC POWER TECHNOLOGY

This certificate is designed to provide students with the fundamentals of electronics technology as it applies to industrial electricity. The curriculum prepares students for entry-level positions in electrical maintenance, installation, field service, networking, and apprenticeship in the field of electronic power technology. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

<b>Complete the REQUIRED COURSES for Electronics Technology plus -</b>	
<b>REQUIRED COURSES:</b>	<b>UNITS</b>
ELEC 216B Introduction to Industrial Electricity	4
ELEC 217B Industrial Electricity	4
ELEC 218B Controlling Industrial Electricity	4
<b>TOTAL UNITS:</b>	<b>46</b>

### 5. AVIONICS TECHNOLOGY

This certificate is designed to provide students with the fundamentals of electronics technology as it applies to avionics. The curriculum prepares students for entry-level positions in aircraft electricity, maintenance, installation, field service, networking, and apprenticeship in the field of avionics technology. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

<b>Complete the REQUIRED COURSES for Electronics Technology plus -</b>	
AERO 121* Aviation Fundamentals	3
AERO 140C Instrument Ground School & Flight Sim.	4
ELECTR 220B FCC Rules and Regulations	3
ELECTR 250A Radio Transmitters, Receivers, & Antennas	4
ELECTR 257B Navigation & Communication Syst	4

**TOTAL UNITS:** 52

\* AERO 102 & 103 can be substituted for AERO 121 & 140C

## COURSES OFFERED BY THE DEPARTMENT OF ELECTRICITY/ELECTRONICS:

**ELEC 012**  
**UTILITY POLE CLIMBING: OSPCTP** 3.25 UNITS

**PREREQUISITE: None.**

**LECTURE: 2 hours per week and**  
**LABORATORY: 4 hours per week.**

The study of the procedures, safety practices and equipment used in telephone and utility pole climbing. Subjects include: knots, handlines, cable repair, pole climbing, blueprints, cable placement, and pole handling. **DOCTOR'S VERIFICATION THAT THERE IS AN ABSENCE OF FEAR OF HEIGHTS, HEART TROUBLE, DIZZINESS, FAINTING SPELLS, HIGH BLOOD PRESSURE, BACK TROUBLE, ASTHMA, EPILEPSY; OR A PHYSICIAN'S STATEMENT THAT PRE-EXISTING CONDITIONS WILL NOT AFFECT THE STUDENT'S ABILITY TO SAFELY COMPLETE THIS COURSE IS REQUIRED.** Note: It is not anticipated that this course will be offered during the current academic year. Please contact the Division Office for more information.

*Associate Degree Applicable*

**ELEC 216B**  
**INTRODUCTION TO INDUSTRIAL ELECTRICITY** 4 UNITS

**PREREQUISITE: None.**

**LECTURE: 3 hours per week and**  
**LABORATORY: 3 hours per week.**

The study of electrical power transmission, the National Electrical Code, electrical blueprints, and residential and commercial wiring.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ELEC 217B**  
**INDUSTRIAL ELECTRICITY** 4 UNITS

**PREREQUISITE: ELECTR 115.**

**LECTURE: 3 hours per week and**

**LABORATORY: 3 hours per week.**

Study of DC motors, single and polyphase AC motors, and the necessary controls and measuring equipment, industrial circuit protection and switching equipment.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ELEC 218B**  
**CONTROLLING INDUSTRIAL ELECTRICITY** 4 UNITS

**PREREQUISITES: ELECTR 115 and ELECTR 116.**

**LECTURE: 3 hours per week and**

**LABORATORY: 3 hours per week.**

The study of DC, AC and polyphase motor operation, of mechanical and programmable machine controls, relays and programmable controllers, ladder logic diagrams and the communication network linking the programmer, the controller and the machine.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ELECTR 110**  
**DIRECT CURRENT CIRCUIT ANALYSIS**      **3 UNITS**  
**PREREQUISITE: None.**  
**COREQUISITE: ELECTR 111.**  
**LECTURE: 3 hours per week.**

A comprehensive course in direct circuit analysis including Ohm's Law, series and parallel circuit analysis, voltage and current dividers, DC meters, Kirchhoff's Laws, magnetic circuits, and network theorems.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

**ELECTR 111**  
**DIRECT CURRENT CIRCUIT LABORATORY**      **1 UNIT**  
**PREREQUISITE: None.**

**COREQUISITE: ELECTR 110.**

**LABORATORY: 3 hours per week.**

The laboratory complement to ELECTR 110 including experiments reinforcing the theory of electricity and the necessary technical skills.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

**ELECTR 115**  
**ALTERNATING CURRENT CIRCUIT ANALYSIS**      **3 UNITS**

**PREREQUISITES: ELECTR 110 and ELECTR 111.**

**COREQUISITE: ELECTR 116.**

**LECTURE: 3 hours per week.**

An in-depth analysis of alternating current circuits including AC generation and transformation, inductance and inductive circuits, capacitance and capacitive circuits, time constants, rectangular and polar notation, AC circuit analysis, resonance and filters.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

**ELECTR 116**  
**ALTERNATING CURRENT CIRCUIT LABORATORY**      **1 UNIT**

**PREREQUISITES: ELECTR 110 and ELECTR 111.**

**COREQUISITE: ELECTR 115.**

**LABORATORY: 3 hours per week.**

The laboratory complement to ELECTR 115 including skill training in oscilloscopes QT boards, function generators, and other test equipment.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

**ELECTR 155**  
**ELECTRONIC DRAWING AND ASSEMBLY**      **3 UNITS**  
**PREREQUISITE: None.**

**LECTURE: 2 hours per week and**

**LABORATORY: 3 hours per week.**

Skill in interpreting and creating electronic drawings, circuit board construction and assembly. Emphasis on drawings, soldering, assembly, and fundamentals of CAD.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**ELECTR 158**  
**MICROCOMPUTER OPERATION**      **2 UNITS**  
**PREREQUISITE: None.**

**LECTURE: 1.5 hours per week and**

**LABORATORY: 1.5 hours per week.**

A survey course in the technical applications of the microcomputer systems including computer interconnections, system capabilities and limitations, flowcharting, trouble isolation techniques and the use of microcomputers as calculating devices.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**ELECTR 198**  
**ELECTRONICS WORK EXPERIENCE**      **1-4 UNITS**  
**PREREQUISITE: None.**

Supervised training in the form of on the job employment that will enhance the student's educational goals. The student's major and job must match. Students work 5-20 hours per week to earn units using the following formula: For paid work, 75 hours = 1 unit; for volunteer work, 60 hours = 1 unit. Students may earn a total of 16 units toward graduation in Work Experience 198 courses. Students MUST be working for pay or volunteer before registering for a Work Experience class. NOTE: Only one section of Work Experience may be taken during a semester.

*Associate Degree Applicable*

*Course credit transfers to CSU for elective credit only.*

**ELECTR 220B**  
**F.C.C. RULES AND REGULATIONS**      **3 UNITS**  
**PREREQUISITE: None.**

**LECTURE: 3 hours per week.**

A review of the requirements for the General Radiotelephone Operator's License offered by the Federal Communications Commission.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**ELECTR 222**  
**SPECIAL PROBLEMS IN ELECTRONICS I**      **1 UNIT**  
**PREREQUISITE: ELECTR 116.**

**INDEPENDENT STUDY: 3 hours per week.**

Assigned problems involving laboratory work for selected students who are interested in furthering their knowledge of electronics on an independent study basis. Students are required to devote three hours per week to their project throughout the semester. Prior to registration, a contract must be prepared. See instructor for details.

*Associate Degree Applicable*

*Course credit transfers to CSU for elective credit only.*

**ELECTR 223**  
**SPECIAL PROBLEMS IN ELECTRONICS II**      **2 UNITS**  
**PREREQUISITE: ELECTR 116.**

**INDEPENDENT STUDY: 6 hours per week.**

Assigned problems involving laboratory work for selected students who are interested in furthering their knowledge of electronics on an independent study basis. Students are required to devote six hours per week to their project throughout the semester. Prior to registration, a contract must be prepared. See instructor for details.

*Associate Degree Applicable*

*Course credit transfers to CSU for elective credit only.*

**ELECTR 230**  
**SEMICONDUCTOR DEVICES** 3 UNITS  
**PREREQUISITE: ELECTR 110.**  
**LECTURE: 3 hours per week.**

A study of semiconductor devices including the chemistry and physics of the structure of matter, the structure of the atom and the operation of semiconductor of devices based on energy level analysis.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ELECTR 235**  
**SOLID STATE CIRCUIT ANALYSIS** 4 UNITS  
**PREREQUISITE: ELECTR 230.**  
**LECTURE: 3 hours per week and**  
**LABORATORY: 3 hours per week.**

An analysis of discrete solid state circuits and their design including diodes and their applications; circuit configurations; amplifiers and amplification; biasing techniques; quiescent point stabilization; feedback principles; FETs; photo devices; multi-stage amplifiers and power devices; multi-stage amplifiers and power amplifiers; breadboarding and evaluation of designed circuits using discrete components.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ELECTR 250B**  
**RADIO TRANSMITTERS, RECEIVERS AND ANTENNAS** 4 UNITS

**PREREQUISITE: ELECTR 115.**  
**LECTURE: 3 hours per week and**  
**LABORATORY: 3 hours per week.**

Course includes radio frequency amplifiers, oscillators, signal spectra, elements of noise, AM and FM modulation and demodulation, AM and FM transmitter and receiver systems, transmitter and receiver circuits, frequency and phase modulation and demodulation, phase locked loops, pulse and digital modulation and demodulation and data communication techniques.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ELECTR 255B**  
**TELEPHONE NETWORKING** 4 UNITS  
**PREREQUISITE: ELECTR 115.**  
**LECTURE: 3 hours per week and**  
**LABORATORY: 3 hours per week.**

Course includes telephone topology with emphasis on the Open System Interconnection (OSI) model, telephony color code, tools, patch panels, phone wiring and installation, voice and data block wiring, installation, and programming/troubleshooting a digital key system and network.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ELECTR 257B**  
**NAVIGATION AND COMMUNICATION SYSTEMS** 4 UNITS

**PREREQUISITE: ELECTR 250B.**  
**LECTURE: 3 hours per week and**  
**LABORATORY: 3 hours per week.**

Bench test, installation and ramp test of transmitter and receiver systems and their operating principles. Systems include Auto Direction Finder, Very High Frequency Omnidirectional, LORAN-C, Omega, INS, DME, ILS, VHF comm, HF comm, FM transceivers and transponder.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ELECTR 265**  
**DIGITAL LOGIC DESIGN** 4 UNITS  
**PREREQUISITE: None.**  
**LECTURE: 3 hours per week and**  
**LABORATORY: 3 hours per week.**

Provides technicians, engineers, and programmers with a working knowledge of digital logic circuits and their application to logic circuits to computers. Includes theory and experience necessary to understand and analyze digital circuits logic and systems.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ELECTR 266**  
**MICROPROCESSOR TECHNOLOGY** 4 UNITS  
**PREREQUISITE: ELECTR 265.**  
**LECTURE: 3 hours per week and**  
**LABORATORY: 3 hours per week.**

Fundamental principles of microprocessors, 8080 series with emphasis on their operation and applications in radio, VCRs, and traffic control. Makes use of assembly language interfacing with both analog and digital circuitry. Includes breadboarding circuits and controlling them with the 8080 microprocessor.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ELECTR 270**  
**LINEAR INTEGRATED CIRCUIT ANALYSIS** 4 UNITS  
**PREREQUISITE: ELECTR 115 and ELECTR 116.**  
**LECTURE: 3 hours per week and**  
**LABORATORY: 3 hours per week.**

A review of bipolar transistor fundamentals and differential amplifiers with emphasis on inner connections and circuit designs using integrated circuit operational amplifiers, phase-lock loops, and current differentiating amplifiers. Includes breadboarding and evaluation of various types of active linear and pulse circuits involving operational amplifiers and phase-lock loops.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ELECTR 280B**  
**MINI COMPUTER OPERATION AND MAINTENANCE** 4 UNITS

**PREREQUISITE: ELECTR 266.**  
**LECTURE: 3 hours per week and**  
**LABORATORY: 3 hours per week.**

Provides technicians and engineers with a working knowledge of the principles and analysis techniques applicable to computer operations and maintenance. Includes the theory and experience necessary to understand and analyze computer circuitry as needed for entry-level work in the computer and electronics industry.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ELECTR 290B**  
**INDUSTRIAL COMPUTERS AND ROBOTICS** 4 UNITS  
**MAINTENANCE**  
**PREREQUISITE: ELECTR 266.**  
**LECTURE: 3 hours per week and**  
**LABORATORY: 3 hours per week.**

A comprehensive study of computers and robots used in industry. Includes diagnostics and programming for controlling robots, machines and medical equipment.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**TECALC 950  
SHOP CALCULATIONS**

**3 UNITS**

**PREREQUISITE: None.**

**LECTURE: 3 hours per week.**

A basic skills course designed as a review of whole numbers, fractions, decimals, problem solving methods, and practical measurements.

*Not applicable to the Associate Degree*

**TECALC 087  
TECHNICAL CALCULATIONS**

**4 UNITS**

**PREREQUISITE: None.**

**LECTURE: 4 hours per week.**

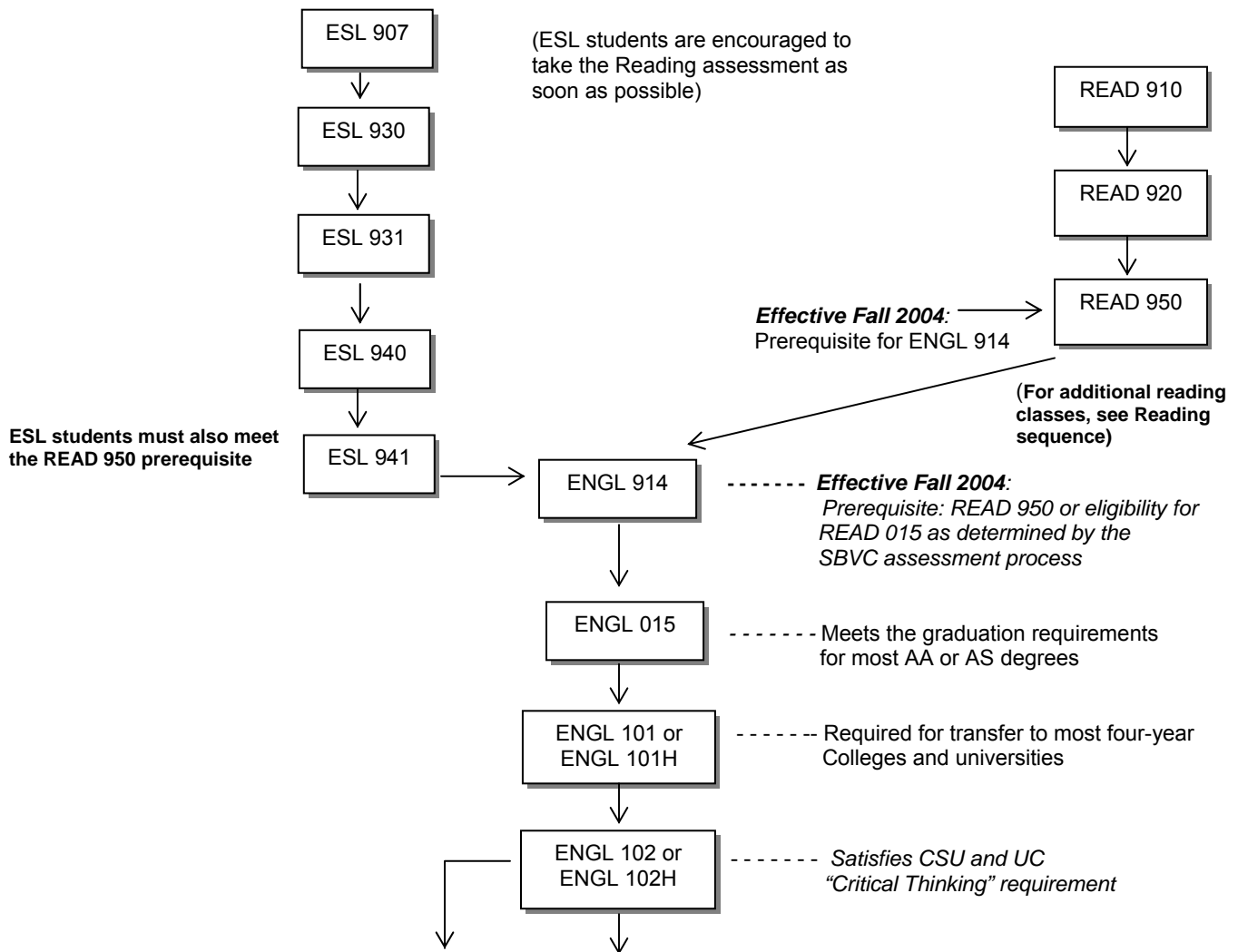
Practical use and applications of technical calculations on topics such as electrical, measurements, temperature, volume, weight, and positioning. Includes the number line, working with dedicated formula, applied problems, geometric principles, graphs, right triangles, coordinate systems, and scientific notation.

*Not applicable to the Associate Degree*



## Sequence of English Courses at SBVC

Your placement within any of the sequences is dependent on the results of the SBVC Reading and English assessment process.  
(Contact a counselor for details and the Admissions Office for assessment dates.)



### ADVANCED ENGLISH COURSES

**Advanced English Courses: News Writing, Creating Writing, and Literature courses  
(ENGL 120 through ENGL 281) have a prerequisite of ENGL 101**

- ENGL 120 Fundamentals of News Writing
- ENGL 122x4 Journalism Production
- ENGL 151 Freshman Composition and Literature
- ENGL 153 Literature and Film
- ENGL 155 Children's Literature
- ENGL 161 Women Writers
- ENGL 163 Chicano Literature
- ENGL 165 African-American Literature
- ENGL 175 Literature and Religion of the Bible
- ENGL 232 Creative Writing
- ENGL 260 American Literature: to the Mid-1800s
- ENGL 261 American Literature: from the Mid-1800s to the Present
- ENGL 270 English Literature to the 18th Century
- ENGL 271 English Literature from the 18th Century to the Present
- ENGL 275 Shakespeare
- ENGL 280 World Literature to the 17th Century
- ENGL 281 World Literature from the 17th Century to the Present



## ENGLISH

DIVISION: Humanities  
DIVISION DEAN: Marjorie Price, M.A., M.Ed.  
DEPARTMENT HEAD: Judith Ashton, M.A.  
Liberal Arts 217A  
(909) 384-8617  
OTHER FACULTY: Horace Alexander, Ed.D.  
Sharon Chapman, M.A.  
Paula Ferri-Milligan, M.A.  
Sheela Free, Ph.D.  
Diane Hunter, M.A.  
Thomas Kinnaird, M.A.  
Joel Lamore, M.A.  
Yvette Lee, M.A.  
William McKie, M.A.  
Dolores Moreno, M.A.  
Anasuya Pal, Ph.D.  
Edward Perez, Ph.D.  
Lydia Rivera, Ph.D.  
Michael Slusser, M.A.  
Julie Tilton, M.A.  
DIVISION SECRETARIES: Kelly Adcock  
(909) 384-8906  
Cheryl Benner  
(909) 384-8633  
DIVISION OFFICE: North Hall 236  
(909) 384-4445  
LIAISON COUNSELOR: Juan Zepeda, M.S  
(909) 384-4404

The English Department offers courses in composition, literature, journalism, creative writing, English as a second-language, and basic skills. These courses are designed to help students develop skills in reading perceptively, thinking critically, and writing effectively. The Writing Center, located in Liberal Arts 201, offers supplemental support to assist students in developing these skills.

In order to be placed into the proper level of composition class, all new students are required to take a placement test and meet with a counselor prior to enrollment. A schedule of test dates is available in the Counseling Center. A counselor will use those scores as well as other information, such as high school and/or work experience, to place students in the proper English class.

Students planning to transfer to a four-year institution and major in English should consult with a counselor regarding the transfer process and lower division requirements.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Write clearly.
- Evaluate diverse artistic works.
- Demonstrate creative thought through original expression.
- Demonstrate etiquette in face-to-face and written interactions.
- Work effectively in group settings.
- Utilize conflict resolution skills.
- Demonstrate knowledge of and respect for other cultures.
- Demonstrate knowledge of and respect for one's own culture.

## COURSES OFFERED BY THE DEPARTMENT OF ENGLISH:

**ENGL 911**  
**BASIC GRAMMAR AND USAGE REVIEW** 1 UNIT  
**PREREQUISITE: None.**

**LECTURE: 1 hour per week.**

A review of basic English grammar (parts of speech and sentence structure) as well as a review of common errors in grammar and usage.

*Not applicable to the Associate Degree*

**ENGL 912**  
**RESEARCH PAPER WORKSHOP** 1 UNIT  
**PREREQUISITE: None.**

**LECTURE: 1 hour per week.**

A workshop to prepare students in all phases of preparing a research paper, from selecting a topic to final format.

*Not Applicable to the Associate Degree*

**ENGL 914**  
**BASIC WRITING** 3 UNITS  
**PREREQUISITE: READ 950 or eligibility for READ 015 as determined by SBVC assessment process.**

**LECTURE: 3 hours per week.**

A basic skills writing course for students who are not eligible for ENGL 015. Focus is on effective sentences and paragraphs including an extensive review of grammar, punctuation, and usage.

*Not Applicable to the Associate Degree*

**ENGL 920**  
**GRAMMAR** 3 UNITS  
**PREREQUISITE: None.**

**LECTURE: 3 hours per week.**

An introductory course on basic grammatical principles and language use, focusing on the structure of the sentence, parts of speech and major errors in grammar and usage.

*Not Applicable to the Associate Degree*

**ENGL 015**  
**PREPARATION FOR COLLEGE WRITING** 4 UNITS

**PREREQUISITE: ENGL 914 or eligibility for ENGL 015 as determined by SBVC assessment process.**

**LECTURE: 4 hours per week.**

A writing course designed to prepare students for ENGL 101. Primary focus on the development of the paragraph and short essay. Includes a review of grammar, sentence structure, and punctuation.

*Associate Degree Applicable (applies toward English requirement)*

**ENGL 020**  
**FUNDAMENTALS OF NEWS WRITING** 3 UNITS  
**PREREQUISITE: ENGL 914 or eligibility for ENGL 015 as determined by SBVC assessment process.**

**LECTURE: 3 hours per week.**

A course in journalistic writing: reporting, feature writing, interpretation, editorial and column writing and critical review of the arts. Emphasis is on the most basic form, the news story. This non-transfer course is taught simultaneously with ENGL 120, a transfer-level course. Assignments differ for the two courses although students participate in the same lectures.

*Associate Degree Applicable*

**ENGL 022x4**  
**JOURNALISM PRODUCTION** 2 UNITS  
**PREREQUISITE:** ENGL 914 or eligibility for ENGL 015  
as determined by SBVC assessment process.  
**LABORATORY:** 6 hours per week.

A laboratory course for the production of the campus newspaper. Students participate in all phases of newspaper production: writing, reporting, layout, advertising, photography, editing and distribution. This course may be taken four times. This non-transfer course is taught simultaneously with ENGL 122x4, a transfer-level course. Assignments differ for the two courses although students participate in the same lectures. This course may be taken four times.

*Associate Degree Applicable*

**ENGL 032**  
**CREATIVE WRITING** 3 UNITS  
**PREREQUISITE:** ENGL 914 or eligibility for ENGL 015  
as determined by SBVC assessment process.  
**LECTURE:** 3 hours per week.

Introductory course in creative writing focusing on poetry and fiction. Includes strategies for writing both poetry and fiction, and the development of critical standards for judging literature. This non-transfer course is taught simultaneously with ENGL 232, a transfer-level course. Assignments differ for the two courses although students participate in the same lectures

*Associate Degree Applicable*

**ENGL 055**  
**CHILDREN'S LITERATURE** 3 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week.

Survey of literature written for children with emphasis on values common to all significant literature. This non-transfer course is taught simultaneously with ENGL 155, a transfer-level course. Assignments differ for the two courses although students participate in the same lectures.

*Associate Degree Applicable*

**ENGL 061**  
**WOMEN WRITERS** 3 UNITS  
**PREREQUISITE:** ENGL 914 or eligibility for ENGL 015  
as determined by SBVC assessment process.  
**LECTURE:** 3 hours per week.

A survey of poetry and prose by prominent women writers, exploring historical and contemporary issues in women's lives. This non-transfer course is taught simultaneously with ENGL 161, a transfer-level course. Assignments differ for the two courses although students participate in the same lectures.

*Associate Degree Applicable*

**ENGL 063**  
**CHICANO LITERATURE** 3 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week.

Survey of representative Chicano literature including novels, drama, poetry, and essays. This non-transfer course is taught simultaneously with ENGL 163, a transfer-level course. Assignments differ for the two courses although students participate in the same lectures.

*Associate Degree Applicable*

**ENGL 065**  
**AFRICAN-AMERICAN LITERATURE** 3 UNITS  
**PREREQUISITE:** None.

**LECTURE:** 3 hours per week.

A survey of some of the most important works written by African-Americans in the genres of poetry, drama, the short story, the novel and the essay. This non-transfer course is taught simultaneously with ENGL 165, a transfer-level course. Assignments differ for the two courses although students participate in the same lectures.

*Associate Degree Applicable*

**ENGL 070**  
**ENGLISH LITERATURE TO THE 18<sup>TH</sup> CENTURY** 3 UNITS

**PREREQUISITE:** ENGL 914 or eligibility for ENGL 015  
as determined by SBVC assessment process.  
**LECTURE:** 3 hours per week.

Analysis of masterpieces of every literary type significant in the development of English literature from the Middle Ages to the early 18th Century, supplemented by a study of the historical and social background of the literature and lives of representative and important writers. This non-transfer course is taught simultaneously with ENGL 270, a transfer-level course. Assignments differ for the two courses although students participate in the same lectures.

*Associate Degree Applicable*

**ENGL 071**  
**ENGLISH LITERATURE FROM THE 18<sup>TH</sup> CENTURY  
TO THE PRESENT** 3 UNITS  
**PREREQUISITE:** ENGL 914 or eligibility for ENGL 015  
as determined by SBVC assessment process.  
**LECTURE:** 3 hours per week.

Analysis of masterpieces of every literary type significant in the development of English literature from the 18th Century to the present day, supplemented by a study of the historical and social background of the literature and lives of representative and important writers. This non-transfer course is taught simultaneously with ENGL 271, a transfer-level course. Assignments differ for the two courses although students participate in the same lectures.

*Associate Degree Applicable*

**ENGL 075**  
**LITERATURE AND RELIGION OF THE BIBLE** 3 UNITS

**PREREQUISITE:** ENGL 914 or eligibility for ENGL 015  
as determined by SBVC assessment process.  
**LECTURE:** 3 hours per week.

The English Bible as literature and as religion including an examination of the types of literature found in the Bible, the historical and religious context in which the literature was developed and an extensive reading of the two testaments. This non-transfer course is taught simultaneously with ENGL 175, a transfer-level course. Assignments differ for the two courses although students participate in the same lectures.

*Associate Degree Applicable*

**ENGL 077**  
**SHAKESPEARE** 3 UNITS  
**PREREQUISITE: ENGL 914 or eligibility for ENGL 015**  
**as determined by SBVC assessment process.**  
**LECTURE: 3 hours per week.**

A critical analysis of a selection of Shakespeare's plays representative of his literary development. Lectures, films, and recordings will examine life and the theater in Elizabethan England. This non-transfer course is taught simultaneously with ENGL 275, a transfer-level course. Assignments differ for the two courses although students participate in the same lectures.  
*Associate Degree Applicable*

**ENGL 080**  
**WORLD LITERATURE TO THE 17<sup>TH</sup> CENTURY** 3 UNITS  
**PREREQUISITE: ENGL 914 or eligibility for ENGL 015**  
**as determined by SBVC assessment process.**  
**LECTURE: 3 hours per week.**

An introduction to world literature from the beginning to the seventeenth century, including a critical analysis of selected samples of literature within the context of the culture and time in which they were written. This non-transfer course is taught simultaneously with ENGL 280, a transfer-level course. Assignments differ for the two courses although students participate in the same lectures.  
*Associate Degree Applicable*

**ENGL 081**  
**WORLD LITERATURE: FROM THE 17<sup>TH</sup> CENTURY**  
**TO THE PRESENT** 3 UNITS  
**PREREQUISITE: ENGL 914 or eligibility for ENGL 015**  
**as determined by SBVC assessment process.**  
**LECTURE: 3 Hours per week.**

An introduction to world literature from the seventeenth century to the present, including a critical analysis of selected samples of literature within the context of the culture and time in which they were written. This non-transfer course is taught simultaneously with ENGL 281, a transfer-level course. Assignments differ for the two courses although students participate in the same lectures.  
*Associate Degree Applicable*

**ENGL 101**  
**FRESHMAN COMPOSITION** 4 UNITS  
**PREREQUISITE: ENGL 015 or eligibility for ENGL 101**  
**as determined by SBVC assessment process.**  
**LECTURE: 4 hours per week.**

A writing course which emphasizes expository and argumentative essays. Includes reading and analysis of various forms of writing, instruction in library research and preparation of documented papers.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*  
*Limited transfer to UC; contact a counselor for details.*  
*CAN (California Articulation Number): ENGL 2*

**ENGL 101H**  
**FRESHMAN COMPOSITION-HONORS** 4 UNITS  
**PREREQUISITE: ENGL 015 or eligibility for ENGL101**  
**as determined by SBVC assessment process.**  
**LECTURE: 4 hours per week.**

A writing course which emphasizes expository and argumentative essays. Includes reading and analysis of various forms of writing, instruction in library research and preparation of documented papers. Enrollment is limited to students eligible for the Honors Program.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*  
*Limited transfer to UC; contact a counselor for details.*

**ENGL 102**  
**INTERMEDIATE COMPOSITION AND CRITICAL**  
**THINKING** 4 UNITS  
**PREREQUISITE: ENGL 101.**  
**LECTURE: 4 hours per week.**

Further work in the expository and argumentative essay with emphasis on the critical examination of literature and on analytical and explicatory writing.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*  
*Limited transfer to UC; contact a counselor for details.*

**ENGL 102H**  
**INTERMEDIATE COMPOSITION AND CRITICAL**  
**THINKING – HONORS** 4 UNITS  
**PREREQUISITE: ENGL 101 or ENGL 101H.**  
**LECTURE: 4 hours per week.**

Further work in the expository and argumentative essay with emphasis on the critical examination of literature and on analytical and explicatory writing. Enrollment is limited to students eligible for the Honors Program.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*  
*Limited transfer to UC; contact a counselor for details.*

**ENGL 120**  
**FUNDAMENTALS OF NEWS WRITING** 3 UNITS  
**PREREQUISITE: ENGL 101.**  
**LECTURE: 3 hours per week.**

A course in journalistic writing: reporting, feature writing, interpretation, editorial and column writing and critical review of the arts. Emphasis on the most basic form, the news story.  
*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*  
*CAN (California Articulation Number): JOUR 2*

**ENGL 122x4**  
**JOURNALISM PRODUCTION** 2 UNITS  
**PREREQUISITE: ENGL 101 or ENGL 101H.**  
**LABORATORY: 6 hours per week.**

A laboratory course for the production of the campus newspaper. Students participate in all phases of newspaper production: writing, reporting, layout, advertising, photography, editing, and distribution. This course may be taken four times.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ENGL 125x2**  
**LITERARY MAGAZINE PRODUCTION** 2 UNITS  
**PREREQUISITE:** ENGL 015 or eligibility for ENGL101  
as determined by SBVC assessment process.  
**LABORATORY:** 4 hours per week.

The production of the college literary magazine including selecting material, planning format, typesetting, and paste-up. This course may be taken two times.

*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**ENGL 151**  
**FRESHMAN COMPOSITION AND LITERATURE** 3 UNITS

**PREREQUISITE:** ENGL 101.  
**LECTURE:** 3 hours per week.

Study of fiction, poetry, and drama with emphasis on the fundamental principles of literary criticism and interpretation. Includes student writing based on critical reading.

*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*  
*CAN (California Articulation Number): ENGL 4*

**ENGL 153**  
**LITERATURE AND FILM** 3 UNITS  
**PREREQUISITE:** ENGL 101.  
**LECTURE:** 2 hours per week and  
**LABORATORY:** 2 hours per week.

A study of literature adapted into film. Students will read short stories, novels, and plays; view the film(s) adapted from each literary work; and write critical and analytic essays about the literature, the films, and their interplay.

*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

**ENGL 155**  
**CHILDREN'S LITERATURE** 3 UNITS  
**PREREQUISITE:** ENGL 101.  
**LECTURE:** 3 hours per week.

Survey of literature written for children with emphasis on values common to all significant literature. This transfer course is taught simultaneously with ENGL 055, a non-transfer course. Assignments differ for the two courses although the students participate in the same lectures.

*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

**ENGL 161**  
**WOMEN WRITERS** 3 UNITS  
**PREREQUISITE:** ENGL 101.  
**LECTURE:** 3 hours per week.

A survey of poetry and prose by prominent women writers, exploring historical and contemporary issues in women's lives.

*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

**ENGL 163**  
**CHICANO LITERATURE** 3 UNITS  
**PREREQUISITE:** ENGL 101.  
**LECTURE:** 3 hours per week.

Survey of representative Chicano literature including novels, drama, poetry, and essays which focus on the cultural, social, and political developments/themes which shape and characterize Chicano culture and literary expression. This transfer course is taught simultaneously with ENGL 063, a non-transfer-level course. Assignments differ for the two courses although students participate in the same lectures.

*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

**ENGL 165**  
**AFRICAN-AMERICAN LITERATURE** 3 UNITS  
**PREREQUISITE:** ENGL 101.  
**LECTURE:** 3 hours per week.

A survey of some of the most important works written by African-Americans in the genres of poetry, drama, the short story, the novel and the essay. This transfer course is taught simultaneously with ENGL 065, a non-transfer course. Assignments differ for the two courses although the students participate in the same lectures.

*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

**ENGL 175**  
**LITERATURE AND RELIGION OF THE BIBLE** 3 UNITS  
**PREREQUISITE:** ENGL 101.  
**LECTURE:** 3 hours per week.

The English Bible as literature and as religion including an examination of the types of literature found in the Bible, the historical and religious context in which the literature was developed and an extensive reading of the two testaments. This course is also offered as RELIG 175.

*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

**ENGL 232**  
**CREATIVE WRITING** 3 UNITS  
**PREREQUISITE:** ENGL 101.  
**LECTURE:** 3 hours per week.

An introductory course in creative writing focusing on poetry and fiction. Includes strategies for writing both poetry and fiction, and the development of critical standards for judging literature.

*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*  
*CAN (California Articulation Number): ENGL 6*

**ENGL 260**  
**AMERICAN LITERATURE: TO THE MID-1800S** 3 UNITS

**PREREQUISITE:** ENGL 101.  
**LECTURE:** 3 hours per week.

Reading of representative literary works of significant writers to illustrate the origin and development of American thought and culture from colonial times to the mid-1800s.

*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*  
*CAN (California Articulation Number): ENGL 14*

**ENGL 261**  
**AMERICAN LITERATURE: FROM THE MID-1800S**  
**TO THE PRESENT** **3 UNITS**

**PREREQUISITE: ENGL 101.**  
**LECTURE: 3 hours per week.**

Reading of representative literary works of significant writers to illustrate the development of literary and intellectual American thought from the mid-1800s to the present.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

*CAN (California Articulation Number): ENGL 16*

**ENGL 270**  
**ENGLISH LITERATURE TO THE 18TH CENTURY**  
**3 UNITS**

**PREREQUISITE: ENGL 101.**  
**LECTURE: 3 hours per week.**

Analysis of masterpieces of every literary type significant in the development of English literature from the Middle Ages to the early 18th century, supplemented by a study of the historical and social background of the literature and lives of representative and important writers.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

*CAN (California Articulation Number): ENGL 8*

**ENGL 271**  
**ENGLISH LITERATURE FROM THE 18TH CENTURY**  
**TO THE PRESENT** **3 UNITS**

**PREREQUISITE: ENGL 101.**  
**LECTURE: 3 hours per week.**

Analysis of masterpieces of every literary type significant in the development of English literature from the 18th century to the present day, supplemented by a study of the historical and social background of the literature and lives of representative and important writers.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

*CAN (California Articulation Number): ENGL 10*

**ENGL 275**  
**SHAKESPEARE** **3 UNITS**

**PREREQUISITE: ENGL 101.**  
**LECTURE: 3 hours per week.**

A critical analysis of a selection of Shakespeare's plays representative of his literary development. Lectures, films, and records examine life and the theatre in Elizabethan England.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

**ENGL 280**  
**WORLD LITERATURE: TO THE 17TH CENTURY**  
**3 UNITS**

**PREREQUISITE: ENGL 101.**  
**LECTURE: 3 hours per week.**

An introduction to world literature from the beginning to the 17<sup>th</sup> century, including a critical analysis of selected samples of literature within the context of the culture and time in which they were written.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

**ENGL 281**  
**WORLD LITERATURE: FROM THE 17TH CENTURY**  
**TO THE PRESENT** **3 UNITS**

**PREREQUISITE: ENGL 101.**  
**LECTURE: 3 hours per week.**

An introduction to world literature from the 17th century to the present, including a critical analysis of selected samples of literature within the context of the culture and time in which they were written.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

## **ENGLISH AS A SECOND LANGUAGE**

*Courses in English as a second language are designed for individuals learning English as a foreign language. The various courses cover writing, conversation, spelling and vocabulary in the English language.*

Core competencies emphasized by courses in this department:

- Write clearly.
- Speak clearly.
- Employ vocabulary of the subject studied.

**ESL 906**  
**THE SOUND PATTERNS OF ENGLISH** **3 UNITS**

**PREREQUISITE: None.**  
**LECTURE: 3 hours per week.**

A basic skills course designed to increase the non-native English speaker's ability to understand and pronounce the sounds of standard American English. Instruction in the pronunciation of vowels, consonants and intonation patterns with special emphasis in decreasing communication problems due to non-standard American English pronunciation.

*Not Applicable to the Associate Degree*

**ESL 907**  
**PRACTICAL CONVERSATION** **3 UNITS**

**PREREQUISITE: None.**  
**LECTURE: 3 hours per week.**

This is a course designed to increase non-native students' skills in pronunciation, listening and conversation. The course will offer extensive listening and conversation instruction.

*Not Applicable to the Associate Degree*

**ESL 930**  
**PATTERNS OF CONTEMPORARY ENGLISH I** **4 UNITS**

**PREREQUISITE: None.**  
**LECTURE: 4 hours per week.**

This is the first of two courses which together present an introduction of spoken and written English for non-native speakers of English. It provides instruction on listening comprehension, conversation, reading and writing. The course covers grammatical features, troublesome exceptions, elementary pronunciation and basic sentence patterns.

*Not Applicable to the Associate Degree*

**ESL 931**  
**PATTERNS OF CONTEMPORARY ENGLISH II**  
**4 UNITS**

**PREREQUISITE: ESL 930 or eligibility as determined by SBVC assessment process.**  
**LECTURE: 4 hours per week.**

This is the second of a two-course basic skills sequence which together present an introduction of spoken and written English for non-native speakers of English. It provides instruction on listening comprehension, conversation, reading and writing. The course covers grammatical features, troublesome exceptions, elementary pronunciation and basic sentence patterns including complex sentences and simple paragraphs.  
*Not Applicable to the Associate Degree*

**ESL 940**  
**PATTERNS OF CONTEMPORARY ENGLISH III**  
**4 UNITS**

**PREREQUISITE: ESL 931 or eligibility as determined by SBVC assessment process.**  
**LECTURE: 4 hours per week.**

The first of a two-course basic skills sequence emphasizing written English. Emphasis on intensive paragraph writing preparation, reading comprehension practice, and instruction on writing brief essay responses to questions on reading passages.  
*Not Applicable to the Associate Degree*

**ESL 941**  
**PATTERNS OF CONTEMPORARY ENGLISH IV**  
**4 UNITS**

**PREREQUISITE: ESL 940 or eligibility as determined through the SBVC assessment process.**  
**LECTURE: 4 hours per week.**

The second of a two-course basic skills sequence emphasizing written English. Emphasis on intensive paragraph writing preparation, reading comprehension practice, writing brief essay responses to short articles and developing summarizing skills.  
*Not Applicable to the Associate Degree*

**ESCROW**

See the Department of REAL ESTATE AND ESCROW

**FAMILY AND CONSUMER SCIENCE**

DIVISION: Social Science & Human Development  
 DIVISION DEAN: Janice Noble, M.Ed.  
 DEPARTMENT HEAD: Juliann Martin, M.A.  
 North Hall 244  
 (909) 384-4457  
 DIVISION SECRETARY: To Be Announced  
 DIVISION OFFICE: Liberal Arts, Room 122  
 (909) 384-8603  
 LIAISON COUNSELOR: Mary Beth Barrios, M.S.  
 (909) 384-4404

Core competencies emphasized by courses in this department:

- Read and retain information.
- Write clearly.
- Employ vocabulary of the subject studied.
- Find and interpret information.

- Apply learned knowledge to new situations.
- Apply principles of scientific reasoning to solve problems.
- Display behavior consistent with ethical standards within a discipline.

**FAMILY AND CONSUMER SCIENCE**  
**CERTIFICATES**

Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

**1. DIETETIC AIDE CERTIFICATE**

This certificate is designed to prepare students for entry-level employment in dietetics, assisting dietitians in the provision of food service and nutritional programs. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

<b>REQUIRED COURSES:</b>	<b>UNITS</b>
FCS 160 Food Preparation	3
FCS 161 Quantity Food Preparation	3
FCS 162 Nutrition	3
FCS 225 Sanitation and Safety	3
FCS 235 Menu Planning	3
FCS 240 Purchasing	3
FCS 260 Modified Diets	3
<b>TOTAL UNITS:</b>	<b>21</b>

**2. DIETETIC SERVICE SUPERVISOR CERTIFICATE**

This certificate is designed to prepare students to meet the California Department of Health Licensing Requirements for Dietetic Service Supervisor [DSS] in order to supervise production, writing menus, designing diets, teaching classes to food service personnel, and giving diet instructions. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

<b>REQUIRED COURSES:</b>	<b>UNITS</b>
FCS 160 Food Preparation	3
FCS 161 Quantity Food Preparation	3
FCS 162 Nutrition	3
FCS 225 Sanitation and Safety	3
FCS 240 Purchasing	3
FCS 260 Modified Diets	3
FCS 262 Nutrition Care	4.5
FCS 264 Nutrition Management	3

<b>RECOMMENDED COURSES:</b>	
BUSAD 105 Small Business Management	3
TECALC 097 Technical Calculations	4
Or	
MATH 090 Elementary Algebra	(4)
<b>TOTAL UNITS:</b>	<b>25.5-32.5</b>

**COURSES OFFERED BY THE DEPARTMENT OF FAMILY AND CONSUMER SCIENCE:**

**FCS 160**  
**INTRODUCTION TO FOODS** **3 UNITS**  
**PREREQUISITE: None.**

**LECTURE: 2 hours per week and**  
**LABORATORY: 3 hours per week.**

Introduction to food science principles and food preparation techniques. Emphasis on ingredient functions and interactions; technique, production and sensory evaluation standards, food safety, sanitation, nutrient values, and food presentation. This course is also listed as RM160.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

*CAN (California Articulation Number): FCS 8*

**FCS 161**  
**QUANTITY FOOD PREPARATION** **3 UNITS**  
**PREREQUISITE: FCS 160 or RM 160.**

**LECTURE: 3 hours per week.**

Introduction to the scientific theory of the application of heat, and the changes that takes place in food during the cooking process. Includes handling of kitchen tools and equipment, analysis of budgets, and the proper techniques of preparing food for quantity production. This course is also offered as RM/FS 161.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**FCS 162**  
**NUTRITION** **3 UNITS**  
**PREREQUISITE: None.**

**LECTURE: 3 hours per week.**

Scientific concepts of nutrition relating to the functioning of nutrients in the basic life processes. Emphasis on individual needs, food sources of nutrients, current nutritional issues and diet analysis.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

*CAN (California Articulation Number): FCS 2*

**FCS 198**  
**FAMILY AND CONSUMER SCIENCE WORK**  
**EXPERIENCE** **1-4 UNITS**  
**PREREQUISITE: None.**

Supervised training in the form of on the job employment that will enhance the student's educational goals. The student's major and job must match. Students work 5-20 hours per week to earn units using the following formula: For paid work, 75 hours = 1 unit; for volunteer work, 60 hours = 1 unit. Students may earn a total of 16 units toward graduation in Work Experience 198 courses. Students MUST be working for pay or volunteer before registering for a Work Experience class. NOTE: Only one section of Work Experience may be taken during a semester.

*Associate Degree Applicable*

*Course credit transfers to CSU for elective credit only.*

**FCS 222**  
**SPECIAL PROBLEMS IN FAMILY AND**  
**CONSUMER SCIENCE I** **1 UNIT**  
**PREREQUISITE: One class in Family and Consumer**  
**Science.**

**INDEPENDENT STUDY: 3 hours per week.**

Assigned problems involving library and laboratory work for selected students who are interested in furthering their knowledge of family and consumer science on an independent study basis. Students are required to devote three hours per week to their project throughout the semester. Prior to registration, a contract must be prepared. See instructor for details.

*Associate Degree Applicable*

*Course credit transfers to CSU for elective credit only.*

**FCS 225**  
**SANITATION AND SAFETY** **3 UNITS**  
**PREREQUISITE: FCS 160 or RM/FS 101 or RM 160.**  
**LECTURE: 3 hours per week.**

Sanitation and safety as these effect the individual and the operation with a focus on prevention and control of problems encountered in client and employee safety and sanitation. Includes accidents, fire prevention, security maintenance and foodborne illnesses. This course is also offered as RM/FS 225.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**FCS 235**  
**MENU PLANNING** **3 UNITS**  
**PREREQUISITE: FCS 160 or RM/FS 101 or RM 160.**  
**LECTURE: 3 hours per week.**

Principles of menu planning with emphasis on development, types, organization and significance of menus. Includes cost and pricing of menu items, and current legislation regarding truth in advertising. This course is also offered as RM 235.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**FCS 240**  
**PURCHASING** **3 UNITS**  
**PREREQUISITE: None.**  
**LECTURE: 3 hours per week.**

Policies, procedures, controls and their implementation in purchasing merchandise and supplies including food, beverage, equipment, service-ware, furniture, fixtures, and contract services. Students write and analyze reports of purchasing procedures, manuals, and receiving reports. This course is also offered as RM/FS 240.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**FCS 260**  
**MODIFIED DIETS** **3 UNITS**  
**PREREQUISITE: FCS 162.**  
**LECTURE: 3 hours per week.**

The principles of nutrition relating to modified diets used in the treatment of abnormal physical conditions with an emphasis on the rationale for the diet and how these modifications will improve the patient's condition.

*Associate Degree Applicable*

*Course credit transfers to CSU.*

**FCS 262**  
**NUTRITION CARE** 4.5 UNITS  
**PREREQUISITE:** FCS 162.  
**COREQUISITE:** FCS 260.  
**LECTURE:** 2 hours per week and  
**FIELD WORK:** 150 hours total.  
 The integration of academic knowledge and clinical field experience in dietary health care including nutrition care, dietary evaluation, education, and case studies.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

**FCS 264**  
**NUTRITION MANAGEMENT** 3 UNITS  
**PREREQUISITE:** None.  
**LECTURE:** 3 hours per week.  
 Planning and coordinating the operation of a food service system within the policies of an organization including the staffing, training, procedures, and responsibilities for financial planning and cost control.  
*Associate Degree Applicable*  
*Course credit transfers to CSU.*

## FLOOR

DIVISION: Applied Technology & Transportation  
 DIVISION DEAN: Thomas Bauman, M.S., P.E.  
 DEPARTMENT HEAD: William Clark, Ed.D.  
 Technical 108  
 (909) 384-8504  
 DIVISION SECRETARY: Patsy Martinez  
 (909) 384-8902  
 DIVISION OFFICE: Technical Building, Room 108  
 (909) 384-4451  
 LIASION COUNSELOR: Jennifer Mendoza, M.S.  
 (909) 384-4404

### COURSES OFFERED BY THE DEPARTMENT OF FLOOR:

**FLOOR 010A**  
**FLOORING INSTALLATION: CARPET** 1 UNIT  
**PREREQUISITE:** None.  
**LECTURE:** .50 hour per week and  
**LABORATORY:** 1.50 hours per week.  
 Theory and practical application of techniques for installation of carpet, including methods of measuring, selecting appropriate products and cutting techniques. Employment in the industry will also be addressed.  
*Associate Degree Applicable*

**FLOOR 010B**  
**FLOORING INSTALLATION: SHEET VINYL, VINYL TILE AND COMPOSITION TILE** 1 UNIT  
**PREREQUISITE:** None.  
**LECTURE:** .50 hour per week and  
**LABORATORY:** 1.50 hours per week.  
 Theory and practical application of techniques for installation of sheet vinyl, vinyl tile, and composition tile, including methods of measuring, selecting appropriate products and cutting techniques. Employment in the industry will also be addressed.  
*Associate Degree Applicable*

**FLOOR 010C**  
**FLOORING INSTALLATION: CERAMIC TILE** 1 UNIT  
**PREREQUISITE:** None.  
**LECTURE:** .50 hour per week and  
**LABORATORY:** 1.50 hours per week.  
 Theory and practical application of techniques for installation of ceramic tile, including methods of measuring, selecting appropriate products and cutting techniques. Employment in the industry will also be addressed.  
*Associate Degree Applicable*

**FLOOR 010D**  
**FLOORING INSTALLATION: WOOD FLOOR AND LAMINATE** 1 UNIT  
**PREREQUISITE:** None.  
**LECTURE:** .50 hour per week and  
**LABORATORY:** 1.50 hours per week.  
 Theory and practical application of techniques for installation of wood floor and laminate, including methods of measuring, selecting appropriate products and cutting techniques. Employment in the industry will also be addressed.  
*Associate Degree Applicable*

**FLOOR 011Ax3**  
**FLOORING INSTALLATION: CARPET LABORATORY** .50 UNIT  
**PREREQUISITE:** FLOOR 010A.  
**LABORATORY:** 1.50 hours per week.  
 Practical application of techniques for installation of carpet, including methods of measuring, selecting appropriate products and installation. This course may be taken three times.  
*Associate Degree Applicable*

**FLOOR 011Bx3**  
**FLOORING INSTALLATION: VINYL AND COMPOSITION FLOOR LABORATORY** .50 UNIT  
**PREREQUISITE:** FLOOR 010B.  
**LABORATORY:** 1.50 hours per week.  
 Practical application of techniques for installation of sheet vinyl, vinyl tile and composition tile, including methods of measuring, selecting appropriate products and installation. Employment in the industry will also be addressed. This course may be taken three times.  
*Associate Degree Applicable*

**FLOOR 011Cx3**  
**FLOORING INSTALLATION: CERAMIC TILE LABORATORY** .50 UNIT  
**PREREQUISITE:** FLOOR 010C.  
**LABORATORY:** 1.50 hours per week.  
 Practical application of techniques for installation of ceramic tile, including methods of measuring, selecting appropriate products and installation. Employment in the industry will also be addressed. This course may be taken three times.  
*Associate Degree Applicable*

**FLOOR 011Dx3**  
**FLOORING INSTALLATION: WOOD FLOOR AND LAMINATE LABORATORY** .50 UNIT  
**PREREQUISITE:** FLOOR 010D.  
**LABORATORY:** 1.50 hours per week.  
 Practical application of techniques for installation of wood floor and laminate, including methods of measuring, selecting appropriate products and installation. Employment in the industry will also be addressed. This course may be taken three times.  
*Associate Degree Applicable*



## FOOD SERVICE

See the Department of RESTAURANT  
MANAGEMENT/FOOD SERVICE

## FRENCH

DIVISION: Humanities  
DIVISION DEAN: Marjorie Price, M.A., M.Ed.  
DEPARTMENT HEAD: Nori Sogomonian  
North Hall 221-222  
(909) 384-8544  
DIVISION SECRETARIES: Kelly Adcock  
(909) 384-8906  
Cheryl Benner  
(909) 384-8633  
DIVISION OFFICE: North Hall 236  
(909) 384-4445  
LIAISON COUNSELOR: Juan Zepeda, M.S.  
(909) 384-4404

The ever-increasing role that the United States takes in global affairs, international trade, and the growing numbers of immigrants dictate the need for knowledge of a modern foreign language. The primary objective of the Modern Languages Department is communication at an acceptably correct level with an understanding of culture.

Teaching methods incorporate critical thinking activities and include the direct oral approach, lectures and language laboratory assignments. Courses are offered in American Sign Language, French, and Spanish.

Students planning to transfer to a four-year institution and major in a modern language should consult with a counselor regarding the transfer process and lower division requirements. Positions for which four-year graduates in modern languages are qualified are teaching, business, foreign services, law enforcement, nursing, hospitality services, and secretarial services.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Write clearly.
- Speak clearly.
- Employ vocabulary of the subject studied.
- Demonstrate active listening skills.
- Apply learned knowledge to new situations.
- Work effectively in group settings.
- Demonstrate knowledge of and respect for other cultures.

### FRENCH COURSES OFFERED BY THE DEPARTMENT OF MODERN LANGUAGES:

## FRENCH 101

### COLLEGE FRENCH I

5 UNITS

**PREREQUISITE:** None.

**LECTURE:** 5 hours per week.

Develops the ability to converse, read and write in French. The course includes the study of essentials of pronunciation, vocabulary, idioms and grammatical structures along with an introduction to the culture of French-speaking peoples. This course corresponds to two years of high school study.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

*CAN (California Articulation Number): FREN 2*

## FRENCH 102

### COLLEGE FRENCH II

5 UNITS

**PREREQUISITE:** FRENCH 101.

**LECTURE:** 5 hours per week.

Continues to develop conversational, reading and writing skills in French with special emphasis on past tense verbs, grammar, vocabulary expansion and cultural applications of the French language.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

*CAN (California Articulation Number): FREN 4*

## GEOGRAPHIC INFORMATION SYSTEMS

DIVISION: Science and Math  
DIVISION DEAN: Dan Bridges, Ph.D.  
DEPARTMENT HEAD: Todd Heibel, M.A.  
Chemistry 113  
(909) 384-8986  
DIVISION SECRETARY: Rose Garcia  
DIVISION OFFICE: Chemistry 121  
(909) 384-8645  
LIAISON COUNSELOR: Rafael Herrera, M.S.  
(909) 384-4404

### GEOGRAPHIC INFORMATION SYSTEMS CERTIFICATE

This certificate is designed to prepare students for entry-level employment in Geographic Information Systems [GIS] and automated mapping technology, utilizing earth resources data satellites, aerial photography, and computerized data banks of spatial data. Students working for certificates must have a basic knowledge of arithmetic, reading and writing in order to learn and work in the occupations they select.

REQUIRED COURSES:	UNITS
GIS 130 Introduction to Geographic Information Systems (GIS)	3
GIS 131 GIS Applications	3
GIS 133 GIS Cartography and Base Map Dev	3
GIS 135 Spatial Analysis with GIS	3
GIS 136 GIS for Science, Government and Business	3
Or	
GIS 137 Advanced GIS Applications	(3)
GIS 139 Global Positioning Systems (GPS) Field Techniques	1
Or	
GIS 150 GIS Internship	(1)
<b>TOTAL UNITS:</b>	<b>16</b>

**COURSES OFFERED BY THE DEPARTMENT OF GEOGRAPHIC INFORMATION SYSTEMS (GIS):**

**GIS 130  
INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS (GIS) 3 UNITS**

**PREREQUISITE: None.**  
**LECTURE: 3 hours per week.**

An introduction to the fundamentals of Geographic Information Systems (GIS) including the history of automated mapping. Includes a brief introduction to basic cartographic principles, an in-depth review of the hardware and software used in GIS, and various applications of GIS technology in environmental science, business and government.

*Associate Degree Applicable*  
*Course credit transfers to CSU and UC.*

**GIS 131  
GIS APPLICATIONS 3 UNITS**

**PREREQUISITE: CIT 101.**  
**DEPARTMENTAL ADVISORY: GIS 130.**

**LECTURE: 2 hours per week and  
LABORATORY: 2 hours per week.**  
Survey of the fundamentals of Geographic Information Systems (GIS) including hands-on experience in hardware and software elements used in GIS, vector-based data structures using ArcView, and raster-based data structures using ArcView Spatial Analysis Module.

*Associate Degree Applicable*  
*Course credit transfers to CSU for elective credit only.*

**GIS 133  
GIS CARTOGRAPHY AND BASE MAP DEVELOPMENT 3 UNITS**

**PREREQUISITE: GIS 131.**  
**LECTURE: 2 hours per week and  
LABORATORY: 2 hours per week.**

A comprehensive study of Geographic Information Systems (GIS) cartographic principles, data acquisition methods used in map production, and methods of base map development. Includes an in-depth study of cartography, such as history, principles, map projections, scales, and map accuracy; methods of data acquisition, such as basic principles used in remote sensing, aerial images and the use of Global Positioning System (GPS) in the field for map feature location; techniques of GIS base map development, such as scanning, digitizing and coordinate geometry; and the production of professional quality maps using Arc View software.

*Associate Degree Applicable*  
*Course credit transfers to CSU for elective credit only.*

**GIS 135  
SPATIAL ANALYSIS WITH GIS 3 UNITS**

**PREREQUISITE: GIS 131.**  
**LECTURE: 2 hours per week and  
LABORATORY: 2 hours per week.**

An introduction to spatial analysis including the use of the principles of statistics in analysis of geographically referenced data; sampling strategies for data used in Geographic Information Systems (GIS) using raster and vector data structures; comparisons of conventional and geostatistical estimation techniques; single and multi-layer statistical operations including classification, coordination, and modeling analysis. Emphasis on application and interpretation of spatial analyses and problems in spatial correlation.

*Associate Degree Applicable*  
*Course credit transfers to CSU for elective credit only.*

**GIS 136  
GIS FOR SCIENCE, GOVERNMENT AND BUSINESS 3 UNITS**

**PREREQUISITE: GIS 135.**  
**LECTURE: 2 hours per week and  
LABORATORY: 2 hours per week.**

An in-depth survey of the uses of Geographic Information Systems (GIS) techniques in science (geography, geology, oceanography, archeology and meteorology), government (city, county, state and federal) and business. Topics include data acquisition, accuracy, analysis, presentation techniques and legal issues for various GIS applications. Students produce a GIS project, including hardware and software requirements, methods of data acquisition, formulation of data standards, data structure, database features and attributes, metadata standards, methods of base map development, cost benefits analysis and generation of presentation-quality map layouts specific to their chosen GIS application.

*Associate Degree Applicable*  
*Course credit transfers to CSU for elective credit only.*

**GIS 137  
ADVANCED GIS APPLICATIONS 3 UNITS**

**PREREQUISITE: GIS 135.**  
**LECTURE: 2 hours per week and  
LABORATORY: 2 hours per week.**

Hands-on training in advanced applications of Geographic Information Systems (GIS) using ArcView and ArcInfo, and a review of Avenue programming for customizing ArcView. Add-on modules extend the analytical capabilities of ArcView and allow input of map features and conversion of feature themes from raster to vector. Includes spatial analysis of slope and aspect maps, neighborhood and zone analysis; problem-solving techniques for geographic networks (point to point routing) or closest points; and use of ArcView and ArcInfo software to produce professional quality documents for use in spatial analysis and decision-making.

*Associate Degree Applicable*  
*Course credit transfers to CSU for elective credit only.*

**GIS 139  
GLOBAL POSITIONING SYSTEMS (GPS)  
FIELD TECHNIQUES 1 UNIT**

**PREREQUISITE: None.**  
**LABORATORY: 3 hours per week.**

An introduction to the use of a hand-held Global Positioning System (GPS) unit in the field including terminology; hardware; basic techniques of determining location; completion of a traverse using a GPS and a topographic map; and applications of GPS data in Geographic Information Systems.

*Associate Degree Applicable*  
*Course credit transfers to CSU for elective credit.*

**GIS 150  
GIS INTERNSHIP 1 UNIT**

**PREREQUISITE: GIS 135.**  
**LABORATORY: 5 hours per week.**

A directed field study program in which students apply classroom instruction to real-world Geographic Information Systems (GIS) projects in a business or government agency. Students meet periodically with their advisor, complete interim reports and present a final report.

*Associate Degree Applicable*  
*Course credit transfers to CSU for elective credit only.*

## GEOGRAPHY

DIVISION: Science and Math  
 DIVISION DEAN: Haragewen Kinde, Ed.D.  
 DEPARTMENT HEAD: Todd Heibel, M.A.  
 Chemistry 113  
 (909) 384-8638  
 OTHER FACULTY: Robert M. Petersen, Ph.D.  
 DIVISION SECRETARY: Rose Garcia  
 DIVISION OFFICE: Chemistry 121  
 (909) 384-8645  
 LIAISON COUNSELOR: Rafael Herrera, M.S.  
 (909) 384-4404

The environmental science of geography examines both physical and cultural landscapes. Geography includes the study of all forces of nature and the consequences of those forces: the nature and interactions of the atmosphere and the land, plants and animals, the earth's waters, weather, climate, the earth's dynamic surface, landforms and soil, and the way people have inhabited and altered the earth by creating various forms of agriculture, language, religion, and cities.

Courses in geography fulfill the science requirement for the associate degree, prepare students for majoring in geography at a four-year institution, and supplement other studies for students interested in careers in environmental studies, education, engineering, and architecture. Students planning to transfer to a four-year institution and major in geography should consult with a counselor regarding the transfer process and lower division requirements.

Core competencies emphasized by courses in this department:

- Read and retain information.
- Employ vocabulary of the subject studied.
- Demonstrate active listening skills.

### GEOGRAPHY ASSOCIATE OF SCIENCE DEGREE

To graduate with a specialization in Geography, students must complete the following required courses plus the general breadth requirements for the Associate Degree (total = 60 units).

REQUIRED COURSES:	UNITS
GEOG 102 Cultural Geography	3
GEOG 106 Natural Resources and Conservation	3
GEOG 110 Physical Geography	3
GEOG 111 Physical Geography Laboratory	1
or	
GEOG 285 Honors in Physical Geography	(1)
GEOG 114 Weather and Climate	4
GEOG 120 World Regional Geography	3
Any Economics Course	(3)
or	
Any Statistics Course	(3)
or	
Any GIS Course	(3)
<b>TOTAL UNITS:</b>	<b>20</b>

## COURSES OFFERED BY THE DEPARTMENT OF GEOGRAPHY:

### GEOG 102 CULTURAL GEOGRAPHY 3 UNITS

**PREREQUISITE:** None.

**LECTURE:** 3 hours per week.

An introduction to the interrelationship of people and the land. Includes population trends, regional analysis and livelihood patterns. Emphasis on historical development and diffusion of agriculture, languages, religions, and cities.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

*CAN (California Articulation Number): GEOG 4*

### GEOG 106 THE ENVIRONMENT, NATURAL RESOURCES AND CONSERVATION 3 UNITS

**PREREQUISITE:** None.

**LECTURE:** 3 hours per week.

A non-traditional and revised examination of the origins, nature and restrictions relating to world resources in light of continuing expansion of demand for basic materials including energy, metals, water, open space, soils and biologic resources. Emphasis on value considerations and social institutions as they relate to allocation decisions and environmental regulation.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

### GEOG 110 PHYSICAL GEOGRAPHY 3 UNITS

**PREREQUISITE:** None.

**LECTURE:** 3 hours per week.

Basic physical elements of geography, especially climate, landforms, water, soils, native animal life and natural vegetation, and their Inter-relationships and patterns of distribution on a world basis.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

*CAN (California Articulation Number): GEOG 2*

*CAN (California Articulation Number):*

*GEOG 110 + GEOG 111 = CAN GEOG 6*

### GEOG 111 PHYSICAL GEOGRAPHY LABORATORY 1 UNIT

**COREQUISITE:** GEOG 110 (May be taken previously)

**LABORATORY:** 3 hours per week.

Laboratory companion for various lecture courses in geography. May be taken during the same semester as the lecture courses or be taken after completing the lecture course.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*

*CAN (California Articulation Number): GEOG 110 + GEOG 111 = CAN GEOG 6*

### GEOG 114 WEATHER AND CLIMATE 4 UNITS

**PREREQUISITE:** None.

**LECTURE:** 3 hours per week and

**LABORATORY:** 3 hours per week.

The earth's atmospheric phenomena with special reference to the causes and regional distribution of weather and climate, both past and present.

*Associate Degree Applicable*

*Course credit transfers to CSU and UC.*