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Bakersfield College reserves the right to modify its programs, tuition and fees, admission
and graduation requirements, schedules and other policies, procedures and regulations
stated in this catalog without notice.
GENERAL INFORMATION

ACADEMIC CALENDAR

FALL SEMESTER 1995 (Aug. 21—Dec. 22)
August 14 — Open Registration Begins
August 17 — Registration Ends
August 21 — Instruction Begins
August 21 — Late Registration Begins
September 1 — Last Day for a Refund for Semester Length Classes
September 4 — Labor Day Holiday
September 11 — Last Day to Add a Semester Length Class with
Approved Add Form
September 15 — Last Day to Withdraw From a Semester Length Class
Without Receiving a “W”
October 27 — Last Day to File for Graduation
November 10 — Veterans Day Holiday
November 22 — Last Day to Withdraw From a Semester Length Class
November 23-24 — Thanksgiving Holidays
December 15-22 — Final Examinations
December 22 — End of Fall Semester
December 25-January 15 — Winter Recess

SPRING SEMESTER 1996 (Jan. 16—May 23)
January 8 — Open Registration Begins
January 11 — Registration Ends
January 15 — Martin Luther King, Jr., Day Holiday
January 16 — Instruction Begins
January 16 — Late Registration Begins
January 26 — Last Day for a Refund for Semester Length Classes
February 5 — Last Day to Add a Semester Length Class with
Approved Add Form
February 8 — Last Day to Withdraw From a Semester Length Class
Without Receiving a “W”
February 9 — Lincoln Day Holiday
February 19 — Washington Day Holiday
April 1-5 — Spring Recess
April 26 — Last Day to Withdraw From a Semester Length Class
May 16-23 — Final Examinations
May 23 — End of Spring Semester
May 23 — Commencement

*SUMMER SESSION 1996 (June 10-July 18)
June 3 — Open Registration Begins
June 5 — Registration Ends
June 10 — Instruction Begins
June 10 — Late Registration Begins
June 12 — Last Day for a Refund for Summer Session Length Classes
June 13 — Last Day to Add a Summer Session Length Class with
Approved Add Form
July 4 — Fourth of July Holiday
July 15-18 — Final Examinations
July 18 — End of Summer Session

*Withdrawal deadline dates are based on days of attendance. Check with
the instructor or the Admissions and Records Office for a particular course.
Welcome to another exciting year at Bakersfield College!

The 1995-96 school year holds many treasures in store for students. The college is making impressive progress in a variety of areas that will offer a positive and lasting effect on you as you study and learn at BC.

Construction is the most obvious progression. The new Grace Van Dyke Bird Library and Technology Center will be completed this year. Also, a new wing has been added to the Math and Science Building to house the Allied Health program.

Technology will play an important role on campus as the new library utilizes an on-line public access catalog system to help you find books and research material quickly and easily. And, of course, the new Technology Center within the library will serve as the information hub and technological nerve center for the campus and the community.

Finally, a new college mission statement focuses the staff's already strong commitment to student success. It calls for Bakersfield College to "provide a learning environment that fosters respect for individuals and ideas and opportunities to develop the skills, knowledge, and attitudes required to be competent, self-sufficient and participating citizens of the world."

Exciting possibilities are ahead for you at Bakersfield College. Enjoy your year!

Cordially,

[Signature]

Richard L. Wright
President
AFFIRMATIVE ACTION/EQUAL OPPORTUNITY STATEMENT
In accordance with the requirements of the Civic Rights Act, Bakersfield College provides services and benefits to students regardless of race, color, national origin, sex, age, religion or handicap. The lack of English language skills will not be a barrier to administration and participation in vocational education programs. (*Title VI and VII of the Civil Rights Act of 1964, as amended; Title IX of the Education Amendments of 1972; and Section 503 and 504 of the Rehabilitation Act of 1973, as amended.*)

Additional inquiries regarding these laws and regulations may be directed to:

Vice President, Student Services  
McCuen Hall 3  
(805) 395-4204

Director of Personnel  
McCuen Hall 19  
(805) 395-4435

All persons have the right to seek admission to and complete an educational program at Bakersfield College. Interference with students' access and successful completion of their education by any person through unlawful discriminatory conduct will not be tolerated. The college will initiate disciplinary action against persons found to have interfered with a student's education through any means of illegal or immoral intimidation.

The Bakersfield College Reneguide sets forth a statement of Students' Rights and Responsibilities, including college grievance procedures. Students should also refer to this publication for further information.

Additional inquiries pertaining to federal, state, and local affirmative action and equal opportunity laws, and the governing board policies of Bakersfield College or Kern Community College District, may be directed to the following office:

Dr. David Scott  
Assistant Chancellor, Personnel Services  
Kern Community College District  
2100 Chester Avenue  
Bakersfield, CA 93301  
(805) 395-4106

ACCION AFIRMATIVA
De acuerdo con la legislacion de los derechos civiles, el Bakersfield College provee servicios y beneficios a sus estudiantes sin hacer caso a la raza, al color, al origen nacional, al sexo, a la edad, a la religion o a cualquier impedimento. La falta de habilidades en el ingles no sera un obstaculo para la admision y participacion en los programas de educacion vocacionales. (*Títulos VI y VII del Acto de Derechos Civiles de 1974; Título IX de los Enmiendas de Educación de 1972; las Secciones 503 y 504 del Acto de Rehabilitación del 1973.*)

Para preguntas adicionales acera de estas leyes y disposiciones, póngase en contacto con:

Vice Presidente, Servicios de Estudiantes  
McCuen Hall 3  
(805) 395-4204

Director de Personal  
McCuen Hall 19  
(805) 395-4435
TELEPHONE DIRECTORY

Administration
President ................................................. 395-4211
Vice President, Instruction ............................. 395-4535
Vice President, Student Services ..................... 395-4204

Admissions-Records
Admissions-Registration ................................ 395-4301
Transcripts .................................................. 395-4301
Registrar ..................................................... 395-4301

Financial Aids
Financial Aids ............................................. 395-4427
EOPS ......................................................... 395-4351

Campus Police
Security ....................................................... 395-4554

Student Services
Assessment Center ......................................... 395-4479
Athletic Director ........................................... 395-4266
Bookstore .................................................... 395-4506
Career Center ............................................... 395-4457
Chicano Cultural Center .................................. 395-4532
Counseling .................................................... 395-4421
Vice President, Student Services ..................... 395-4204
Delano Center .............................................. 725-8020
Health Services ............................................ 395-4336
Honors Program ............................................ 395-4427
International Student Center ......................... 395-4419
Instructional Television Program ..................... 395-4202
Kern Rideshare ............................................ 832-RIDE
Learning Center ............................................ 395-4433
Library ......................................................... 395-4461
Lost & Found ................................................ 395-4355
Martin Luther King, Jr. Center ......................... 395-4570
Placement-Employment .................................... 395-4559
Re-Entry Center ............................................ 395-4582
Scholarships ............................................... 395-4427
Student Activities ......................................... 395-4355
Test Bank Service Center ............................... 395-4085
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Community Services
Use of College Facilities ................................ 395-4518
Community Services Classes and Tours ............ 395-4137
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Ticket Office ............................................... 395-4326

Academic Offices
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Art .......................................................... 395-4404
Behavioral Science ....................................... 395-4511
GENERAL INFORMATION

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Chicano Studies ...................................................... 395-4537
Communications ..................................................... 395-4404
Computer Studies ..................................................... 395-4275
English ................................................................. 395-4585
Family & Consumer Education ................................. 395-4561
Health & P.E. .......................................................... 395-4266
Life Science ............................................................ 395-4401
Mathematics .............................................................. 395-4231
Music ....................................................................... 395-4404
Philosophy .............................................................. 395-4585
Physical Science ...................................................... 395-4224
Public Administration ............................................. 395-4481
Social Science .......................................................... 395-4584
Theatre Arts ............................................................ 395-4548
Weill Institute ......................................................... 395-4140
Individualized Business Education Center ............... 395-4160
Work Experience ...................................................... 395-4550

EXPLANATION OF COLLEGE TERMS

For those who have never attended college before, the following brief explanation of common terms used at Bakersfield College is provided.

A.A., Associate in Arts: General degree granted by California Community Colleges.

A.S., Associate in Science: General degree granted by California Community Colleges requiring significant work within a specific major.

Assessment: The process of collecting student information through standardized tests, academic transcripts, surveys, and interviews for the purpose of assisting students with the development of educational plans.

Bachelor's Degree: Degree granted by four-year colleges. Usually the Bachelor of Arts (B.A.) or the Bachelor of Science (B.S.).

Catalog Rights: Refers to the “right” of the student to elect to meet the graduation requirements in effect the academic year of first enrollment, as long as continuous enrollment is maintained, or at the time of graduation.

Class Schedule: The listing of courses including hours, instructor, and room assignments to be offered each semester.

Community Service Classes: Fully fee-funded avocational and recreational classes. These classes carry no credit value.

Credit Course: Courses for which units are granted.
Credit-No Credit Grading: A grading system allowing a course to be taken for a grade of Credit or No Credit rather than for a letter grade of A, B, C, D, F.

Electives: Courses elected by the student which do not fulfill any specific requirement but provide units toward the degree.

General Education: Certain groups of courses required of all degree candidates regardless of their major. These may differ for the A.A. and A.S. degrees and for transfer.

Grade Point Average (G.P.A.): The average of a student's grades.

Lower Division: The first two years of college work, i.e., freshman and sophomore years and/or courses. By law only lower division work can be offered at Bakersfield College.

Major: The major field of study a student plans to pursue, i.e., biology, nursing, etc.

Minor: The field of study a student plans to pursue in addition to the major but with less emphasis. A minor is not usually required.

Non-Credit (ungraded) Course: Course for which no units are given. Restricted generally to Senior Adult and Parent Education programs.

Placement: The process of advising a student to enroll into a particular course based on valid prerequisites, valid standardized tests, and other multiple measures.

Prerequisite: A requirement which must be completed prior to enrollment in a course. If required, it is listed in the course description.

Semester Unit: In general, a semester unit represents one hour of lecture or three hours of laboratory per week for a semester. Graduation requires 60 semester units. One semester unit is equivalent to one-and-a-half quarter units.

Student Education Plan: A plan developed for each student which identifies the student's educational objectives and the courses, services, and programs to be used to achieve them. These plans are to be on file in the Counseling Center.

Transcript (of Record): Copy of student's college record prepared by the Records Office.

Upper Division: The last two years of college work, i.e., junior and senior years and/or courses. Upper division work is not offered nor generally accepted in transfer at Bakersfield College.
GENERAL INFORMATION

THE COLLEGE
Established in 1913, the college is one of the oldest two-year community colleges in the nation. The initial program offered a one-year curriculum, and in 1915 the trustees of the Kern County High School and Junior College District authorized a second year of junior college and normal school courses. The college opened its present 153 acre campus on Panorama Drive in 1956. Bakersfield College has continued to grow and to meet the educational needs of Kern County, an area noted for its rich petroleum and agricultural industries.

ORGANIZATION
The college is operated by the Kern Community College District, formed in 1961. In 1967, Porterville College joined the district. Cerro Coso, serving Ridgecrest and the desert area, began operation in 1973 as part of KCCD. The district draws students from the Delano Joint Union High School District, the Kern High School District, the McFarland Unified School District, the Mojave Unified School District, the Muroc Unified School District (Boron and Desert High Schools), the Porterville Union High School District, the Tehachapi Unified School District, the Trona Joint High School District, and the Wasco Union High School District.

VISION
Bakersfield College, in partnership with others, will provide a learning environment that fosters respect for individuals and ideas and opportunities to develop the skills, knowledge, and attitudes required to be competent, self-sufficient, and participating citizens of the world.

MISSION
The mission of Bakersfield College is to focus on student success by providing quality instruction and services in an environment which values and supports learning, teaching, and scholarship. We measure our success by engaging in an active program of self-assessment and institutional research, modifying our programs to meet the changing needs of our students and community.

INSTITUTIONAL GOALS
- Maintain a balanced curriculum by offering courses that promote awareness of self, society and environment; career preparation; continued development and growth.
- Provide and maintain appropriate instructional resources and facilities.
- Develop the technological competencies that will enable students, faculty, and staff to perform their work and studies more effectively.
- Foster a climate of mutual trust and respect through open communication and shared governance.
- Provide support services that will help students reach their educational goals.
- Promote institutional effectiveness through a process of research, planning, resource management, and comprehensive program review.

BAKERSFIELD COLLEGE FOUNDATION
History and Purpose
The Bakersfield College Foundation exists to promote the general welfare of Bakersfield College. More specifically, the Foundation supports a comprehensive scholarship program to encourage worthy students, provides for additional educational equipment, assists with the development of college facilities and promotes the programs of the college. The Foundation is particularly proud of its substantial support of the President's Scholars Program whose purpose is to attract, and encourage through scholarships, the top high school graduates and re-entry students in the area.

The Bakersfield College Foundation was incorporated under the laws of the State of California in 1975. Its original capitalization was $75,000 generated by a transfer to the Foundation of a number of existing scholarship endowments. By 1993, the Foundation's assets had grown to $2,400,000 as a result of substantial legacies, additional contributions, and favorable investments. The Foundation is governed by a Board of Directors, and all
funds are subject to an annual independent audit. The Foundation, through its Articles of Incorporation approved by the State of California, is authorized to solicit funds, accept property and other gifts, and invest monies for the purpose of providing broad support to the college.

Contributions to the Bakersfield College Foundation may be made by gifts of cash, real or personal property, or securities; by provision of a will; by gifts of insurance policies; or by the establishment of trusts. Contributions may specify particular purposes or be made without restrictions of use. Those specifying particular purposes will be administered with meticulous attention given to the purposes specified. All donations to the Foundation are tax deductible to the extent allowed by law. Since financial circumstances of donors may vary considerably, it is recommended that those interested seek out professional tax counsel in order to acquire the maximum benefit from a gift to the Foundation.

Friends and supporters of Bakersfield College are invited to support the Foundation and its activities. The Foundation Offices are located at Bakersfield College, 1801 Panorama Drive, Bakersfield, California 93305, telephone (805) 395-4597.

PRECOLEGIALE COURSES PHILOSOPHY STATEMENT
Many students have the ability to succeed in college but for a variety of reasons may not yet have the necessary skills to do so. Therefore, the Bakersfield College staff determines the skills necessary for success in college-level courses and provides the appropriate courses which will help students develop those skills.

The precollegiate skills program at Bakersfield College has been carefully developed to help these students succeed in college. Therefore, when needed, the program is the final phase of an educational continuum which takes the student from elementary levels of reading, writing, and mathematics to entry-level college courses. To help the student, the staff must first assess the student’s level of skills in critical thinking, writing, reading, mathematics, and study techniques and thus determine whether assistance is necessary. When a student’s needs have been identified, the college will provide counseling to assist the student in developing an appropriate educational plan.

With some exceptions, state regulations set a maximum of 30 units for precollegiate basic skills courses taken by any student. If a student’s skills are such that more than 30 units will be required to reach college level, that student will be counseled regarding other possible ways to build those skills. The student may be assured, however, that Bakersfield College will coordinate carefully with other educational institutions so that the student can make a smooth transition at Bakersfield College into the program of his/her choice. Once students are properly placed in classes, they will have access to regular counseling to monitor and guide their progress.

The Bakersfield College precollegiate program seeks to speed students toward their goals as effectively and efficiently as possible; consequently, the Bakersfield College staff is dedicated to assisting this process in every possible way.

TWO CATEGORIES OF PRECOLEGIALE COURSES:
PRECOLEGIALE-DISCIPLINE SPECIFIC
These include courses that offer preparatory instruction for specific academic or vocational areas. They may incorporate basic skills instruction, but with direct application of the basic skills for those subject areas.

Precollegiate-Basic Skills
These include courses that teach fundamental skills in reading, writing, computation, and study skills which are applicable to any area of academic concentration.

Exempted from the 30-unit limitation referred to above are the following students: Those currently enrolled in one or more courses of English as a Second Language and those identified as having a learning disability.
GENERAL INFORMATION

ACCREDITATION
Bakersfield College, approved by the Chancellor of California Community Colleges, is officially accredited by the Western Association of Schools and Colleges. It meets all standards of the California State Department of Education and is listed in the Education Directory, Higher Education, Part 3, published by the United States Office of Education. The University of California, the California State University System and other colleges and universities give full credit for appropriate courses completed at Bakersfield College.

LEAGUE FOR INNOVATION
The Kern Community College District is a charter member of the League for Innovation in the Community College. League membership includes 18 community member districts in 14 states and one Canadian province. The districts include 46 public institutions.

Membership in the League constitutes a significant recognition of the Kern Community College District’s commitment to excellence in innovation and experimentation designed to enrich and improve all aspects of the district’s three colleges.

Bakersfield College has taken the leadership in several of the League-funded projects. By its active participation, this college reaffirms its dedication to providing the best possible educational program and the fullest utilization of its resources to serving the needs of Bakersfield and Kern County.

CONTINUING EDUCATION
Continuing education classes are offered by Bakersfield College at convenient times during the day and evening, both on and off campus. These are regular college courses, which carry the same requirements and credits as other courses. Many evening classes are offered one night per week for two or three hours, Monday through Thursday. Some courses are scheduled from 5:30 to 7 p.m., two days per week. Thus, a student may enroll in nine units and attend classes only two nights per week.

It is possible for a student to meet all requirements for graduation through continuing education classes. Adult education, non-credit and contract education courses are offered by the college to meet particular or special community needs.

INSTRUCTIONAL TELEVISION PROGRAM
Bakersfield College, as a member of the INTELECOM, offers a wide variety of telecourses for students. In addition to INTELECOM, a consortium of 29 Southern California community colleges, the college licenses and offers other telecourses through PBS. Students earn college credits and may view the programs and complete the study assignments at home. A mandatory orientation session, examinations, and review sessions are held at Bakersfield College. Further information regarding instructional television courses may be obtained from the Distance Learning Office, 395-4093.

SUMMER SESSION
The college also conducts a summer session with both day and evening classes. The class schedule includes many courses given during the regular session. For further information, write the Office of Instruction, 1801 Panorama Drive, Bakersfield, CA 93305, or phone 395-4535.

COMMUNITY EDUCATION AND SERVICES
The Community Education and Services program sponsors a variety of events. Community Education and Services offers many activities such as recreational classes, self and professional development seminars, planetarium lectures, and educational tours. The community service classes are offered without grades or credits and are self-supporting through the charge of a nominal fee to cover all costs of instruction.

LIBRARY
The Grace Van Dyke Bird Library provides access to information in a variety of ways. There are over 60,000 books in the collection, as well as over 300 different periodical titles and five different newspaper subscriptions. Automated CD-ROM database searches are also available.
Some of the other services available to all library users are:

- Individual carrels for quiet study
- Conference room
- Classroom
- Typewriters (fee for use)
- Photocopying (fee for use)
- Interlibrary loan
- Telephone reference service (395-4466)
- Videotapes for TV courses

General orientation sessions may be arranged with Reference Services. The Library also offers classes in information and research skills.

LIBRARY HOURS
Monday-Thursday — 7:45 a.m.-9 p.m.
Friday — 7:45 a.m.-4:30 p.m.
Summer Session and holidays as posted

JERRY LUDEKE LEARNING CENTER
The Learning Center, on the second and mezzanine floors of the Student Services building, is comprised of various learning devices and well-trained instructors and tutors. This well-equipped professionally-staffed center offers tutorial services, reading and writing classes, learning and study skills courses, open-entry math classes, a basic skills computer lab, and testing, evaluation, services, and courses for students with learning disabilities. For students who wish to improve their memory, note-taking, or test-taking skills, the Learning Center has short-term classes in these and other study skills subject areas.

Individuals who want to study mathematics may enroll in an open-entry/open exit math class in the Learning Center. The math lab offers courses in arithmetic, pre-algebra, elementary algebra and intermediate algebra. In the lab, students work at their own pace; they study and test independently in a pleasant and relaxing environment.

SUPPORTIVE SERVICES CENTER
The Supportive Services Center provides special services and equipment that will enable disabled students to participate in the mainstream of college programs and activities. These special services include counseling, registration assistance, prescriptive assessment, tutoring, mobility assistance, speech therapy, interpreters for the deaf, and readers for the blind. Special equipment includes wheelchairs, typewriters (Braille, large-print, electric), tape recorders, notetakers, books (Braille, large-print, tape), visual devices and adaptive computer equipment. All facilities are accessible and programs are tailored to meet individual needs.

ACADEMIC COMPUTING
Use of the instructional computers by students at Bakersfield College is encouraged. Access to academic computing services is a privilege enjoyed by all students, whether enrolled in a course involving computer use or by permission of the Director of Information Services.

Computer Studies
Some of the most promising career opportunities of the present and future are in the areas of computer systems analysis, programming, and operations. Bakersfield College offers courses in computer science and data processing for business, scientific/engineering and personal applications. Transfer Associate Degree, and certificate programs are available.

Academic Computing Support Services
Most of the academic departments at Bakersfield College use the computer directly in instruction. This includes programming instruction by the Computer Studies Department and Computer Assisted Instruction in areas as diverse as chemistry, English, and agriculture. This use is supported by Information Systems who aid faculty in the development of academic computing applications.

Information Systems
Information Systems directs the operation of the academic computing equipment and software at Bakersfield College. This equipment now includes one mainframe computer, one minicomputer and a substantial number of microcomputers and networks. Most college programs make use of this equipment.

Unauthorized access or use of academic computing facilities is in violation of Section 502.b-c of the California Penal Code. Offenders
will be disciplined and/or prosecuted in accordance with existing college policy and California law.

**USE OF COLLEGE FACILITIES**

Any group desiring to use facilities at Bakersfield College for other than instructional purposes should contact the Office of the Dean of Library Services/Facilities Planning, Lib 104 (Phone: 395-4518, fax 395-4397, profs:adrperry). Campus groups should make requests using profs and a form will only be required when the event involves excess costs. Community groups need to complete a facility request form and submit proof of insurance. Request forms can be requested and submitted using fax. The dean or secretary will assist you in scheduling facilities for lectures, seminars, meetings and conferences following the policies and fees established by the Kern Community College District Board.

**PLANETARIUM**

The BC Planetarium has served over 100,000 people. This unique educational resource has been utilized by schools throughout the county, as well as by many community groups. Several interesting illustrated lectures are available for groups of 35 to 65 people. Community Education and Services handles reservations for the planetarium and may be contacted by telephoning 395-4537.

**WEILL INSTITUTE**

The Weill Institute, at 21st and Chester in downtown Bakersfield, is centrally located and easily reached by public transportation. The Weill Institute is an off-campus facility where a wide range of classes are offered. It provides business and professional persons with a community college environment that offers job training opportunities with a variety of individualized, open-entry courses, short-term courses, and the traditional semester-length courses.

Career and vocational programs include word processing and secretarial, accounting and business math, management, marketing, small business, real estate, mathematics, and electronics. A variety of transfer and general education courses enable students to plan transfer programs and meet requirements for an Associate Degree. The Weill Institute features career academic counseling, financial aid services, and assessment testing.

**OPEN ENTRY/OPEN EXIT LABS**

The Weill Institute of Bakersfield College features open-entry/open exit labs in business math/accounting and office technology. Open entry labs allow a student to enroll in a class any day or evening throughout the school year and to finish a course any time during the school year. Many open-entry courses are short term only: six or nine weeks in length. Open-entry courses include: typing, filing, business English, machine transcription, spelling, shorthand, 10-key, business math, real estate math and accounting. Open-entry courses can be identified in the class schedule by a course number in the 200's. For example: BUSOT 252a is open-entry, Beginning Keyboarding; BUSAC 253a is open-entry Introduction to Accounting.

**DELANO CENTER**

Established in 1972, the Delano Center serves educational needs of students in Northern Kern County and Southern Tulare County. This outreach facility offers a wide spectrum of courses, including liberal arts transfer classes, graduation requirements and short term credit courses. Vocational career classes and programs emphasize the lifelong learning philosophy of the Kern Community College District. Classes meet afternoons and evenings for the convenience of students employed during the day. New student orientation, academic counseling, assessment testing and financial aid information are provided at the Delano Center.

**COOPERATIVE WORK EXPERIENCE EDUCATION**

Bakersfield College, in cooperation with business, industry, government and the community, makes it possible for students to earn elective credit toward a degree and/or certificate through employment experience. The student may elect the Alternate or Parallel Plan. Students selecting the Parallel Plan will be required to attend college and work in the same semester. Those selecting
the Alternate Plan will be allowed to work one semester and attend college the next. The college may grant credit to a student in an amount not to exceed four units per semester for part-time occupational work experience or three units per semester for general work experience under the Parallel Plan. Under the Alternate Plan, the college may grant credit to a student an amount of eight units per semester for full-time employment. Full-time and part-time summer work experience can also qualify for credit. Work experience may count toward graduation in all disciplines. Contact the Director of Cooperative Work Experience Education for further information.

CENTERS FOR BUSINESS, INDUSTRY AND GOVERNMENT (CBIG)
The Small Business Development Center Operated under grants from the U.S. Small Business Administration and other governmental agencies, this center offers free counseling to small business owners and individuals interested in starting a business in Kern, Inyo, and Mono Counties. Low-cost seminars are held on a regular basis for practical guidance in owning and operating a small business.

The Center for Professional Development Operating to meet Kern County’s employee training needs, this center can develop and implement fee-based, in-house training programs in a wide variety of areas including: management training, supervisory skills or specific technical vocational needs. Accelerated AA Degree programs are also available for corporations who wish to upgrade their employee’s education.
ADMISSIONS AND REGISTRATION PROCEDURES

Academic Eligibility
A high school graduate or anyone who has a Certificate of Proficiency may be admitted to Bakersfield College.

Any person 18 years of age or older, who is not a high school graduate, may be admitted if his/her previous training or experience indicates that he/she will profit from the offerings of the college. Such student must have the approval of the Director of Admissions and Records.

A high school student who qualifies for the "Concurrent Enrollment" program may be admitted on a part time basis upon the recommendation of a high school principal and with the approval of the Director of Admissions.

Bakersfield College will evaluate for transfer credit all lower division course work taken at an institution accredited by national and regional accreditation groups that have been recognized by the Council on Postsecondary Accreditation as meeting acceptable levels of quality and performance. Course work taken at other institutions may be recognized as evidence of competence for the student applying for Credit by Examination. Students from foreign institutions are referred to the International Education Research Foundation in Los Angeles, for transcript translation and evaluation. Official transcripts from other institutions must be on file in the Admissions and Records office before an Application for Admission may be processed.

Residence Eligibility
A "resident" is a student who has residence in the state of California for more than one year immediately preceding the residence determination date which is the day before the first day of classes.

A "district resident" is a resident who has residence within a community college district in the state. Any resident of the Kern Community College District may be admitted.

The resident of any California community college district may attend a community college in any other district in this state, subject to generally applicable admission criteria, and subject to any restrictions set forth in a notice of restriction issued by a district.

Determination of Student Residence
In order to determine a person's place of residence, reference is made to the following statutory rules:

1. Every person has, in law, a residence.
2. Any person who is married, or 18 years of age or older, and under no legal disability to do so, may establish residence.
3. In determining the place of residence the following rules are to be observed:
   (a) There can be but one place of residence.
   (b) A residence is the place where one remains when not called elsewhere for labor or other special or temporary purpose, and to which he/she returns in seasons of repose.
   (c) A residence cannot be lost until another is gained.
   (d) The residence can be changed only by the union of act and intent.
   (e) A man or a woman may establish his or her residence. A woman's residence shall not be derivative from that of her husband.
   (f) The residence of the parent with whom an unmarried minor child maintains his/her place of abode is the residence of the unmarried minor child. When the minor lives with neither parent, his/her residence is that of the parent with whom he/she maintained his/her last place of abode, provided the minor may establish his/her residence when both parents are deceased and a legal guardian has not been appointed.
   (g) The residence of an unmarried minor who has a parent living cannot be changed by his/her own act, by the appointment of a legal guardian, or by relinquishment of a parent's right of control, unless the student qualifies for the self-supporting exception.
In general, a resident has citizenship or permanent resident status in the United States and has established residence in California for at least one year immediately preceding the residency determination date (the day before the first day of classes). If you do not have citizenship or permanent resident status in the United States, or have questions regarding your status, please contact the Admissions and Records Office.

APPLICATION FOR ADMISSION
An application may be obtained from the Admissions and Records Office, located in the Administration building, at the Weill Institute or Delano Center. It must be filed in the Admissions and Records Office prior to registration. The application should include the prospective student’s Social Security number. Students who have not yet secured a Social Security number should take steps to do so several weeks in advance of the application deadlines.

A high school transcript and one transcript from each college attended must be on file in the Admissions and Records Office before the application may be processed.

STUDENT MATRICULATION PLAN

What is matriculation?
Every student should have an educational goal, a reason for going to college. Matriculation is the process that allows the college and you to form a partnership which helps you attain that goal. We ask you to commit yourself to an educational objective and we will commit ourselves to assist you to succeed. To ensure the success of the partnership:

The college agrees to:
- provide an admission process
- provide an assessment of basic educational skills and career goals
- provide counseling/advising for the development of an individual education plan
- provide quality instruction
- provide a wide variety of courses
- offer referral to support services as necessary
- follow up on student academic progress

The student agrees to:
- express a broad educational intent upon application for admission
- attend an orientation session
- complete the assessment test(s)
- declare a specific educational objective during the term after which you complete 15 units of course work
- attend classes regularly, complete assigned course work and seek out counseling services as necessary
- complete courses and maintain progress toward an educational goal as identified in your individual educational plan
- seek out support services as needed

Which students are involved?
Matriculation is a process designed to promote student success. All students are expected to participate in the matriculation activities listed below:

1. Orientation services which include information concerning College procedures, policies and requirements.
2. Assessment services which include the following:
   a. Administration of assessment instruments to determine student skills in reading, writing and mathematics.
   b. Assistance to students in the identification of aptitudes, interests and educational objectives.
3. Counseling/advising services which include the following:
   a. Counseling/advisement concerning course selection.
   b. Counseling/advisement concerning educational planning.
   c. Referral to specialized support services as needed.

The following students will be exempt from orientation, assessment, and counseling, however, an exempt student wishing to enroll in a course that has a test score prerequisite must participate in the college’s assessment of English and math skills:

1. Students who have completed an Associate Degree or higher (students must show proof)
2. Students who enroll in community service courses only.
3. K-12 students who concurrently enroll at the College.
4. Students who enroll in courses required to maintain or renew job-related credentials.
5. Students who enroll in fewer than seven units per semester for the purpose of personal enrichment, recreation, or improving job-related skills.
6. Students who have been accepted into the Registered Nursing, Vocational Nursing, or Radiologic Technology programs; Regional Fire Technology Academy or Peace Officer's Basic Training Academy.

A student may also decline to participate in the matriculation process, but in so doing relinquishes the right to participate in priority registration and may not be able to enroll in courses which have prerequisite requirements. (Information is available in the Admissions Office and the Counseling Center.)

**COURSE ADMISSION POLICY**

The policy of the college is that, unless specifically exempted by statute or regulation, every course, course section, or class, reported for state aid, wherever offered and maintained by the college, shall be fully open to enrollment and participation by any person who has been admitted to the college and, when applicable, a relevant program, and who meets established prerequisites.

**What are the rights of students in regard to matriculation?**

You may challenge or appeal any allegation of violation of matriculation regulations.

**You have the right to:**

1. Appeal a prerequisite course requirement because the required course is not available.
2. Challenge any prerequisite believed to be discriminatory.
3. Challenge any matriculation regulations/procedures that have the effect of being discriminatory based on how the services are applied to you.

4. Be provided alternative services for the matriculation process if necessary for ethnic and language minority students and students with disabilities.

Any challenge or appeal should be addressed to the Dean of Student Services.

**College Assessment Program**

Academic skills assessment is for any student who intends to work toward an Associate Degree, transfer to a four-year institution, enroll in classes which have prerequisites, or enroll for more than seven units of credit. The writing of an English essay is also required for recommended placement in an English composition course (English 1a, English 1, English 60, AC DV 68).

The Assessment Center coordinates the assessment program. Assessment testing is regularly scheduled, no appointment is necessary. A schedule of assessment dates, times, and locations will be provided upon filing for admission to the college. Assessment for students for whom English is a second language is also available through the Assessment Center. Information may be obtained at the Assessment Center or by calling 395-4479. Persons with disabilities who might require testing accommodations should contact the Supportive Services Center at 395-4334.

Academic skill assessment may be waived in two ways: 1) by providing proof of completion of 15 or more transferable general education courses from another accredited two-year or four-year college or, 2) by providing proof of eligibility for admission to a California State University with the appropriate combination of ACT and SAT scores and high school grade point average.

Students who wish to explore career options may obtain aptitude and interest assessment instruments in the Assessment Center.

**ASSESSMENT POLICY FOR LEARNING/PHYSICALLY DISABLED STUDENTS**

In compliance with federal and state laws, Bakersfield College assures each student an equal opportunity to demonstrate competency
or knowledge in a subject area at each point in the educational process. Students with disabilities are expected to demonstrate the same competency or knowledge as other students.

Accommodations are made on an individual basis in the method or format of examination. Such accommodations may include, but are not limited to, an extension of time, the use of a typewriter, the use of a computer, the use of a spell checker or calculator, the use of a tape recorder and, where appropriate to the disability, an alternative mode of assessment.

MINIMUM STUDY LOADS
Students must enroll in a minimum study load in order to meet certain qualifications such as:

1. Certification as a full-time student to the Department of Health, Education and Welfare: 12 units.
2. Approval by the Veterans Administration for training under Chapter 31, 32, 34, 35 or 106, Title 38 U.S. Code—

<table>
<thead>
<tr>
<th>Semester</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full time</td>
<td>12 units</td>
</tr>
<tr>
<td>Three-fourths time</td>
<td>9-11 units</td>
</tr>
<tr>
<td>One-half time</td>
<td>6-8 units</td>
</tr>
</tbody>
</table>
3. “F-1” Visa (foreign) student status: 12 units.
4. Eligibility to participate in intercollegiate athletics: 12 units (repeated courses, previously passed with a “C” or higher cannot be counted). Student athletes must maintain a “C” average (2.0 grade point average) or higher.
5. Eligibility to participate in student government as an office holder: 6 units.

REGISTRATION
Registration at Bakersfield College is conducted by touch-tone telephone. Telephone registration is available, by priority appointment, to continuing students who were enrolled for classes after the 30 percent course withdrawal date. It is also available to new and returning students who have completed orientation, assessment and counseling/advising, and filed the appropriate student information forms. Students must be officially registered before attending classes.

There is also an open, walk-in, registration period conducted approximately one week prior to the beginning of each semester.

Registration dates are indicated in the front of this catalog and in the class schedule.

YEAR ROUND TELEPHONE REGISTRATION, ADDS AND DROPS
Telephone registration is available all semester except for holidays, weekends and special dates. Please refer to the schedule of classes for the special dates telephone registration is not available for adds and drops.

FEES
Community College Enrollment Fees
The enrollment fee is $13 per unit, no maximum. Students with a Baccalaureate Degree, or higher, are assessed a fee of $50 per unit, no maximum. If you do have a Bachelor’s Degree, you may get an exemption from the $50-a-unit fee if you are 1) a dislocated worker; 2) a displaced homemaker; 3) receiving public assistance; or 4) an employee or volunteer of a public agency providing police, fire, corrections, probation, emergency medical or medical emergency dispatch service fulfilling state mandated training.

Exemption forms will be available at the Admissions and Records Office.

Student Health Fee
A $7.50 student health fee has been authorized by the Board of Trustees for all students attending classes on the main campus. The purpose of the fee is to make health-center services available to all main campus students and to provide greater health-care educational programming.

Health Fee Exemption Procedures
The following health fee exemptions are authorized by law:

1. Students who depend exclusively upon prayer for healing in accordance with the teachings of a bona fide religious sect, denomination, or organization;
2. Students who are attending a community college under an approved apprenticeship training program;
3. Employees of the Kern Community College District;
4. Low-income students;
5. Aid to Families with Dependent Children recipients;
6. Supplemental Social Security Income/State Supplementary Program recipients; and
7. General assistance program recipients.

Exemption will be provided with written proof of any of the above.

Student Center Fee
Bakersfield College students shall be assessed $1 per unit for courses on the main campus up to a maximum of $5 per fall semester and $5 per spring semester. The fee shall not be assessed for summer session enrollment.

Course Audit Fee
Students auditing credit classes shall be charged a fee assessed in the manner as an enrollment fee, unless enrolled in 10 or more units during that semester. Enrollment status may not be changed from credit to audit or from audit to credit, and priority in class enrollment is given to students desiring to enroll for course credit.

Non-Resident Tuition Fee
Non-resident students are required by state law to pay tuition. The tuition fee for non-resident students is $104 per unit up to a maximum of 15 units per semester.

Miscellaneous Fees
1. The Student Services Card may be purchased for a $10 fee.
2. Parking on the main campus and the Weill Institute is restricted to parking permit holders. A semester parking permit is $15.

The College Bookstore is open year-round except during college holidays. It is estimated that the cost of books and supplies will be $250 to $275 per semester for a 15-unit schedule.

Students must supply their own suits for physical education classes.

REFUNDS
Enrollment and Tuition Refunds
Enrollment and tuition fees will be credited to the student account, when applicable, for program changes through the first two weeks of the semester. In courses other than semester length, the Office of Admissions and Records should be consulted regarding withdrawal and refund deadlines.

To receive the enrollment or tuition refund, a student must apply for the refund in the Business Services Office before the end of the second consecutive semester of non-attendance. (Summer session is not considered a semester.)

Should the college cancel a class which a student is enrolled and there is a reduction in units which results in a lower fee, the student should request a refund through the Business Services Office.

Student Health Fee Refund
Health fees will be credited to the student account when applicable, if all classes on the main campus are dropped and an enrollment fee credit is generated by the transaction.

To receive the health fee refund, a student must apply for the refund in the Business Services Office before the end of the second consecutive semester of non-attendance. (Summer session is not considered a semester.)
ACADEMIC REGULATIONS

GRADING SYSTEM

Grades are earned and awarded in each course and are recorded on the student’s permanent record at the end of each academic term. Evaluation of student achievement will be made in relation to the attainment of the specific objectives of the course. At the beginning of a course the instructor will explain these objectives and the basis upon which grades are determined.

A student’s work is considered satisfactory when he/she maintains an average of “C” (grade point average 2.0) or higher.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A—Excellent</td>
<td>4 per unit</td>
</tr>
<tr>
<td>B—Good</td>
<td>3 per unit</td>
</tr>
<tr>
<td>C—Satisfactory</td>
<td>2 per unit</td>
</tr>
<tr>
<td>D—Passing, Less than Satisfactory</td>
<td>1 per unit</td>
</tr>
<tr>
<td>F—Failing</td>
<td>0 per unit</td>
</tr>
<tr>
<td>AU—Audit</td>
<td>0 per unit</td>
</tr>
<tr>
<td>CR—Credit</td>
<td>Not computed in GPA</td>
</tr>
<tr>
<td>NC—No Credit</td>
<td>Not computed in GPA</td>
</tr>
<tr>
<td>I—Incomplete</td>
<td>Not computed in GPA</td>
</tr>
<tr>
<td>W—Withdrawn</td>
<td>Not computed in GPA</td>
</tr>
<tr>
<td>IP—In Progress</td>
<td>Not computed in GPA</td>
</tr>
<tr>
<td>RD—Report Delayed</td>
<td>Not computed in GPA</td>
</tr>
</tbody>
</table>

AU — Audit

Students who have been admitted to the college may enroll in courses as auditors with the permission of the instructor and subject to the following provisions:

1. Priority shall be given to students who wish to take the course for credit.
2. A student in a course shall not be permitted to change from audit to credit status nor from credit to audit.
3. The cost to audit a class is the same as the cost for other classes.

Course Audit Forms may be obtained in the Office of Admissions and Records.

Credit — No Credit

Some courses are offered on a credit-no credit basis. Upon successful completion of such a course, unit credit will be awarded. However, courses taken on a credit-no credit basis are not used in the computation of a student’s grade point average. Regulations for such courses are:

1. A maximum of 12 units may be taken on a credit-no credit basis and applied toward the AA and AS degrees at Bakersfield College.
2. A maximum of three units per semester may be taken on a credit-no credit basis. Exceptions to this rule may be made by the Dean of Student Services in cases involving nursing and special remedial programs.
3. In courses in which credit-no credit is authorized, the credit grade is granted for performance which is equivalent to the letter grade of “C” or better.
4. Combination classes (credit-no credit or grades) must have an A, B, C, D, F and credit-no credit credit system.
5. The election of a class by credit-no credit shall be by petition filed with the Admissions and Records Office no later than the last day of the fourth week of the semester or the last day of the second week of summer session.
6. When a student has established the basis for grading as credit-no credit or a letter grade, he/she may not elect to change after the established deadline.
7. Courses in which credit-no credit grading may be used must be so designated by the department involved. A department may require majors to obtain letter grades in that department’s major subjects.

The following courses are approved for credit-no credit grading:

ACADEMIC DEVELOPMENT 68, 70a-e, 74, 75, 195, 201a, 201b, 222a, 281, 290, 292; ADMINISTRATION OF JUSTICE 1, 2, 3, 4, 5, 7, 9, 10, 16, 18; AGRICULTURE 10; ANIMAL SCIENCE 71; APPRENTICESHIP 60c, 60e, 60f, 60g, 60h, 60i, 60j, 65k, 65l, 65m, 65n, 65o, 65p, 65q, 65r, 65s, 65t, 65u, 65v, 65w, 65x, 65y, 65z; ART — all courses; BUSINESS 3; BUSINESS ACCOUNTING 257; BUSINESS ADMINISTRATION 18a, 18b; BUSINESS MANAGEMENT 50a, 51a, 51b, 51c, 70a-z; BUSINESS OFFICE TECHNOLOGY 256; BUSINESS REAL ESTATE 70abc; BUSINESS SMALL BUSINESS 54, 55, 56, 60, 71, 72, 73, 74; CHILD DEVELOPMENT 70b, 70c, 70d, 70e, 70f, 70g, 70h, 70i, 70j, 70k, 70l, 70m, 70n, 70o, 70p, 70q, 70r, 70s, 70t, 70u, 70v, 70w, 70x, 70y, 70z; COMPUTER STUDIES 5, 51a, 55a, 55b, 55c, 57a, 62a, 62b, 62c, 67a, 72a, 72b;
DANCE 6bLb, 6jd, 6md; ENGLISH 34, 55; HISTORY — all courses except 4a, 4b, 17a, 17b, 18a, 18b, 20a, 20b, 30a, 30b, 36, 38; HUMAN SERVICES 45; INDUSTRIAL TECHNOLOGY 50a; NURSING — all clinical components of nursing courses; ORNAMENTAL HORTICULTURE 2; PHILOSOPHY — all courses except Phil 9, 10, 32, 33, 37 (Philosophy majors may not take Philosophy courses for credit/no credit grading); PHYSICAL EDUCATION 3adp, 5wsb, 6a, 6b, 6bad, 6bb, 6bLb, 6ct, 6ctx, 6g, 6gi, 6hx, 6jd, 6Lg, 6m, 6md, 6pf, 6r, 6s, 6sc, 6sf, 6sk, 6skc, 6ski, 6t, 6ti, 6v, 6vi, 7b, 7w, 9s, 9t, 9ti, 32, 32s, 52; PHYSICAL SCIENCE 35e; POLITICAL SCIENCE — all courses except Political Science 1, 2, 3; RADIOLOGIC TECHNOLOGY 4a; SOCIOLOGY 45; SPEECH 3; STUDENT DEVELOPMENT 1, 13a, 14, 51, 53, 74i, 74m; WELDING 55a, 55b; WORK EXPERIENCE 250.

I — Incomplete
A grade of "I" indicates the student has not completed the requirements of the course. The instructor must submit a statement of the requirements for clearance of the incomplete and also indicate the grade to be assigned in lieu of the "I" if the requirements are not completed. An "I" must be made up no later than one year following the end of the term in which it was assigned. An "I" may not be assigned as a withdrawal grade. If the work stipulated is not completed within the time limitation, the grade assigned in lieu of the work being completed will be entered on the permanent record.

W—Withdrawn
The student has withdrawn from a course or has been dropped from a course by the instructor, as indicated in these regulations.

IP — In Progress
The "IP" indicates the course extends beyond the normal end of an academic term and work is in progress, or the course is listed as an open-entry/open-exit course, and has been approved by the instructor to register and complete course requirements in the succeeding semester in order to receive credit and a course grade. The grade and unit credit will appear on the student's permanent record for the term in which the course work is completed. The "IP" cannot be given more than twice for any particular course. If a student enrolled in an open-entry, open-exit course is assigned an "IP" at the end of an attendance period and does not re-enroll in that course during the subsequent attendance period, the instructor shall assign a grade (A, B, C, D, F, NC, or CR) to be recorded on the student's permanent record for the course.

RD — Report Delayed
The 'RD' is a symbol assigned by the registrar when there is a delay in reporting the grade of a student due to circumstances beyond the control of the student.

ACADEMIC HONESTY
The administration, faculty, and staff at Bakersfield College believe that students are entitled to the finest education that the College can make available to them. At the same time, however, a student's achievement and proficiency in subject matter must include the realization that there are standards of academic honesty which should prevail in all one's endeavors.

Accordingly, this realization further requires that each student exerts every effort to maintain these standards.

CHEATING AND PLAGIARISM
Source: Regulations at Cal State University, Long Beach, General Catalog, 1990-1991, p. 56.

Definition of Plagiarism
Plagiarism is defined as the act of using the ideas or work of another person or persons as if they were one's own, without giving credit to the source. Such an act is not plagiarism if it is ascertained that the ideas were arrived at through independent reasoning or logic or where the thought or idea is common knowledge.

Acknowledgement of an original author or source must be made through appropriate references, i.e., quotation marks, footnotes, or commentary. Examples of plagiarism include, but are not limited to, the following: the submission of a work, whether in part or in whole, completed by another, failure to give credit for ideas, statements, facts or conclusions which rightfully belong to another; in written work, failure to use quotation marks when quoting directly from
academic regulations

Definition of Cheating

Cheating is defined as the act of obtaining or attempting to obtain or aiding another to obtain academic credit for work by the use of any dishonest, deceptive or fraudulent means. Examples of cheating during an examination include, but are not limited to, the following: copying, either in part or in whole, from another’s test or examination; discussion of answers or ideas relating to the answers on an examination or test unless such discussion is specifically authorized by the instructor; giving or receiving copies of an examination without the permission of the instructor; using or displaying notes, “cheat sheets,” or other information or devices inappropriate to the prescribed test conditions, as when a test of competence includes a test of unassisted recall of information, skill, or procedure; allowing someone other than the officially enrolled student to represent the same. Also included are plagiarism as defined and altering or interfering with the grading procedures.

It is often appropriate for students to study together or to work in teams on projects. However, such students should be careful to avoid the use of unauthorized assistance, and to avoid any implication of cheating, by such means as sitting apart from one another in examinations, presenting the work in a manner which clearly indicates the effort of each individual, or such other method as is appropriate to the particular course.

Every instructor has the responsibility and authority for dealing with such instances of cheating and plagiarism as may occur in class. An instructor who determines that a student has cheated or plagiarized has a range of many available options which may be as severe as giving the student a failing grade for the assignment or for the entire course. Because the student has violated the standards of academic honesty, the instructor has the right to give an F for the assignment or for the course even though the student may have successfully passed the remainder of the assignment or the course. Furthermore, the student may face other penalties as stated in the college’s Student Conduct Policy. Finally, it must be understood that a student who knowingly aids in another student’s cheating or plagiarism—e.g. permitting the other student to copy a paper or examination question—is as guilty as the other of the offense.

A student charged with cheating or plagiarism is entitled to appeal that charge by means of the college’s Student Conduct Policies and Procedures.

Credit by Examination
Subject to certain conditions a student may petition for credit by examination after the completion of 12 semester units at Bakersfield College, providing the student is currently enrolled and in good standing. Credit by examination may be allowed for the Advanced Placement Program, the College Level Examination Program, for completion of specific Bakersfield College/high school competency agreements, and upon successful challenge by exam of a specific Bakersfield College course. Information on the policy and procedures may be obtained from the Office of Admissions and Records.

The student’s permanent record will be annotated to indicate the credit was granted by examination. Credit by examination may not be counted as part of any attendance period. A maximum of 30 units of credit by examination
may be applied to the associate degree. **Evaluations made and credit allowed by Bakersfield College are subject to review and evaluation by any college or university to which a student may transfer.**

**ADVANCED PLACEMENT PROGRAM**
The Advanced Placement (AP) is a program of college level courses and exams for high school students. Bakersfield College grants credit toward its Associate Degree for the successful completion of examinations of the Advanced Placement Program of the College Entrance Examination Board. Students who score a three, four or five may be granted up to six semester units of college credit per examination in accordance with established college standards and upon approval of the appropriate department chair. Additional information may be obtained from the Office of Admissions and Records.

A residency of 12 semester units of satisfactory work must be completed at Bakersfield College prior to granting of credit under this program. A maximum of 30 units of credit by examination may be applied to the Associate Degree. **Evaluations made and credit allowed by Bakersfield College are subject to review and evaluation by any college or university to which the student may later transfer.**

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

Credit for the subject area examinations will be awarded upon approval of the appropriate department chair. Subject examinations are equated with specific courses listed in the current college catalog. Further information may be obtained from the Office of Admissions and Records.

A residency of 12 semester units of satisfactory work must be completed at Bakersfield College prior to granting of credit under this program. A maximum of 30 units of credit by examination may be credited toward the Associate Degree. **Evaluations made and credit allowed by Bakersfield College are subject to review and evaluation by any college or university to which a student may later transfer.**

**MILITARY CREDIT**
Bakersfield College will grant credit to veterans for specific service experience and certain educational training completed while in the service. Evaluation of such experience and training will be made by the Admissions and Records Office. Credit evaluations will conform to the regulations set forth by the State Approval Agency of the California State Department of Education and the recommendations of the American Council on Education.

Evaluations made and credit allowed by Bakersfield College are subject to review and re-evaluation by any college or university to which the veteran may later transfer.

A residency of 12 semester units of satisfactory work must be completed at Bakersfield College prior to granting of credit under this program. **PROBATION**

**Academic Probation**—A student who has attempted at least 12 cumulative semester units shall be placed on academic probation when he/she has earned a cumulative semester grade point average below 2.0.

**Progress Probation**—A student who attempted at least 12 cumulative semester units shall be placed on progress probation when the percentage of all units for which entries of "W", "I", and "NC" reaches or exceeds 50 percent.

Students transferring from other collegiate institutions will be placed on probation according to these same standards.

Students on probation may be limited to specific courses and to the number of units for which they may register.
The academic status of each student is printed on the Student Grade Report, which is issued at the conclusion of each academic term.

REMOVAL FROM PROBATION
A student on academic probation for a grade point deficiency shall be removed from probation when the student's cumulative grade point average is 2.0 or higher.

A student on progress probation shall be removed from probation when the percentage of "W", "I", and "NC" units falls below 50 percent.

DISQUALIFICATION
Any student who is placed on academic probation for three consecutive semesters of enrollment shall be disqualified for admission to classes the following semester, unless during the last semester of enrollment, the student earned a grade point average of 2.0 or higher, in which case the student shall be placed on continued probation.

Any student who is placed on progress probation for three consecutive semesters of enrollment shall be disqualified for admission to classes the following semester, unless during the last semester of enrollment, the percentage of units with entries of "W", "I", and "NC" was less than fifty percent (50%), in which case the student shall be placed on continued probation.

REINSTATEMENT
A student who is disqualified may be conditionally readmitted the following semester upon petition to the Academic Standards Committee. A readmitted student may be restricted to specific courses or programs and a limitation may be placed on the number of units attempted. Readmission petition forms may be obtained in the Counseling Center or the Office of Admissions and Records.

COURSE REPEITION
Certain Bakersfield College courses are identified in the course description sections of the catalog as repeatable, with the number of times they may be repeated indicated. Other courses may be repeated once for credit if one or more of the following conditions exist:

1. A grade lower than "C" or its equivalent has been earned;
2. The previous grade is at least in part a result of extenuating circumstances; such as verified cases of illness, accidents, or other circumstances beyond the control of the student; or
3. A significant period of time has elapsed since the student previously enrolled in the course.

A student who has repeated a course under these conditions may file a petition with the Office of Admissions and Records to have only the highest grade used to calculate the cumulative grade average. The original and subsequent grades will remain a part of the student's permanent record.

The college can provide no assurance that repeated courses will be treated in a similar manner by other educational institutions.

ACADEMIC RENEWAL
A maximum of 20 units of substandard academic grades (D, F and NC) taken at Bakersfield College which are not reflective of a student's present demonstrated ability may be disregarded in the computation of the grade point average if all of the following conditions exist:

1. At least five years have elapsed since the course work to be disregarded was recorded;
2. At least 12 units of satisfactory course work (2.0 GPA) have been completed at Bakersfield College subsequent to the course work to be alleviated;
3. The student petitions in writing to the Dean of Student Services stating the reasons for requesting academic renewal;
4. The student states in the petition the specific courses to be considered under the academic renewal policy.

If approved, the substandard work will be disregarded in the computation of the grade point average and an annotation made on the permanent record. The permanent academic record shall remain a true and complete
academic history and the course work disregarded under this policy will remain on the permanent record.

Academic renewal may not be used to raise the GPA in order to qualify for graduation with honors. Academic renewal may not be applied to courses which have been used to meet graduation, certificate, and certification requirements.

CLASS ATTENDANCE
Regular class attendance is expected of all students enrolled in the College. It is especially important that students attend the first session of each class for it is at this time that instructors may distribute syllabi and course requirements, and explain what is expected in terms of attendance. Students enrolled in classes which are full may be dropped by the instructor if they do not attend the first class session. (See First-Day Drop Policy below.)

FIRST-DAY DROP POLICY
Because many classes become filled and are closed, and instructors often maintain waiting lists of students who wish to enter these classes, students in lecture and/or lab courses may be dropped if they do not attend the first class meeting without notifying the instructor.

Students in open entry courses may be dropped if they do not begin attending during the first week of classes.

WITHDRAWING FROM CLASSES
Students are responsible for officially withdrawing from any class or classes in which they no longer wish to be enrolled. Non-attendance does not release the student from this responsibility. After registration has been completed, and within the withdrawal date guidelines, students may drop from a class or classes through the telephone registration system, or by submitting a drop form to the Admissions and Records Office. Non-attendance does not release the student from this responsibility and may result in a failing grade being awarded.

Within the withdrawal date guidelines, instructors should drop students from a course for nonattendance, disruption, or failure to meet the requirements of the course.

A student who withdraws or is dropped from a semester-length course through the fourth week of the semester will not have the course included on the permanent record. A “W” will appear on the permanent record for courses dropped between the first day of the fifth week and the last day of the fourteenth week of the semester. No courses may be dropped after the last day of the fourteenth week of the semester. In courses other than semester-length, the instructor or Admissions and Records Office should be consulted regarding withdrawal date deadlines.

A student (or student’s representative) may contact the Admissions and Records Office regarding the procedure to withdraw after the final withdrawal date deadline if there are verifiable extenuating circumstances. This must be done by the last day of classes and prior to the beginning of the final examination period for the term in which the withdrawal will apply.

“W’s” are not used in calculating the grade point averages, but excessive “W’s” will be used as factors in progress probation and disqualification.

Students who find it necessary to withdraw from the college are required to return all checkout supplies, equipment, and library books; and pay all fines and debts owed the college.

ADDING CLASSES
After registration has been completed and prior to the beginning of the semester, students may officially add a class to their programs through the telephone registration system, or by submitting, in person, an approved Add Form to the Admissions and Records Office. Beginning with the first day of the semester, depending on the date and status of each class, written permission may be required in order to add classes. Students must be officially enrolled before attending any class.

ATTENDANCE
The attendance policy for each course is established by the instructor and communi-
Attendance policies will be reasonably related to course objectives, the requirements of institutional reporting, and legitimate absences. Instructors are responsible for maintaining accurate attendance and scholarship records.

While it is the responsibility of instructors to communicate attendance policies and to apply them equally to all students, it is the responsibility of students to know the policy in each of their classes and to be aware of their current attendance status. Students who have been absent from a class should notify the instructor of the reason for the absence. Absence in no way relieves students of responsibility for work missed. Excessive absence may result in the student being dropped from the course. Instructors should drop a student from a course when absences number the equivalent of two weeks of class recorded from the first day of instruction. If particular circumstances warrant and can be justified academically, faculty members may drop students after less than two weeks of absences.

Faculty members should give full consideration to excusing students from classes to participate in scheduled college activities, e.g. athletics, music, forensics, field trips, etc. The student must make arrangements in advance to make up the work to be missed. Students are responsible for officially withdrawing from any class or classes in which they no longer wish to be enrolled. Non-attendance does not release the student from this responsibility.

CONTINUOUS ENROLLMENT
To maintain catalog rights to graduation requirements, a student must remain in continuous enrollment at Bakersfield College. This means the student must enroll in at least one semester of each calendar year. Petitions for exceptions should be directed to the Vice President of Instruction (A-17).

FINAL EXAMINATIONS
A final examination or valuation is required in all courses. Instructors will give final examinations or evaluations at the regularly scheduled time.

GRADE REPORTS
Final grades will be made available to students by telephone as soon as possible after the end of each academic term. There will be no additional notification of grades made up or corrected.

GRADE CHANGES
The instructor of the course shall determine the grade to be awarded to each student. The determination of the student's grade by the instructor is final in the absence of mistake, fraud, bad faith, or incompetency.

A student who feels a grade is in error may request a review of the grade by the instructor. Errors may be corrected only by the instructor.

PRESIDENT'S SCHOLARS
The President of Bakersfield College invites qualified members of each entering freshman class to participate in the Honors Program using criteria set up by the Honors at Entrance Committee. These students are designated as President's Scholars. Scholarships based exclusively on academic performance are made available to President's Scholars and certain services and benefits are available to assist them in carrying out their academic program. Contact the Dean of Student Services or your high school counselor for more information.

PRESIDENT'S REENTRY SCHOLARSHIP PROGRAM
The President's Reentry Scholars are reentry students who have demonstrated, by their achievement at Bakersfield College, a commitment to academic excellence. Following one semester of full-time enrollment, eligible students are invited to participate in the program, which includes services and a monetary award. An explanation of eligibility requirements and information about the program are available through the Reentry Center.
STUDENT CONDUCT
Students are expected to observe reasonable standards of behavior. Failure to respect the rules of the college and the rights of others are sufficient reasons for disciplinary action according to the Student Conduct and Fairness Procedure.

The Fairness Procedures for students (grievance procedures) are published in the Renegade Student handbook or a copy may be obtained in the Dean of Student Services Office.

LIBRARY REGULATIONS
All registered students are encouraged to use the resources and services available in the library. Library cards are required and are issued at the circulation desk. Books may be checked out for three weeks if not on restricted reserve or reference. Fines are imposed for overdue materials. Information on library hours and regulations is given in the Student Handbook or may be obtained from a library staff member.

DEAN'S LIST
Special recognition is accorded students who maintain a 3.3 grade point average during a semester in which they accumulate at least 42 grade points. Students whose academic achievement is at this level are placed on the Dean's List and are given general recognition on campus and in the community.

GRADUATION WITH HONORS
Students whose cumulative grade point average is 3.5 or higher will be graduated with honors. Transcripts will indicate this honor.

CHANGES OF ADDRESS, TELEPHONE NUMBER OR NAME
Students must officially notify the Admissions and Records Office when there is a change in their address, telephone number or name. Students will be held responsible for all mail missed or for not receiving information.

COLLEGE TRANSCRIPTS
Upon written application by the student, a transcript of all work completed at Bakersfield College will be prepared and forwarded to any college, university, or individual designated by the student. Two transcripts are provided free, thereafter a fee of $2 is charged for each transcript. Transcript requests are processed within three working days. An additional fee of $5 is charged for processing a transcript "rush" request within one hour. To receive a transcript with same-day service, the request may be made 8:30 a.m. to 4 p.m. Requests for "rush" service made after 4 p.m. will be ready by 9:30 a.m. the following day.

Verification of Enrollment
The Admissions and Records Office will complete a verification of enrollment upon written request by the student. A fee of $2 is charged for each verification. The $2 fee is waived for financial aid academic progress verification.

STUDENT'S SCHEDULE OF CLASSES
At the time of registration each student is provided with a copy of his/her current schedule of classes. There is a $1 fee for each additional copy requested by the student.

HOLDS ON RECORDS AND REGISTRATION
A hold will be placed on a student's record whenever that student is delinquent or has failed to pay any debt owed to the college or failed to return any library books or other college property or equipment. Students with holds will not be allowed to: register; receive transcripts, certificates or diplomas; have transcripts forwarded; and/or receive other services related to student records. When the student has cleared the obligation with the college, the hold will be removed.
STUDENT SERVICES

COUNSELING/ADVISING

Bakersfield College counselors and advisors are available to assist students in a variety of ways. Services provided by the counseling/advising faculty and staff include, but are not limited to, the following:

EDUCATIONAL PLANNING

Bakersfield College counselors/advisors are available to assist students in selecting educational programs and/or individual academic courses. Counselors and advisors will also assist students in preparing to transfer to a four-year college or university and will help students improve study skills or may refer them for remedial or tutorial assistance.

CAREER COUNSELING

Counselors/advisors are available to assist students in exploring possible vocational directions and in learning about their relationship(s) to the world of work.

TRANSFER ADVISING

Support for Bakersfield College students to foster transfer opportunities to four-year colleges and universities is available on campus. Transfer Admission Agreements (TAA’s), college visitations, application workshops and financial aid workshops are scheduled throughout the year. Students are encouraged to explore the resources—including a library of catalogs and videos—available at the Transfer Services Office.

Specific course/program articulation information may be obtained from the College Articulation Officer, Office of the Dean of Planning and Research.

PERSONAL-SOCIAL COUNSELING

Counselors are available to assist students in examining concerns which interfere with personal development and growth particularly with respect to interpersonal relationships.

TESTING

Counselors will be able to suggest additional standardized testing, as needed, to assist students with various kinds of decision making.

REFERRALS

Counselors will provide students resource information and, on occasion, referrals to outside agencies for on-going assistance with personal emotional concerns.

CONSULTATIONS

Counselors/advisors will provide one-on-one and/or small group consultation to assure student success and to foster a positive learning environment among students, faculty and staff.

Counseling/advising is voluntary and students may select the counselor/advisor of their choice. Meetings with counselors or advisors are confidential; however, limited disclosure may be necessary if, in the professional judgment of the counselor/advisor, such is needed to prevent any individual from physical harm.

To talk with a counselor/advisor, please stop by the Counseling Center located in the Student Services Building or telephone 395-4421 or 395-4083. Counselors and advisors are also located in various other offices and centers on campus. Please check with the Counseling Center staff for specific information. Office hours are Monday-Thursday, 8 a.m. to 7 p.m., and Friday 8 a.m. to 5 p.m.

Counseling/advising services are available to currently enrolled students. These services are also available to prospective students who have completed the application for admission and the college assessment.

CALIFORNIA ARTICULATION NUMBER SYSTEM (CAN)

The California Articulation Number (CAN) System has been developed to cross reference courses among the participating community colleges, California State University, and the University of California campuses. Lower division, transferable Bakersfield College courses that are comparable to those at other schools have been articulated. This allows courses to then be assigned to a CAN designation which is listed in the Bakersfield College catalog; an example is ENGL 1a [CAN ENGL 2]. The CAN designation clarifies course acceptance at transfer institutions.
EXTENDED OPPORTUNITY PROGRAMS AND SERVICES (EOPS)
EOPS is a state-funded program that serves students from low-income, educationally disadvantaged backgrounds. Services include academic, career, and personal counseling, peer advising, financial aid advising, scholarship information, transfer assistance, grant checks and other support services. The CARE component offers additional grants and/or services to full-time students who are single parents, AFDC recipients, and have at least one child under the age of six. Participants must qualify for financial aid. The EOPS office is located in the Campus Center, Room 3.

HEALTH SERVICES
The Student Health Center is located in the concourse of the Library Building. Students are entitled to the services of the Health Center provided by a full-time registered nurse and a physician available part-time. There is student insurance coverage for campus-related injuries.

The goal of the Health Center is to help students maintain a state of optimum health, both mental and physical. This is achieved by emergency first aid treatment, counseling, physical consultation, and general medical and physical attention.

Information on Health Center hours may be obtained from the Health Center staff.

OFF-CAMPUS HOUSING
As a service to students seeking off-campus accommodations, the Housing Office keeps an up-to-date listing of rooms and apartments that various landlords submit to the college. Although the college does not list these accommodations as "approved housing," there is the expectation that both landlords and students will live up to their respective obligations. Students may use these listings in search of off-campus housing; but, since they change daily, it is impossible to mail such lists. These listings describe in detail the facilities being offered. Apartments, rooms, and room and board are available within walking or easy commuting distance of the college and some rooms are available with kitchen privileges. Students interested in further information may contact the Student Affairs Office, Campus Center 4.

KERN RIDESHARE
Kern Rideshare is a computerized carpool matching service designed to help Bakersfield College students with their transportation needs. Students who fill out an application listing home and school information will receive by mail a computerized matchlist of other students that live in their area with similar time schedules. Students who ride-shares benefit by saving time and money. For more information contact the Student Affairs office or Kern Rideshare, 832-RIDE.

VOCATIONAL REHABILITATION AID
In cooperation with the Department of Rehabilitation, Bakersfield College provides training programs for those having an employment handicap resulting from a physical, communication or emotional disability. The department may provide for financial aid covering the full cost of fees and books and other services. Any student who believes he/she may be entitled to this assistance should consult with or address an inquiry to the Department of Rehabilitation at 5251 Office Park Dr., Suite 100, (Tele: 395-2525) Bakersfield. Students applying for aid through the department are urged to report to the Supportive Services Center (FACE 16) as soon as possible prior to the opening of a school semester.

SOCIAL SECURITY
Students who qualify for educational assistance under the provisions of the Social Security Laws should contact the local Social Security Office for detailed information. The Admissions and Records Office confirms enrollments for Social Security purposes.

JOB PLACEMENT SERVICES AND PART-TIME EMPLOYMENT
The Job Placement Services assists students in finding part-time work while attending college, and upon graduation, assistance is available in locating full-time career opportunities. For those students seeking part-time employment, an effort is made to locate work that is related to their major or occupational goal. It is not always possible to secure employment.
immediately and new students who plan to be self-supporting should not begin their college courses without sufficient funds to cover the major expenses of at least the first semester.

Referrals for interviews are made on the basis of employer hiring requirements. Since employers rely upon the college to furnish them with information helpful in evaluating applicants, the Job Placement Center works in close cooperation with department chairpersons and instructors.

Regularly scheduled workshops are offered on job interview techniques, job search skills, and resume preparation.

Students desiring assistance in obtaining full-time career positions are urged to register with the Job Placement Services early during their year of graduation. The placement services are available at no charge to the student or employer.

The Job Placement Services is located in the Student Services Building.

VETERANS
Bakersfield College is approved as an institution of higher learning for the training of veterans and veterans’ dependents entitled to educational assistance. Veterans who have served in the armed services of the United States are eligible for admission. Veterans may arrange for training programs which will enable them to complete two years of college training, clear scholarship and subject deficiencies. Bakersfield College will grant credit to veterans for specific service experience and certain educational training completed while in service. Evaluation of such experience and training will be made by the Admissions and Records Office. Credit evaluations will conform to the regulations set forth by the State Approval Agency of the California State Department of Education and the recommendations of the American Council on Education.

Evaluations made and credit allowed by Bakersfield College are subject to review and evaluation by any college or university to which the veteran may later transfer. All educational opportunities and personnel services offered in the college are available to the veterans.

A veteran who plans to enter Bakersfield College under Chapter 31 is required to have the Veterans Administration approve his/her occupational choice prior to his/her enrollment in college.

Veterans who intend to enter Bakersfield College may secure necessary information regarding admission by calling or writing the Veterans’ Coordinator in the Admissions and Records Office.

STUDENT FINANCIAL ASSISTANCE
Students seeking financial assistance to meet the costs of education are encouraged to contact the Office of Financial Aid, located in the Student Services Building. A variety of grants, scholarships, loans and part-time employment opportunities are available for students who qualify on the basis of financial need, enrollment in six or more units leading to a degree or certificate, and satisfactory academic progress.

Applications and full information concerning the following programs can be obtained by personal contact or by phoning 395-4427.

Federal Pell Grant
Federal grant program based upon need and cost of attendance.

Board of Governors Waiver (BOGW)
State supported grant program to waive the enrollment fee for eligible California residents. The BOGW is available for students that have already qualified for other types of financial aid, and for students who have exceptionally low incomes including recipients of AFDC, SSI or General Assistance.

Extended Opportunity Program and Services (EOPS)
State supported grant program and/or academic support in the form of tutoring and special counseling for low-income students.

Scholarships
Cash awards provided by the Bakersfield College Foundation and local groups and
organizations for students who can demonstrate academic merit and/or financial need.

**Federal Supplemental Educational Opportunity Grant**
Federal program which provides additional grant assistance for students of exceptional financial need.

**Federal Stafford Student Loans**
State insured loans available from certain banks and lending institutions on long-term repayment plans.

**Short-Term Loans**
Loans of $100 or less for emergency needs repayable within 30 days at no interest.

**PART-TIME EMPLOYMENT**
Campus employment is available through Federal Work-Study, a federally funded program for students who can demonstrate financial need. Employment is used to fund college expenses.

Campus employment is also available for students with particular skills that are needed by various college departments. Financial need is not a criteria for this type of employment; however, applications must be made to the Office of Financial Aid.

Off-campus employment—See Placement Services and Part-time Employment.

**STUDENT ACTIVITIES AND ORGANIZATIONS**
The Associated Students of Bakersfield College is the student governing organization and has the major responsibilities for student government, campus organizations and the student activity program in general. The goals of this program harmonize with the goals of the college to provide opportunities for personal development, group cooperation, leadership development and the enrichment of college life.

The legislative power of the Associated Students is vested in a Student Senate whose members are elected by the students. All official action taken by the students of the college comes from the decisions of the Senate.

The Judicial Board—the Student Court—is composed of a Chief Justice and four Associate Justices with meetings held weekly. Duties of the court include checking the constitutional obligations of clubs and organizations, presiding over and supervising elections, and hearing cases involving violations of the ASBC Legal Code.

Bakersfield College has a broad club and organization program representing service organizations, religious affiliations, athletics and special interest groups. The Interclub Council (ICC) coordinates club activities through representation from each club and organization.

Students find that campus organizations stimulate new interests, provide opportunities to develop leadership qualities and enhance college and community life. In addition to general coordination, the Associated Students seek to encourage a worthwhile activity program. In particular the Associated Students stage Homecoming in the fall and Spring Fling in the spring, which are two of the major events held on the campus during the year. Students interested in any of the aforementioned clubs or organizations may obtain further information at Student Affairs and Housing Office, Campus Center, Room 4.

**STUDENT CENTERS**
**Chicano Cultural Center**
The Chicano Cultural Center at Bakersfield College offers a variety of support services for prospective and enrolled Chicano/Latino students. Recruitment, retention and educational goal attainment are the focus of programs offered by the center.

The center houses a collection of resource materials related to Chicano and Latino issues. The Chicano Cultural Center also encourages and supports the community of Bakersfield and Kern County in their postsecondary educational endeavors.

**The College Readiness Program**
Administered by the Chicano Cultural Center, the College Readiness Program is a week-long simulation of the actual conditions that students
face when they attend Bakersfield College. Assessment, assigned and monitored homework, study skills, math, English, counseling, physical education and vocational awareness are all parts of the program. Selection for the program is a step toward educational and career success.

Location: Business Building, Room 1.
Hours: 8 a.m. to 5 p.m., Monday-Friday
Phone: 395-4532

International Student Center
The International Student Center seeks to promote mutual respect and understanding for the diversity of cultures, languages and ideas on our campus and in our world. It is also a home away from home for interested students, particularly those whose first language is not English or those who are in the U.S. on visas.

Specific activities of the center include:
- advising in regard to academic, career, personal, visa and immigration educational requirements;
- placement testing for ESL classes; tutoring;
- transfer, career and retention activities;
- fostering of campus and community involvement; sponsorship of the Intercultural Student Association;
- providing referrals to schools and the community of student availability for tutoring and translation; and providing information for all students and staff on overseas opportunities and multi-cultural issues.

The center has a comfortable and informal lounge area where all are welcome to drop by. It is located in the Language Arts Building, Room 221.

Jerry Ludeke Learning Center
The Learning Center, located on the second and mezzanine floors of Student Services, provides the following services: self-paced mathematics courses, computer-assisted instruction, tutorial assistance, and media related to course work and other educational needs. Areas are available where students can review audio-visual materials or receive tutoring.

The Academic Development department, located in the Learning Center, also offers various language and study skills courses to assist students in reaching their educational goals. For example, AC DV 91 is recommended to students who read at Level 4 on the Bakersfield College Placement Assessment; students with a Level 3 classification in reading might work on their writing skills by enrolling in AC DV 68; and the short-term AC DV 70 series provides students reading at Level 2 or higher an opportunity to gain or improve study skills necessary to succeed in their other academic courses.

Students who have not met the BC graduation reading competency requirement should complete AC DV 50. (See course description for AC DV 50.)

Supportive services and special classes are also offered for students with learning and other disabilities.

Martin Luther King, Jr. Center
The Martin Luther King, Jr. Center serves as an academic support center for African-American students attending Bakersfield College. Its primary function is to aid in recruitment, retention and transfer.

The following are some of the services and activities of the center: academic, career and personal counseling; financial aid information; awarding of scholarships; study groups; tutoring; catalog library and other information on predominantly African-American colleges; transfer information for universities and colleges within California; a study area with personal computers available for student use; over-seeing the activities of the African-American Student Union.

The center’s lounge area provides a relaxing environment and the opportunity for social and cultural enrichment for African-American students attending Bakersfield College. The Martin Luther King, Jr. Center is located in Campus Center room 27 and is open daily. Calls are welcomed, 395-4750.

Re-entry/Resource Center
The Re-entry/Resource Center is the hub of activity for students returning to college after a number of years out of the classroom or job market. The center offers support, personal
and academic counseling, referrals, resource materials, workshops, as well as a relaxing atmosphere.

The center houses Gender Equity in Vocational Education, the SPACE Program (Single Parent Adult Choosing Education), the OPTIONS Program (Opportunity Program Training Individuals for Occupational and Non-traditional career Success), and the President's Re-entry Scholarship Program.

OPTIONS is a course (3 units) enabling students to evaluate their talents and interests, set meaningful goals for themselves and prepare for success in careers matched to their skills and aptitudes. Students are encouraged to investigate non-traditional career programs if their skills indicate potential success in a particular area.

The Re-entry/Resource Center, Humanities 11, is open Monday through Friday, 8 a.m. to 5 p.m. The center has a comfortable lounge where students and faculty drop-in for a cup of coffee before class or to study between classes.

**POLICY CONCERNING SEXUAL HARASSMENT**

Bakersfield College is fully committed to all federal, state, and local human rights and equal opportunity laws. *Title VII of the Civil Rights Act of 1964*, and *Title IX of the Educational Amendments of 1972* are strictly enforced. This legislation specifically prohibits sexual discrimination in employment, and educational programs and services respectively.

Students have the right to gain access to and complete an educational program at Bakersfield College. Interference with students' admission to and successful completion of their education by any person through unlawful sexual conduct will not be tolerated. The college will initiate disciplinary action against persons found to have interfered with a student's education through any means of sexual harassment or intimidation.

The Bakersfield College *Reneguide* sets forth a statement of Students Rights and Responsibilities, including the complete sexual harassment policy and grievance procedures. Students should refer to this publication for further information.
GENERAL EDUCATION

The General Education Program at Bakersfield College includes those courses required of all students, regardless of major or career goals, for the Associate Degree or for transfer to a four-year institution in California. However, the program is intended to be more than a requirement; it can be an exciting, dynamic, and essential part of a student's education.

The General Education Program has been designed to address the needs of men and women of all ages, abilities, ethnic identities, life styles, and goals. Through general education, the college seeks to foster knowledge, skills, and attitudes that will empower students to shape the direction of their lives and their environment. Its goal is to encourage students to strive for the highest quality of life, both at leisure and at work, for themselves, their families, and the larger community.

Recognizing the certainty of change, the college, through the General Education Program, hopes to prepare students to meet the challenges of the twenty-first century. Specifically, the program will assist them to develop and acquire the following:

Global Consciousness: an awareness of the complexity and diversity of the world, with its interplay of environmental, social, cultural, political, and economic forces, and an understanding of the unique role that each person plays in the system of relationships which extends from family to the international community.

Communication Skills: the ability to convey ideas, values, feelings, and knowledge accurately and effectively through written, oral, aesthetic, and technological media across personal, cultural, and national boundaries.

Adaptability: the willingness and confidence to accept and respond creatively to change, and the ability to analyze, think critically, solve problems, and resolve personal and interpersonal conflicts.

Responsibility: A respect for ethics, citizenship, and leadership, and a commitment to personal health and emotional growth which enable one to participate in life rather than react to it.

Knowledge: the body of information, reflecting both quantitative and qualitative reasoning, in the arts, sciences, and technology, their modes of inquiry and expression, their interrelationships, and the methods of accessing information in all areas of study.

The general education program thus seeks to assist students to succeed in the present and to inspire them to approach the future with a commitment to life-long learning.

Because certain basic competencies are necessary for an educated person, the General Education Program specifically requires competency testing (or course alternatives) in reading, written expression, and mathematics.

To facilitate transferability, a student's General Education Program should, with planning, parallel comparable programs at four-year institutions of higher education. However, the General Education courses may also be applied toward the Associate Degree or various certificate programs.

Specific Requirements

1. English ............................................. 3 units
   *Engl 1, 1a, ESL 1.

2. Speech ............................................ 3 units
   *Bus 3 (Spch 3); Spch 1, 2, 3 (Bus 3).

3. Social Sciences—at least one course must be from category (a)
   (6 units for A.A. degree; 3 units for A.S. degree) ............................................ 3-6 units

   (a) American History and Politics:
      *Hist 4a, 4b, 17a*, 17b*, 18a*, 18b*, 20a*, 20b*, 30a*- (Ch St 30a*) 30b* -
      (Ch St 30b*), 36*, 38;
      *Pol S 1.

   (b) Other Social Science Courses: Any listed above, or *Jrnl 1*, or *Econ 1,*
or Econ 2 or Pol S 3, or Pol S 16, or Bus A 20, or Bus 40.

4. Behavioral Sciences ....................... 3 units
   Anth 2**, 5*; Bus 58; Psych 1a, 1ah, 38 (St Dy 38); Soc 1, 30*, 36* (Ch St 36*); Ch Dy 13a; St Dy 38 (Psych 38).

5. Natural Sciences ......................... 3 units
   Life Sciences: An S 1; Anat 1; Anth 1; Biol 3a, 7, 11; Chem 49 (EHMT 49); Cpr S 1; EHMT 49 (Chem 49); HI Sc 1; Nutr 10; Fores 2; Soils 1.
   Physical Sciences: Astr 1; Chem 1a, 2a, 11; Geog 1, 1L; Geol 1a, 10, 10L; Phy S 10, 11; Physc 2a, 4a.

6. Humanities ................................ 3 units
   Arch 1.
   Art 1, 2ab, 2ef, 3ab, 3ef, 5ab, 6ab, 7ab, 9ab, 11ab, 17ab, 30a, 30b, 30c, 30d, 33.
   ASL 1, 2, 3.
   Engl 1b, 2, 5a, 5b, 10, 11, 12, 20ab, 21, 23, 27, 28, 29, 30a, 30b, 35, 41a, 41b, 41c, 41d.
   ESL 2, 22, 31*; Fren 1, 2, 3, 4; Germ 1ab, 2, 3, 4; Jpn 1, 2; Span 1ab*, 2ab*, 3*, 4*, 10*.
   Int D 15a, 22, 23ab.
   Music 1ab, 2, 5ab, 6ab, 9ab, 10a, 10b, 10c, 10d, 12a, 12b, 12c, 12d, 13a, 13b, 13c, 13d, 14a, 14b, 14c, 14d, 15a, 15b, 17a, 17b, 17c, 17d, 21ab, 22, 23*, 24*, 27.
   Phil 6a, 6b, 10, 12, 14, 30, 32*, 33, 37.
   Theat 1, 2ab, 4, 5, 6, 12a, 27, 28, 30, 31, 32, 35, 227, 227ss, 228.

7. Mathematics, Logic, Computer Science ........................................ 3 units
   C S 11, 12, 13.
   Engr 19f/19p.
   Math A, B, C, D, 1, 2, 6a, 16, 22, 200a, 200d, Tec M 52.
   Phil 7, 9.

8. Health Education ........................... 2 units
   H Ed 1, or completion of an approved Allied Health Program (RN, Rad T, or LVN).

9. Physical Education .......................... 2 units
   All activity courses numbered 3 through 33. (Students who have observed their 21st birthday or who have a medical excuse are exempt.)

* Course satisfies Cross Cultural Awareness Requirement
** Course satisfies the Multicultural Requirement.

Note: Students must complete at least one class identified with an (*) to satisfy the Cross Cultural Awareness Requirement OR one class identified with (**) to satisfy the Multicultural Requirement for graduation. The cross cultural awareness requirement will sunset at the end of the 1995-96 academic year.

Other courses satisfying the Cross Cultural Awareness requirement include: Psych 37.
Other courses satisfying the Multicultural Requirement include Ch Dy 32.

Multicultural Requirement
Bakersfield College requires students to take courses that are inclusive of multicultural perspectives found in American and global society. This requirement may be satisfied through studying either American ethnic groups or world cultures.
American Ethnic Groups and Subgroups: This requirement includes courses that lead to an understanding of ethnic groups and cultures in American society. Courses will focus on themes that address the theoretical or analytical issues relevant to understanding race, culture and ethnicity. This exploration can be accomplished through the study of, but not limited to, the following subgroups in American society: African Americans, Native Americans, Asian Americans, Chicano/Latino Americans, and European-Americans. These subgroups will be studied from integrative and comparative viewpoints as they relate to the larger context of American history, society and culture. Courses meeting this requirement should include the study of a minimum of three ethnic groups, at least two groups from non-European origin.

World Cultures: Students may develop a multicultural perspective through a study of world cultures and their relationship to America in a global society. The study of the history, society or culture of a foreign country and its relationship to America can demonstrate the interdependence of all nations in a global political, economic and social infrastructure. Courses meeting this requirement should include the study of a minimum of three different world cultures, at least one of which is not solely based in Western Civilization.

GENERAL EDUCATION OPTIONS FOR TRANSFER
Bakersfield College students transferring to a CSU or UC campus have three options for completing their General Education requirements. Each option offers advantages and disadvantages. These should be examined carefully to see which option is best for your educational plan. Bakersfield College counselors and advisors can help you select the right option.

Two of the primary choices for General Education are the California State University (CSU) A-E pattern and the Intersegmental General Education Transfer Curriculum (IGETC). Both the CSU and IGETC patterns should be seriously considered. The third option is the specific General Education pattern for each UC or CSU campus taken by students who begin their studies at that university. Few transfer students follow this option because the student must match the courses and pattern required at a specific university and BC cannot certify completion of this option.

California State University (CSU) Pattern
Advantages: Broader selection of courses compared to IGETC; students may receive certification for partial completion of the General Education Pattern (24-unit minimum). A “D” grade may be used for most G.E. courses if you have a “C” average in all General Education Courses completed. The American Institutions requirements may be double counted as General Education Courses (for all campuses except Chico State University).

Disadvantages: Will not satisfy General Education requirements for the University of California (UC).

Recommended for: Students who have definite plans to transfer to a CSU campus.

Requirements: A total of 48 semester units are needed to fully complete the CSU requirements. Of the 48 semester units, 39 can be completed and certified by Bakersfield College (minimum of 24 units). Students are strongly advised to complete all areas of the 39-unit pattern at Bakersfield College. The remaining 9 units must be completed in upper division work at the CSU campus. Students transferring to CSU Bakersfield are automatically certified. Students transferring to other CSU campuses must request certification.

INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM, (IGETC)
Advantages: Flexibility. IGETC will satisfy General Education requirements for both CSU and most UC campuses (UC Professional Schools and Revelle and 5th College at UCSD do not guarantee acceptance of IGETC).

Disadvantages: The entire pattern must be completed before transferring to receive certification of completion; more limited choice of courses; to use IGETC for a UC campus, students must have completed two years of foreign language in high school or
one semester at a community college. CSU requires Oral Communication instead.) A "D" grade is not acceptable for IGETC.

**Recommended for:** Students transferring to a UC campus (note exceptions above). Students who are considering both CSU and UC campuses.

**Requirements:** Complete entire pattern. Contact Admissions and Records Office for verification of IGETC prior to transferring.

**NOTE:** Some UC majors are very intensive in lower division requirements, therefore General Education requirements and patterns are modified or moved to upper division. If in doubt, check with a counselor or advisor.

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**GENERAL EDUCATION REQUIREMENTS OF FOUR-YEAR COLLEGES**

On the following pages are the general education requirements for the California State University System. The general education requirements of the several branches of the University of California are so varied that it is wise to study the catalog of the institution of transfer and to confer with a counselor regarding specific application of Bakersfield College courses toward the requirements.

**CALIFORNIA STATE UNIVERSITY — GENERAL EDUCATION REQUIREMENTS—1995-96**

**General Education:** To be eligible for graduation with a Bachelor's Degree from the California State University, a student must complete a minimum of 48 semester units of general education. A maximum of 39 lower-division general education units may be completed at Bakersfield College. The remaining 9 units are upper division courses and must be completed at the CSU.

**General Education Certification (GEC):** Certification of general education facilitates the transfer and evaluation process. Certification will be provided upon request, subject to the following conditions:

1. No fewer than 24 and no more than 39 units will be certified;
2. Only courses completed at BC will be certified; and
3. Only entire areas will be certified.
4. A minimum of 56 units and a maximum of 70 units may be transferred with a 2.0 GPA.

Students are strongly advised to complete all areas of the pattern below at BC. If course work from another college is to be used to meet general education requirements, it is important to meet with a counselor/advisor to plan an appropriate general education program.

**Certification should be requested through the Office of Admissions and Records with final transcripts.** Students transferring to California State University, Bakersfield are automatically certified. However, students transferring to all other California State University institutions must request certification.

“Double counting” of courses is permitted for General Education-Breadth and Major Requirements and prerequisites. However, “double counting” is not permitted within CSU General Education categories.

**A. Communication in the English Language and Critical Thinking:** A minimum of nine semester units in both oral and written communication in the English language, and in critical thinking and reasoning.

A.1. Oral Communication: **Spch 1.**

A.2. Written Communication: **Engl 1a.**

A.3. Critical Thinking: **Phil 7, 9; Engl 1b, 2 or Spch 5.**

**B. Physical Universe and Life Forms:** A minimum of nine semester units to include inquiry into the physical universe and its life forms, with some immediate participation in laboratory activity, and into mathematical concepts and quantitative reasoning and their applications. Choose one course from each area. One course must include a laboratory. Courses with laboratory activities are identified by an asterisk (*), see B.3.

B.1. Physical Universe: **Astr 1; Chem 1a*, 2a*, 11*, 49*; EHMT 49*; Geog 1, 1L*; Geol 1a*, 10, 10L*; Physc 2a*, 4a*; Phyl 10, 11*.**

B.2. Life Forms: **Anth 1; Anat 1a*; Bact 2*; Biol 3a*, 11*; Hi Sc 1*; Physl 1*.**

B.3. Laboratory activity identified by (*).

C. Arts, Literature, Philosophy and Foreign Language: A minimum of nine semester units among the arts, literature, philosophy and foreign languages. Every attempt should be made to include western and non-western cultures. Courses covering non-western cultures are identified by a star (★). At least one course must be taken from Arts and one from Humanities.

C.1. Arts: (Art, Dance, Music, Theatre): 
- Art 1, 2ab, 2ef, 3ab, 3ef, 4ab, 4ef, 5ab, 5ef, 6ab, 7ab, 9ab, 11ab, 12ab, 13cd, 14ab, 15ab, 15cd, 17ab, 30a, 30b, 30c, 30d, 33; 
- Dance 6bLb, 6jd, 15a, 22, 23a; 
- Music 1ab, 2, 5a, 5b, 5c, 5d, 6a, 6b, 6c, 6d, 9a, 10a, 10b, 10c, 10d, 12a, 12b, 12e, 12d, 13a, 13b, 13c, 13d, 14a, 14b, 14c, 14d, 17a, 17b, 17c, 17d, 21ab, 22, 23, 24, 27; 
- Theat 1, 2ab, 4, 5, 6, 12a, 15, 27, 31, 32, 35, 227, 227s.

C.2. Humanities: (Literature, Philosophy, Foreign Languages): 
- ASL 1, 2, 3; 
- Engl 1b, 5ab, 10, 11, 12, 20ab★, 23, 27, 28, 29, 30a, 30b, 35; 
- Fren 1, 2, 3, 4; 
- Germ 1ab, 2, 3, 4; 
- Jpn 1★, 2★; 
- Phil 6ab, 7, 9, 10, 12, 14, 30, 32★, 33, 37★; 
- Span 1ab, 2ab, 3, 4, 10.

D. Social, Political, and Economic Institution and Behavior: Historical Background: A minimum of nine semester units dealing with human social, political, and economic institutions and behavior and their historical background. Fulfillment of this requirement must include a reasonable distribution among the categories specified. Every effort should be made to include Western or Non-Western cultures. See "Notes" below for information concerning additional requirements. Courses covering non-Western cultures are identified by a star (★).

D.1. Anthropology and Archaeology: 
- Anth 2★, 5.

D.2. Economics: Econ 1, 2.

D.3. Ethnic Studies: Anth 5; Ch St 24, 30a, 30b; Hist 18a, 18b, 20a, 20b, 30a, 30b, 36; Soc 28★, 30, 36★; St Dv 28★.

D.4. Gender Studies: Ch St 24; Engl 23; Psych 38; Soc 28★, St Dv 28★, 38.

D.5. Geography.

D.6. History: Ch St 30a, 30b. Hist 4ab, 17a, 17b, 18a, 18b, 20a, 20b, 30a, 30b, 36, 38.

D.7. Interdisciplinary Social or Behavioral Science: Ch Dv 13a.


D.10. Sociology and Criminology: Ch St 36; Soc 1, 28★, 30, 36; St Dv 28★.

E. Lifelong Understanding and Self-Development: A minimum of three semester units in study designed to equip human beings for lifelong understanding and development of themselves as integrated physiological and psychological entities.

- Biol 7; Fam S 31; Fores 2; H Ed 1; Nutr 10; Ph Ed 3adp, 5, 6, 7, 9, 10, 11, 12, 13, 14, 16, 17, 18, 20, 22, 23, 25, 26, 27, 32, 33; Phil 12; Psych 1a, 30, 31; Soc 28 (St Dv 28); St Dv 13a, 28 (Soc 28).

Notes

Additional requirements: United States History, Constitution and American Ideals. The California Education Code requires that each student qualifying for graduation from a four-year institution with a bachelor's degree shall demonstrate competence in the areas of United States history and national, state and local government including rights and obligations of citizens. Students who wish to meet these requirements at Bakersfield College prior to transferring to a campus of the CSU may take up to six semester units (one course from Group 1 and one course from Group 2) to meet this requirement and may be credited toward satisfying General Education-Breadth Requirements at the option of the campus.

Group 1 courses which meet the American history requirement are: Ch St 30a, Hist 17a, 18a, 20a, 30a, 36; Pol S 1.
Group 2 courses which meet the national, state and local government requirement are:
*Ch St 30b; Hist 17b, 18b, 20b, 30b; Pol S 1.*

Intersegmental General Education Transfer Curriculum

The Intersegmental Committee of the Academic Senates approved the Intersegmental General Education Transfer Curriculum (IGETC) which was implemented fall 1991. The IGETC is a series of courses that community college students can use to satisfy lower division general education requirements at any CSU or UC campus. The IGETC will provide an option to the California State University General Education Requirements and will replace the University of California Transfer Core Curriculum.

The Intersegmental General Education Transfer Curriculum will permit a student to transfer from a community college to a campus in either the California State University or the University of California system without the need, after transfer, to take additional lower-division, general education courses to satisfy campus G.E. requirements.

Completion of the IGETC is not a requirement for transfer to a CSU or UC, nor is it the only way to fulfill the lower-division, general education requirements of the CSU or UC prior to transfer. Students may find it advantageous to take courses fulfilling CSU’s general education requirements or those of a particular UC campus.

IGETC certification is made by the Admissions and Records Office at the time transcripts are requested. Students must notify the Admissions and Records Office of coursework from another institution. Students are encouraged to contact the Admissions and Records Office for verification of IGETC certification prior to transferring.

*Courses may be listed in more than one area, but shall not be certified in more than one area.*

**Indicates that transfer credit may be limited by UC or CSU or both. Please consult with a counselor.

Area 1. **English Communication:** A minimum of 9 units required; choose one from each area. **Note:** Students transferring to the UC do not have to meet the Oral Communication requirement or the unit requirement of Area 1.

*Group A:* English Composition: 1 course, 3 semester/4-5 quarter units. *Engl 1a.*

*Group B:* Critical Thinking—English Composition: 1 course, 3 semester/4-5 quarter units. Courses must have English Composition as a prerequisite. *Engl 2; Phil 9.*

*Group C:* Oral Communication: 1 course, 3 semester/4-5 quarter units. *Spch 1.*

Area 2. **Mathematical Concepts and Quantitative Reasoning:** 1 course, 3 semester/4-5 quarter units. *Math 1, 2**, 6a**, 22**.

Area 3. **Arts and Humanities:** At least 3 courses, 9 semester/12-15 quarter units. At least one course from the Arts and one from the Humanities.

*Art courses:* *Art 1, 2ab, 3ab, 30a, 30b, 30c, 30d, 33; Music 1a-1b, 2**, 21a*, 21b, 23, 27; Phil 30; Theat 8**, 12a**, 31, 32**.

*Humanities courses:* ASL 2, 3; *Engl 1b, 5a, 5b, 20a, 27, 28, 30a, 30b; Fren 2**, 3*, 4*, Germ 2, 3*, 4*; *Hist 4a*, 4b**, 17a** **, 17b** **, 18a*, 18b*, 20a*, 20b*, 30a*, 30b*, 36*, 38*, Jpn 2; *Phil 6a, 6b, 10, 30, 32, 33, 37; Span 2ab*, 3*, 4*.**

Area 4. **Social and Behavioral Sciences:** At least 3 courses, 9 semester/12-15 quarter units. Courses from at least two disciplines or an interdisciplinary sequence.
**GENERAL EDUCATION**

Anth 2, 5; Ch Dv 13a; Ch St 24, 30a, 30b, 36; Econ 1, 2; Hist 4a*, 4b*, 17a**, 17b**, 18a*, 18b*, 20a*, 20b*, 30a*, 30b*, 36*, 38*; Pol S 1, 2, 3; Psych 1a**, 1ah**, 20, 40; Soc 1, 2, 20, 28, 30, 36; St Dv 28.

Area 5. Physical and Biological Sciences: At least 2 courses required, 7-9 semester/9-12 quarter units. One Physical Science course and one Biological Science course; at least one must include a laboratory, indicated by (L).

*Physical Science courses: Astr 1; Chem 1a(L), 2a(L)**, 11(L)**; Geog 1, 1(L); Geolla(L), 10**, 10(L)**; Physc 2a(L)**, 4a(L)**; Phy S 10**, 11(L)**.

*Biological Science courses: Anat 1(L); Anth 1; Bact 2(L); Biol 3a(L), 11(L); Physl 1(L).

Other:

**Language other than English.** Proficiency equivalent to two years of high school study in the same language. Students transferring to the CSU do not have to meet the requirement of a language other than English.

ASL 1
Fren 1, 2*, 3*, 4*.
Germ 1ab, 2, 3*, 4*.
Span 1ab, 2ab*, 3*, 4*.

**CSU Graduation Requirement in U.S. History, Constitution, and American Ideals** (Not part of IGETC; may be completed prior to transfer.)

CSU requires 2 courses to meet this requirement, one from Group 1 and one from Group 2.

*Group 1: Ch St 30a; Hist 17a, 18a, 20a, 30a, 36; Pol S 1*

*Group 2: Ch St 30b; Hist 17b, 18b, 20b, 30b; Pol S 1*

Note: Courses used to satisfy this requirement may not be used to satisfy requirements for IGETC. Please consult with a counselor for additional information.
GRADUATION

The Associate in Arts or the Associate in Science Degree shall be conferred by the Board of Trustees of the Kern Community District upon a Bakersfield College student who has satisfactorily completed the following requirements. These requirements are consistent with those prescribed by the Board of Governors of the California Community Colleges and the Board of Trustees of the Kern Community College District.

GENERAL REQUIREMENTS

1. Educational Planning: Completion of a designated course and a student education plan within the first 15 units at Bakersfield College. Choose from the following:

   - Agriculture: Agric 10.
   - Allied Health: Nurs 1, Rad T 1.
   - Applied Science and Technology: In Dr 1; Ind T 10.
   - FACE: Ch Dv 54; Fd Sv 1; Int D 1.
   - Foreign Language: ESL 11 (St Dv 11).
   - Physical Science: Arch 1; Engr 48.
   - Student Development: St Dv 1, 2, 4, 11 (ESL 11), 13a.

2. Minimum of 60 degree applicable units, with at least a 2.0 grade point average.

3. Minimum 12 units in residence completed at Bakersfield College.

4. Completion of the required courses of a designated major.

   A. For the Associate in Arts Degree:
      Completion of at least 18 units in a discipline (major course of study);
      OR
   B. For the Associate in Science Degree:
      Completion of at least 30 units in a discipline (major course of study).

Note: Major courses of study for the A.S. Degree must conform to the requirements outlined in Title V and must be approved as an appropriate major by the Curriculum Committee.

5. Competency Requirements:

   A. Composition: Completion of English 1 with a minimum grade of "C" and satisfactory completion of Competency Examination; or placement into English 1a by Essay Placement Test and completion of English 1a with a minimum grade of "D."

   B. Mathematics: One year of high school algebra or MATH A or TEC M 52 with a minimum grade of "C"; or an equivalent score on the Placement/Assessment.

   C. Reading: A satisfactory score on the Bakersfield College Placement/Assessment, a satisfactory grade in AC Dv 50, or a satisfactory score on the Bakersfield College Reading Proficiency Test.

6. Completion of General Education Requirements. (See General Education Requirements).

Completion of at least three units in each of the following areas: Composition, Speech, Social Science (six units required for the AA), Behavioral Science, Natural Science, Humanities, and Mathematics or Logic. At least one course meeting the cross cultural awareness requirement must be taken, or one course meeting the multicultural requirement must be taken.

Liberal Arts Major—Associate Degree

The Liberal Arts major at Bakersfield College is designed to provide students with the opportunity to earn an Associate in Arts degree in a broad area of study. The major is interdisciplinary and allows students to develop a variety of skills transferable to numerous occupations and fields of study. Its academic focus includes courses in language, philosophy, history, mathematics, literature, and science. Such courses are intended to provide general knowledge and to develop the intellectual capacities, such as reasoning and judgment, as opposed to professional or vocational skills. However, general educa-
tion-approved professional or vocational courses may be applied toward the liberal arts major. This major is suitable for transfer students preparing for upper division study in a variety of fields in the liberal arts and for those students undecided as to major or further study. Transfer students should complete either option 2 or 3 listed below. Students may complete the Associate Degree in Liberal Arts by any one of the following three options:

1. Completion of 60 degree-applicable units in the liberal arts and sciences including general education and graduation requirements for Bakersfield College;

2. Completion of 60 degree-applicable units including general education and graduation requirements for Bakersfield College and the California State University General Education Requirements;

3. Completion of 60 degree-applicable units including general education and graduation requirements for Bakersfield College and the Intersegmental General Education Transfer Curriculum (IGETC).

For further information, contact the Counseling Office, 395-4421.

LIBERAL STUDIES MAJOR
The Liberal Studies major is designed for students interested in teaching as a profession. Requirements for this major may be satisfied by various educational tracks. For specific information, students are advised to consult with a counselor.

ADDITIONAL ASSOCIATE DEGREES
An Associate in Arts or Associate in Science Degree will be awarded to those already possessing an associate or higher degree or degrees, subject to the following conditions:

1. All requirements in a different major from that of previous associate or higher degree(s) must be satisfied.

2. All general education requirements in effect at the time of beginning the new degree program must be satisfied.

3. At least 12 units, subsequent to the granting of any previous degree, must be taken in residence at Bakersfield College.

4. The student must be enrolled at Bakersfield College during the semester in which the degree requirements are completed.

5. Only one Associate in Arts Degree, except as required for licensing and/or retraining, may be earned at Bakersfield College. Exceptions to this policy must be approved by the Vice President of Instruction. Additional Associate in Science degrees may be earned.

TRANSFER
Universities and colleges prescribe their own standards of eligibility for transfer. Admission practices of four-year institutions are in the process of change and students expecting to transfer after one or more semesters at Bakersfield College should be careful to check entrance requirements. Bakersfield College students who maintain good grades and who complete the required courses may expect to make satisfactory transfers to the institutions of their choice. To achieve junior standing at the California State University or at the University of California systems, students must earn a minimum of 60 units of transferable credit.

For information about specific course/program articulation between Bakersfield College and four-year colleges and universities and/or local high schools, contact the Bakersfield College Counseling Center.

Students who wish to transfer before completing 60 units and were eligible for admission directly from high school, should be aware that some CSU and UC campuses will accept students for admission prior to the junior year on a space-available basis only.

Eligibility for the California State University System
Students may transfer a maximum of 70 community college transferable units to the California State University.

Students will qualify for admission as transfer students if they have a grade point
average of 2.0 or better in all transferable units attempted, are in good standing at the last college or university attended, and meet any of the following standards.

1. Meet freshman admission requirements (courses and test scores) in effect for the term for which application is made.

2. Eligible as freshman at the time of high school graduation and have been in continuous attendance in an accredited college since then.

3. Eligible as freshman at the time of high school graduation except for the subject requirements, have made up the missing subjects at a high school or college, and have been in continuous attendance in an accredited college since high school graduation.

4. Complete a minimum of 56 transferable semester units and meet the requirements listed below based on high school graduation date. Non-residents must have a 2.4 grade point average or better.

5. Applicants who graduated from high school 1988 or later:
   a. Complete all subject requirements in effect when graduating from high school (can use both high school and college coursework) OR
   b. Complete at least 30 semester units of baccalaureate coursework with a grade of C or better in each course. The 30 units must include all of the CSU general education requirements in communication in the English language and critical thinking (at least 9 semester units) and the requirement in mathematics/quantitative reasoning (usually 3 semester units) OR the Intersegmental General Education Transfer Curriculum (IGETC) requirements in English communication and mathematical concepts and quantitative reasoning.

   c. Applicants who graduated from high school prior to 1988 should contact the Bakersfield College Counseling Center for further information.

Eligibility for the University of California System
To qualify for admission to the University of California as a transfer student, students must meet one of the three sets of requirements described below. Students qualifying as California residents must have at least a 2.0 grade point average in all transferable coursework.

1. Students not eligible for admission to the University at the time of high school graduation because of not meeting the scholarship requirement, or not meeting the scholarship requirement and not completing all the required "a-f" subjects must:
   a. Complete 56 semester units of transferable college credit with a grade point average of at least 2.4, and satisfy either (b) or (c) below. Some UC campuses require a minimum of 60 units.
   b. Complete college courses in the high school subjects lacking, earning a grade of C or better in each one. UC will waive up to two academic years of the required high school coursework except in mathematics and English.
   c. Complete one college course in mathematics, one in English, and one selected from either U.S. history, laboratory science, or languages other than English. A grade of C or better in each course must be attained. The course in mathematics must assume a level equivalent to three years of high school mathematics (i.e. elementary and intermediate algebra, and geometry). The course may be a non-transferable two semester course in trigonometry, a transferable mathematics course that employs the topics of intermediate algebra, or a transferable
statistics course that has intermediate algebra as a prerequisite. All courses, with the exception of mathematics, must be transferable to UC.

2. Students eligible for admission to UC at the time of high school graduation are eligible to transfer if a C average in transferable coursework is maintained.

3. Students meeting the Scholarship Requirement, but not satisfying the Subject Requirement, must take college courses in the subjects missing to be eligible to transfer. Students must earn a grade of C or better in each of these required courses, and an overall C average in all transferable coursework. Students completing less than 12 semester units of transferable college coursework must also satisfy the Examination Requirement for freshman applicants.

Some campuses require either the Scholastic Aptitude Test or the American College Test from Community College transfers. Students are advised to consult with their counselor for information on these institutions.

Eligibility for Independent California Colleges And Universities
Students who transfer to independent colleges or universities are given academic credit for most, if not all, of their community college transfer units. Virtually all institutions give full credit for general education courses and usually for other courses designated for transfer by the community college.

Some colleges and universities stipulate a certain number of completed units before considering students eligible for transfer. They invite students to make an appointment with their Office of Admissions in order to discuss transfer opportunities.
Listed below are certificate and degree programs which Bakersfield College currently offers. A ✓ indicates that the suggested course of study may be found in the catalog. A ★ indicates that the student must consult the appropriate division chair for further information.

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<td>ENGLISH</td>
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PUBLIC ADMINISTRATION
Administration of Justice/Criminology/Police Science
Certified Fire Officer
Chief Officer Certification
Fire Technology
Law Enforcement

SOCIAL SCIENCE
Economics
History
Political Science

THEATRE ARTS
Technical Theatre
Theatre Arts

A.A. A.S. Certificate Degree Degree

INSTRUCTIONAL DIVISION

STRUCTURE

Allied Health Division
Nancy Perkins, Division Chair
Allied Health Department

Applied Science and Technology Division
Larry Fanucchi, Division Chair
Industrial Technology, including the following programs:
  Industrial Drawing
  Mechanized Agriculture
  Water Technology

Apprenticeship Program
Bill Demkey, Coordinator

Behavioral Science Division
Dr. James Whitehouse, Division Chair
Behavioral Science

Business and Public Administration Division
Faye Glessner, Division Chair
Business Education
Public Administration

Community Service Program
Pat Shaffer

Cooperative Work Experience
Charles West

Family and Consumer Education Division
Marilyn Worthington, Division Chair
Family and Consumer Education Department
Senior Studies

Fine and Performing Arts Division
Al Naso, Division Chair
Art
Communication
Music
Theatre Arts

Health and Physical Education Division
Jeffrey Chudy, Division Chair
Health Education
Physical Education

Independent Studies Program
Dr. Robert Allison
Math and Computer Studies Division
Elizabeth Rozell, Division Chair
Computer Studies
Math

Modern Languages Division
Dr. Terry Fleenor, Division Chair
American Sign Language
English
English as a Second Language
Foreign Language

Science, Engineering and Agriculture Division
Dr. Michael Rourke, Division Chair
Agriculture
Life Science
Physical Science

Social Science and Philosophy Division
Stephen Smith, Division Chair
Philosophy
Social Science

Student Services Division
Dr. Don Johnson, Division Chair
Academic Development
Student Development
PROGRAMS OF STUDY AND COURSE DESCRIPTIONS

The following section is a compilation of programs of study and course descriptions offered at Bakersfield College.

CAREER PROGRAMS

Bakersfield College offers two-year career programs in a variety of fields leading to immediate employment in such occupational fields as agriculture, business, home economics, industry and public service. These courses may be counted toward higher degrees at certain state colleges provided the student continues with advanced study in the same field. Students are urged to plan a program which leads to graduation from the community college with the Associate in Arts or Associate in Science Degree.

PRE-PROFESSIONAL PROGRAMS

Programs of study are also offered which lead to graduation from Bakersfield College and are intended to provide a basis for a student’s entrance into a senior college or university. The required and recommended courses are listed in terms of the major field of study to be emphasized. The student who plans to graduate from Bakersfield College and wishes to transfer to another college or university has four requirements to fulfill: (1) Clear up any entrance deficiencies in grades or subject matter if the senior college requires it. (2) Fulfill the general requirements of that senior college which are prescribed for all students. (3) Fulfill pre-major requirements, i.e., the lower division requirements for the upper division major. (4) Fulfill the general requirements of the local college. If a student plans to transfer prior to graduation, the first requirements listed above must be completed and progress on the other three must be made. In presenting the following outline of programs of study and majors, the college assumes that students in transfer programs will have completed a college preparatory program in high school.

CERTIFICATE OF COMPLETION

The Certificate of Completion documents the satisfactory completion of training sponsored by Bakersfield College in a specific area of study. Departmental faculty will define requirements.

CERTIFICATE OF ACHIEVEMENT

A Certificate of Achievement is awarded for the completion of a formal instructional program, with a minimum of 24 units, which is designed to give the learner the skills, knowledge and attitudes required for a specific field or endeavor. Specific requirements in a subject matter area will be developed by departmental faculty and approved by the Curriculum Committee.

ENGLISH, READING, AND MATHEMATICS CLASSIFICATIONS

Baccalaureate-level classes generally require Level 1 classification in reading, Level 2 classification in English, and/or mathematics as appropriate. Students with a reading level of 2 may enroll in baccalaureate-level classes with the permission of a counselor, advisor, or the instructor. Students with a reading level of 3 or 4 are not eligible for baccalaureate classes having a Level 1 prerequisite. Placement in Level 1, 2, 3, or 4 is based on student’s performance on the placement assessment (ASSET).

Note: English levels equate to Level 1 eligible for ENGL 1a, Level 2 eligible for ENGL 1, Level 3 eligible for ENGL 60, Level 4 eligible for AC DV 68. Reading levels equating to Level 1 meet the BC graduation competency requirements, Level 2 eligible for AC DV 50, Level 3 eligible for AC DV 62, Level 4 eligible for AC DV 91, and Level 5 referral for additional testing. Math levels have not been developed and assessment results give only score and course placement recommendation. Classification revisions from letter to numeric are as of fall, 1988. (Reading and English Levels A, B, and C are now referred to as 1, 2, 3 respectively.)

COURSE DESCRIPTIONS

The following abbreviations are commonly used in the course descriptions: lect (lecture); lab (laboratory); demo (demonstration), disc (discussion); CCS (Course Classification System); Repeat (Repeatability).

Hours given in parentheses ( ) are total hours for the course. Following the total hours is listed the number of hours required per week of lecture, laboratory, discussion, demonstration,
practical exercises, etc. For example: Hours: (108) 2 lect, 4 lab. When courses are offered in shorter time blocks than a full semester, the number of hours/weeks are stated.

Repeatability is the number of times a course may be repeated. If repeatability is not shown, course may not be repeated. See policy on course repetition.

Prerequisites are expressed as minimum requirements. For example, with a grade of "C" means that a grade of "C" or higher is acceptable. If a prerequisite is recommended only, it means that it is possible, but difficult, to successfully complete the course without that prerequisite. This applies to both course and skill (reading, writing, or mathematics level) prerequisites.

All prerequisites may be challenged and may be waived if the challenge is upheld. See a counselor or an instructor for specific information and procedures.

**COURSE CLASSIFICATION SYSTEM**
Bakersfield College uses a course classification system that serves to describe the total educational program of the community college as required by Title 5, Section 55001. Classes currently mandated by the state are designated as:

- **Liberal Arts and Sciences**
  - Precollegiate—Discipline Specific
  - Precollegiate—Basic Skills
  - Community Education—Personal
  - Community Education—Parenting
  - Community Education—Community and Civic Development

- **Occupational Education**

**CATALOG ABBREVIATIONS**

**Academic Development**
AC DV Academic Development

**Agriculture**
AG BS Agriculture Business
AGRIC Agriculture
AN S Animal Science
CRP S Crop Science
FORES Forestry
HORT Horticulture
NRM Natural Resources Management

**Allied Health**
ORN H Ornamental Horticulture
SOILS Soils

**Applied Science and Technology**
EMT Emergency Medical Care
MED S Medical Science
RAD T Radiologic Technology
NURS Nursing
V NRS Vocational Nursing

**Aero**
AC RF Air Conditioning and Refrigeration

**Automated Production and Manufacturing Processes**
APMPT

**Construction**
AUTO Automotive

**Electrical Technology**
ELE T Electrical Technology

**Industrial Technology**
EHMT Environmental Hazardous Materials Technology

**Mechanical Technology**
MEC T Mechanical Technology
MC AG Mechanized Agriculture

**Water Technology**
WELD Welding
WOOD Wood

**Art**
ART Art

**Behavioral Sciences**
ANTH Anthropology
BEH S Behavioral Science
HUM S Human Services
PSYCH Psychology
SOC Sociology

**Business Education**
BUS Business
BUSAC Business Accounting
BUS A Business Administration
BUSBF Business Banking and Finance
BUSMG Business Management
BUSMK Business Marketing
BUSOT Business Office Technology
BUSRE Business Real Estate
BUSSB Business Small Business
PROGRAMS OF STUDY AND COURSE DESCRIPTIONS

Communications
CMMN Communication
JRNL Journalism
SPCH Speech

Computer Studies
CS Computer Studies

English
ENGL English

Ethnic Studies
CH ST Chicano Studies
HIST History
SPCH Speech

Family and Consumer Education
CH DV Child Development
CON E Consumer Education
FACE Family and Consumer Education
FAM S Family Studies
FASH Fashions
FD SV Food Service
INT D Interior Design
NUTR Nutrition

Foreign Languages
ASL American Sign Language
ESL English as a Second Language
FREN French
GERM German
JPN Japanese
SPAN Spanish

Health and Physical Education
H ED Health Education
PH ED Physical Education

Independent and Special Studies
ANTH Anthropology
ART Art
BIOL Biology
FD SV Food Service
IND T Industrial Technology
MATH Mathematics
PHY S Physical Science
PSYCH Psychology
SOC Sociology
SP ST Special Studies

Life Science
ANAT Anatomy
BACT Bacteriology
HL SC Health Science
PHYSL Physiology

Mathematics
MATH Mathematics

Music
MUSIC Music

Philosophy
PHIL Philosophy

Physical Science
ARCH Architecture
ASTR Astronomy
ENGR Engineering
GEOG Geography
GEOL Geology
PHY S Physical Science
PHYSC Physics

Public Administration
ADM J Administration of Justice
COR A Correctional Administration
FITC Fire Technology

Senior Studies
SEN S Senior Studies

Student Development
ST DV Student Development

Social Science
ECON Economics
HIST History
POL S Political Science

Theatre Arts and Dance
DANCE Dance
THEAT Theatre Arts

Work Experience
W EXP Work Experience
TRANSFERABILITY OF BAKERSFIELD COLLEGE COURSES
Transfer courses in the Bakersfield College curriculum are generally numbered 1 through 49. Not transferable: Associate Degree only courses are for the primary purpose of meeting requirements for an Associate in Arts Degree or an Associate in Science Degree and certificate programs but may also be transferable to selected four-year institutions. Students are advised to consult with their counselor regarding these courses. Each course is listed as one of the following:

Not Transferable: Not degree applicable
Not Transferable: Associate Degree only
California State University (CSU) and private colleges
University of California System (UC), CSU and private colleges

ARTICULATION AND TRANSFERABILITY
Most of the courses listed in this catalog are articulated with specific courses at four-year colleges and universities. This means that those colleges and universities will accept the corresponding Bakersfield College course as equivalent to the course they offer.

In some cases Bakersfield College offers courses that are taught at the baccalaureate level but do not have a lower-division equivalent at one of the four-year schools to which BC students commonly transfer. Sometimes these courses are technical in nature and might even be offered in the upper division or graduate level at four-year schools. These courses are transferable but not articulated. They will be accepted for elective baccalaureate credit but do not satisfy a specific course equivalent.
Academic Development
ACADEMIC DEVELOPMENT

COURSE DESCRIPTIONS

The following abbreviations are commonly used in the course descriptions: lect lecture; lab laboratory; demo demonstration; Repeat repeatability (see policy on course repetition); CCS Course Classification System. Hours given in parentheses are total hours for the course. Hours lecture, lab, etc., are hours required per week usually. Prerequisites are expressed as minimum requirements. See page 47 for a complete explanation. (CSU) indicates transferable to California State Universities; (UC) indicates Transferable to University of California.

ACADEMIC DEVELOPMENT

AC DV 5 Tutor Training and Practicum (2 units)

Essential human relations skills and methods of effective tutoring, placing these skills into practice with tutees referred by the Tutor Coordinator. Student may be recommended by subject area instructor(s). Prerequisite: Minimum grade of “B” in subject to be tutored. Recommended: Reading Level 1. Evaluation by the tutor coordinator. Hours: (62) 1 lect/disc, 3 supervised tutoring for 16 weeks. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges. Elective credit only.

AC DV 5a Tutor Training and Practicum (1 unit)

The student will learn essential human relations skills and methods of effective tutoring and will put these skills into practice with tutees referred by the Tutor Coordinator. Student may be recommended by subject area instructor(s). Prerequisite: Minimum grade of “B” in the subject to be tutored. Recommended: Reading Level 1. Evaluation by the tutor coordinator. Hours: (32) 1 lect/disc, 1 supervised tutoring. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges. Elective credit only.

AC DV 50 Reading for Academic Success (3 units)

Recommended for students who have not met the reading competency requirements at entrance or for those who wish to improve their skills in academic reading. Emphasizes critical reading/thinking of college-level material (poetry, short stories, essays, textbook chapters). Focuses on application, analysis, synthesis, and evaluation in both oral and written form. Includes outlining, summarizing, speed and flexibility. Prerequisite: Reading Level 2 or Reading Level 1 or AC DV 62 with a minimum grade of “C.” Recommended: Concurrent enrollment in AC DV 201a. Hours: (54) 3 lect. CCS: Precollegiate — basic skills. Not Transferable: Not degree applicable.

AC DV 52 Basic Tools for College Success (3 units)

An opportunity for students to learn and adopt skills proven to promote success in college, including study skills and personal life skills. Increases the Level 2 reader’s probability of success in college. Recommended: Reading Level 3. Hours: (54) 3 lect. CCS: Precollegiate — basic skills. Not Transferable: Not degree applicable. Note: Not open to students with credit in ST DV 52.

AC DV 62 Developing Basic Reading Skills (3 units)

Recommended for students who need to improve vocabulary, reading rate and flexibility, and reading comprehension. Includes basic techniques of reading for study purposes and on-site library assignment. Practice in application and analysis level of thinking. Prerequisite: Reading Level 3 or ESL 51 with a minimum grade of “C” or AC DV 91 with a minimum grade of “C.” Recommended: Concurrent enrollment in AC DV 201a. Hours: (54) 3 lect. CCS: Precollegiate — basic skills. Not Transferable: Not degree applicable.

AC DV 63 Intermediate Vocabulary Development (3 units)

Strategies for vocabulary development including the use of context clues, word analysis, dictionary and thesaurus. Application of these strategies in materials written for college freshmen or mature adults, including textbooks, newspapers, magazines, and fiction. Instruction in distinguishing among commonly confused words and in recognizing multiple meanings, semantics,
denotation, connotation, and literal and figurative meanings of words. Emphasis upon using new words in students' own speech and writing, with due regard to usage and precise diction. Recommended: AC DV 91, or Reading Level 3. Hours: (54) 3 lect/disc. CCS: Precollegiate — basic skills. Not Transferable: Not degree applicable.

AC DV 64 Advanced Vocabulary Development (3 units)
Strategies for vocabulary development including the use of context clues, word analysis, dictionary and thesaurus. Application of these strategies in materials written for college freshmen or mature adults, including transfer-level textbooks, newspapers, magazines, and fiction. Instruction in distinguishing among commonly confused words, recognizing multiple meanings, semantics, denotation, connotation, and literal and figurative meanings of words. Emphasis upon using new words in students' own speech and writing, with due regard to usage and precise diction. Recommended: AC DV 62, 63, or Reading Level 2. Hours: (54) 3 lect. CCS: Precollegiate — basic skills. Not Transferable: Not degree applicable.

AC DV 68 Basic Writing Development (4 units)
Designed for students whose English placement tests indicate they are not ready for English 60. Emphasizes writing practice and the review of basic grammatical structures, writing mechanics, and proper usage. Recommended: Reading Level 3, English Level 4 or recommendation of a Bakersfield College English instructor. Bilingual/bi-cultural students should have successfully completed ESL 55ab. Hours: (72) 4 lect/disc. Repeat: 1. CCS: Precollegiate — basic skills. Not Transferable: Not degree applicable.

AC DV 70a–e Study Skills (0.5 unit each. Limit 2.5 units)
Students may take any or all of the five mini-courses offered. Each half-unit course is designed to give practical training in studying effectively for college classes. Topics: 70a—Time Management; 70b—Notetaking; 70c—Textbook Reading; 70d—Test Taking; 70e—Memory. (Credit/No Credit) Recommended: Reading Level 1 or Reading Level 2. Hours: (15) 2 lect, 3 lab arranged for 3 weeks for each 0.5 unit. CCS: Precollegiate — basic skills. Not Transferable: Not degree applicable.

AC DV 74 Paragraph Writing Strategy (2 units)
Emphasizes paragraph development, including writing a variety of paragraphs; expository, sequential, narrative, process, compare and contrast, and descriptive. Prerequisite: Referral by Learning Disabilities Specialist or Supportive Services Counselor. Recommended: Reading Level 4, English Level 3, recommendation of Strategies Model Instructor. Hours: (36) 2 lect/disc. Repeat: 1. CCS: Precollegiate — basic skills. Not Transferable: Not degree applicable.

AC DV 75 Sentence Writing Strategy (4 units)
Course emphasizes mastering basic English sentence structure and how to write four kinds of sentences: simple, compound, complex, and compound-complex. Prerequisite: Students must have recommendation of the Learning Disabilities Specialist or Supportive Services Counselor. Recommended: Reading Level 4, English Level 4, recommendation of Strategies Model instructor. Hours: (72) 4 lect/disc. Repeat: 1. CCS: Precollegiate — basic skills. Not Transferable: Not degree applicable.

AC DV 76 Specialized Learning Strategies (1.5 units)
Specifically designed for Supportive Services students. Emphasis is placed on teaching specific strategies to improve testing and proof-reading skills. Prerequisite: Students must have recommendation of the Learning Disabilities Specialist or Supportive Services Counselor. Recommended: Reading Level 4, English Level 3. Hours: (27) 1.5 lect/disc. Repeat: 1. CCS: Precollegiate — basic skills. Not Transferable: Not degree applicable.
AC DV 78 Understanding Basic Math
(3 units)
Recommended for disabled students (DSPS Program). Emphasis is on basic arithmetic operations including whole numbers, decimals, percents, and operations for circles, areas, perimeters and volume. **Prerequisite:** Recommendation of the Learning Disabilities Specialist or Supportive Services Counselor. **Recommended:** Reading Level 4, English Level 4. **Hours:** (54) 3 lect. **Repeat:** 1. **CCS:** Precollegiate — basic skills. **Not Transferable:** Not degree applicable.

AC DV 79ab Special Basic Skills Practice
(1-2 units)
Recommended for Supportive Services students. Emphasizes small group instruction in four reading strategies including SLANT (classroom participation) CHIPS and OVER (textbook surveys) and ASK IT (self questioning) **Prerequisite:** Referral by Supportive Services Counselor or Learning Disabilities Specialist. **Recommended:** Reading Level 5, English Level 5, Study Skills Level 3. **Hours:** (36-72) 4 lab for 9 weeks. **Repeat:** 1. **CCS:** Precollegiate — basic skills. **Not Transferable:** Not degree applicable.

AC DV 91 Communication Skills (3 units)
Provides classroom and prescriptive training in vocabulary development, listening, responding (both orally and in writing), basic study habits, and reading. Practice in knowledge, comprehension, and application levels of thinking. Supervised practice within class and lab periods. Individual prescriptions may include a broad range of communication skills or be limited to specific problems. **Prerequisite:** Reading Level 4. **Recommended:** English Level 4, concurrent enrollment in AC DV 201a. **Hours:** (90) 2 lect, 3 lab. **Repeat:** 1. **CCS:** Precollegiate — basic skills. **Not Transferable:** Not degree applicable.

AC DV 195 Word Processing for Students With Disabilities (1.5 units)
Fundamentals of word processing appropriate for students with learning disabilities or acquired brain injuries. **Prerequisite:** Evaluation by instructor or Learning Disabilities Specialist. **Recommended:** Reading Level 4, English Level 4. **Hours:** (54) 1 lect, 2 lab. **Repeat:** 1. **CCS:** Precollegiate — basic skills. **Not Transferable:** Not degree applicable.

AC DV 196 Strategic Learning System
(2 units)
Students learn to use a complete learning system that incorporates strategies for understanding, integrating and remembering information from texts and lectures as well as strategies to prepare for and take tests. **Prerequisite:** Referral by Learning Disabilities Specialist or counselor. **Recommended:** Reading Level 3, concurrent enrollment in the designated lecture course coordinated with AC DV 196. **Hours:** (42) 3 lect/disc for 14 weeks. **Repeat:** 1. **CCS:** Precollegiate — basic skills. **Not Transferable:** Not degree applicable. **Note:** Not open to students with credit in CH DV 196.

AC DV 201ab Communication Skills
(0.5-3 units, limit 8 units)
Individually prescribed lessons in spelling, reading, vocabulary development, study skills, critical thinking and/or English. Supervised repetition and practice in the laboratory on assigned tasks which may range from general communication skills to specific problems. **Hours:** (27-162) 1.5 lab per 0.5 unit. Open entry/open exit. **Repeat:** 3 or until 8 units is reached. **CCS:** Precollegiate — basic skills. **Not Transferable:** Not degree applicable.

AC DV 201A Reading

AC DV 201B Writing

AC DV 222A Tutoring in ADD (Auditory Discrimination in Depth)
(0.5-3 units. Limit 8 units)
Recommended for students who have an auditory conceptualization problem. Students will learn techniques to decode words. **Prerequisite:** Referral by Learning Disabilities Specialist or counselor. **Recommended:** Reading Level 4, English Level 4, student should have three or more errors on the extended LAC test. **Hours:** (16-96) 16 lab/tutoring per 0.5 unit. Open entry/open exit.
Repeat: 3, or up to 8 units as long as progress is demonstrated. CCS: Precollegiate — basic skills. Not Transferable: Not degree applicable. Note: Identical to AC DV 122a except that it is open entry/open exit within a semester, not beyond a semester.

AC DV 280 Supervised Tutoring (0 units)
Provides tutoring in various academic subjects, conducted in a designated learning center, to augment classroom instruction. Prerequisite: Referral by subject-area instructor or counselor. Recommended: Referral by self for specific remediation. Hours: (2-85) 2-5 individualized instruction and supervised lab. Open entry/open exit. Repeat: 3. CCS: Precollegiate — basic skills. Not Transferable: Not degree applicable.

AC DV 281abc Supervised Tutoring—
Computer (0 units)
Provides tutoring in various academic subjects, conducted in a computer lab, to augment classroom instruction. Prerequisite: Referral by subject-area instructor or counselor. Recommended: Recommended by self for specific remediation. Hours: (3-162) 3-9 individualized instruction and supervised lab. Open entry/open exit. Repeat: Unlimited. CCS: Precollegiate — basic skills. Not Transferable: Not degree applicable.

AC DV 292 Spelling
(0.5–1 units. Limit 2 units)
Recommended for students who have persistent spelling problems. Individually prescribed laboratory work with tapes and exercises. Hours: (18–36) 1 lab per 0.5 unit. Open entry/open exit within a semester but not beyond a semester. Repeat: 3 or until 2 units is reached. CCS: Precollegiate — basic skills. Not Transferable: Not degree applicable.

AC DV 290 Adaptive Computer Access Strategies for Disabled Students (0.5–2 units, limit 6 units)
Adaptive access strategies will be developed using a combination of hardware/software specifically designed for students whose disabilities limit access to mainstream courses. Prerequisite: Admission to Supportive Services Center Program, evaluation by Supportive Services counselor or Learning Disabilities instructor. Hours: (27-108) 1.5 to 6 lab by arrangement.
Repeat: 3, or until 6 units is reached. CCS: Precollegiate — basic skills. Not Transferable: Not degree applicable.
Agriculture

Agricultural Business Management
Agriculture
Animal Science
Crop Science
Forestry
Horticulture
Natural Resources Management
Ornamental Horticulture
Soils
The Bakersfield College Agriculture Department offers: Certificates of Achievement, Associate Degree Programs, and Transfer Program. All Agriculture programs should be carefully planned by the student with assistance from the Agriculture Department Advisor and departmental instructors.

Transfer Program
Students may use those units accumulated in the Associate Degree Programs for transfer to a four-year institution. Students must also complete the general education courses required for certification by the UC or CSU system.

CERTIFICATE OF ACHIEVEMENT PROGRAMS
These training programs are designed for those students who prefer career specialization courses and the earliest possible opportunity for job placement and/or the establishment of a self-owned/operated business. Students wishing greater in-depth preparation are advised to take more advanced courses, seek an associate degree, or transfer to a four-year institution.

Certificates are available in the following areas: Agricultural Business Management, Animal Science, Crop Science, Forestry and Ornamental Horticulture.

The student must complete a total of 30 units. Each program must be approved by the Agriculture Department advisor and Department Chairman.

AGRICULTURAL BUSINESS MANAGEMENT
MINIMUM UNITS REQUIRED IN DISCIPLINE: 21

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Electives — Minimum of 9 units

ANIMAL SCIENCE
MINIMUM UNITS REQUIRED IN DISCIPLINE: 28

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Electives — Minimum of 3 units

CROP SCIENCE
MINIMUM UNITS REQUIRED IN DISCIPLINE: 24

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Electives — Minimum of 6 units

FORESTRY
MINIMUM UNITS REQUIRED IN DISCIPLINE: 34

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<th>Required Courses</th>
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<tbody>
<tr>
<td>Course Number</td>
</tr>
<tr>
<td>AGRIC 10</td>
</tr>
<tr>
<td>AGRIC 248</td>
</tr>
<tr>
<td>AGRIC 249</td>
</tr>
<tr>
<td>AN S 6</td>
</tr>
<tr>
<td>FORES 1</td>
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<tr>
<td>NRM 1</td>
</tr>
<tr>
<td>NRM 2</td>
</tr>
<tr>
<td>SOILS 1</td>
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ORNAMENTAL HORTICULTURE
Minimum units required in discipline: 30

Required Courses

<table>
<thead>
<tr>
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<th>Units</th>
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<tbody>
<tr>
<td>AGRIC 10</td>
<td>Introduction to California Agriculture</td>
<td>3.0</td>
</tr>
<tr>
<td>AGRIC 248</td>
<td>Cooperative Work Experience Education</td>
<td>3.0</td>
</tr>
<tr>
<td>AGRIC 249</td>
<td>Cooperative Work Experience Education</td>
<td>3.0</td>
</tr>
<tr>
<td>ORN H 1</td>
<td>Introduction to Ornamental Horticulture</td>
<td>3.0</td>
</tr>
<tr>
<td>ORN H 2</td>
<td>Fundamentals of Nursery Management</td>
<td>3.0</td>
</tr>
<tr>
<td>ORN H 3</td>
<td>Landscape Installation and Maintenance</td>
<td>3.0</td>
</tr>
<tr>
<td>ORN H 4</td>
<td>Plant Propagation</td>
<td>3.0</td>
</tr>
<tr>
<td>ORN H 6</td>
<td>Ornamental Plant Identification —</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Ground Covers, Vines, and Dwarf Shrubs</td>
<td></td>
</tr>
<tr>
<td>ORN H 7</td>
<td>Ornamental Plant Identification —</td>
<td>3.0</td>
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<tr>
<td></td>
<td>Large Shrubs, Small Trees, Large Trees and Palm Trees</td>
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<td>Introduction to Soil Science</td>
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Electives — Minimum of 3 units

ASSOCIATE IN ARTS DEGREE PROGRAMS
Graduation requirements for an Associate in Arts Degree are found in the beginning of the catalog.

AGRICULTURAL BUSINESS MANAGEMENT
The Agricultural Business Management major is made up of agriculture and agricultural business courses pertaining to the agriculture industry.

Many jobs in agriculture require training in business courses such as accounting, typing and salesmanship. With a combination of agriculture and business courses, many employment opportunities are available.

Required Courses

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<tbody>
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<tr>
<td>AGRIC 249</td>
<td>Agriculture Leadership Training</td>
<td>2.0</td>
</tr>
<tr>
<td>AN S 1</td>
<td>Introduction to Animal Science</td>
<td>3.0</td>
</tr>
<tr>
<td>AN S 6</td>
<td>Applied Animal Nutrition</td>
<td>4.0</td>
</tr>
<tr>
<td>AN S 7</td>
<td>Livestock Diseases</td>
<td>3.0</td>
</tr>
<tr>
<td>CRP S 2</td>
<td>Forage Crops</td>
<td>3.0</td>
</tr>
<tr>
<td>SOILS 1</td>
<td>Introduction to Soil Science</td>
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</tr>
<tr>
<td>AN S 3</td>
<td>Sheep Production</td>
<td>3.0</td>
</tr>
<tr>
<td>AN S 4</td>
<td>Dairy Production</td>
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<td>Computer Application in Agriculture</td>
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</tr>
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</tr>
<tr>
<td>CRP S 1</td>
<td>Principles of Crop Production</td>
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</tr>
<tr>
<td>NRM 1</td>
<td>Range Management</td>
<td>3.0</td>
</tr>
</tbody>
</table>

ANIMAL SCIENCE
The Animal Science major prepares students for occupations in those areas of agriculture involving production of livestock.

Both the scientific and practical aspects of the production of beef, sheep, swine and dairy cattle are stressed in the day courses. Classes dealing with the production and care of horses are offered in the evening.

Required Courses

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</tr>
<tr>
<td>CRP S 2</td>
<td>Forage Crops</td>
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</tr>
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</table>

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<tr>
<td>AN S 4</td>
<td>Dairy Production</td>
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<td>CRP S 1</td>
<td>Principles of Crop Production</td>
<td>3.0</td>
</tr>
<tr>
<td>NRM 1</td>
<td>Range Management</td>
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</tbody>
</table>
CROP SCIENCE
This program provides instruction in the planting, growing, harvesting, and marketing of field, forage, and vegetable crops as well as irrigated and range pasture crops.

**Required Courses**

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<td>Principles of Crop Production</td>
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</tr>
<tr>
<td>CRPS 2</td>
<td>Forage Crops</td>
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<tr>
<td>CRPS 4</td>
<td>Vegetable Production</td>
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**Electives**

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<tbody>
<tr>
<td>AN S 1</td>
<td>Introduction to Animal Science</td>
<td>3.0</td>
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<tr>
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</tr>
<tr>
<td>AGRIC 249</td>
<td>Cooperative Work Experience Education</td>
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</tbody>
</table>

FORESTRY
The program provides a broad general experience in the arts and science to develop an individual with a well-rounded education, and a core of basic courses which furnish the student with a perspective of the scientific and professional area of forestry, natural resources, fisheries and wildlife. The pre-forestry, resource conservation and wildlife management program at Bakersfield College should conform to the recommended program as prescribed by the school to which the student wishes to transfer.

**Required Courses**

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<td>Agriculture Leadership Training</td>
<td>2.0</td>
</tr>
<tr>
<td>FORES 1</td>
<td>Introduction to Forestry</td>
<td>3.0</td>
</tr>
<tr>
<td>FORES 2</td>
<td>Natural Resources</td>
<td>3.0</td>
</tr>
<tr>
<td>FORES 3</td>
<td>Wildlife Management</td>
<td>3.0</td>
</tr>
<tr>
<td>FORES 5</td>
<td>Identification of California Wildlife</td>
<td>3.0</td>
</tr>
<tr>
<td>FORES 6</td>
<td>Forestry Skills</td>
<td>3.0</td>
</tr>
<tr>
<td>NRM 2</td>
<td>Parks and Outdoor Recreation</td>
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<td>AGRIC 248 or</td>
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</tr>
<tr>
<td>AGRIC 249</td>
<td>Cooperative Work Experience Education</td>
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</tbody>
</table>

HORTICULTURE
The Horticulture major prepares students for general fruit farming, positions in sales as vineyard foremen, as field and plant representatives, and for work in related agriculture fields as well as for transferring to a four-year college.

**Required Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
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<th>Units</th>
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<tr>
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<td>Introduction to California Agriculture</td>
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</tr>
<tr>
<td>AGRIC 49</td>
<td>Agriculture Leadership Training</td>
<td>2.0</td>
</tr>
<tr>
<td>CRPS 1</td>
<td>Principles of Crop Production</td>
<td>3.0</td>
</tr>
<tr>
<td>ORN H 6</td>
<td>Ornamental Plant Identification — Ground Covers, Vines, and Dwarf Shrubs</td>
<td>3.0</td>
</tr>
<tr>
<td>FORES 7</td>
<td>Wildland Fire Management</td>
<td>3.0</td>
</tr>
<tr>
<td>NRM 1</td>
<td>Range Management</td>
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**Electives**

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</tr>
<tr>
<td>ORN H 4</td>
<td>Plant Propagation</td>
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</tr>
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</table>

ORNAMENTAL HORTICULTURE
The Ornamental Horticulture major prepares students for all types of careers in the nursery and landscaping industries. Students may elect to secure employment at the end of the two-year program, or transfer to a four-year university.

**Required Courses**

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<tr>
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<td>ORN H 2</td>
<td>Fundamentals of Nursery Management and Plant Production</td>
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<td>Landscape Installation and Maintenance</td>
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<td>Ornamental Plant Identification — Ground Covers, Vines, and Dwarf Shrubs</td>
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(Continued next page)
ORN H 7 Ornamental Plant Identification — Large Shrubs, Small Trees, Large Trees and Palms 3.0
SOILS 1 Introduction to Soil Science 3.0

Electives
Course Number Title Units
AGRIC 248 or Cooperative Work Experience Education 3.0
AGRIC 249 Cooperative Work Experience Education 3.0
AG BS 2 Agricultural Economics 3.0
AG BS 4 Computer Applications in Agriculture 3.0

Pre-Veterinary Medicine
The veterinarian diagnoses and treats diseases and disorders of animals; determines the nature of disease or injury and treats animals medically or surgically; performs autopsies to determine causes of death; gives advice on care and breeding of animals. Some engage in general practice, some become involved in research and development, while others are active in such fields as consultation, teaching, technical writing, sales or promotion of commercial products, or provide technical services for commercial firms.

Required Courses
Course Number Title Units
AGRIC 248 or Cooperative Work Experience Education 3.0
AGRIC 249 Cooperative Work Experience Education 3.0
AN S 1 Introduction to Animal Science 3.0
AN S 6 Applied Animal Nutrition 4.0
BIOL 3a General Biology I 5.0
BIOL 3b General Biology II 5.0
CHEM 1a General Chemistry 5.0
CHEM 1b General Chemistry and Chemical Analysis 5.0
CHEM 8 Elementary Organic Chemistry 3.0
CHEM 9 Organic Chemistry Laboratory 3.0
ENGL 1a Expository Composition 4.0
MATH 22 Elementary Probability and Statistics 5.0
PHYS 2a General Physics — Mechanics and Heat 4.0
PHYS 2b General Physics — Sound, Light, Electricity, Magnetism, Modern Physics 4.0
ENGL Approved Course 3.0
SPCH Approved Course 3.0

Agricultural Business Management
Minimum units required in discipline: 31

Suggested Courses
Course Number Title Units
AGRIC 248 or Cooperative Work Experience Education 3.0
AGRIC 249 Cooperative Work Experience Education 3.0
AG BS 2 Agricultural Economics 3.0
AG BS 4 Computer Applications in Agriculture 3.0
AGRIC 10 Introduction to California Agriculture 3.0
AN S 1 Introduction to Animal Science 3.0
AN S 6 Applied Animal Nutrition 4.0
AN S 7 Livestock Diseases 3.0
CRP S 1 Principles of Crop Production 3.0
CRP S 2 or Forage Crops 3.0
CRP S 4 Vegetable Production 3.0
SOILS 1 Introduction to Soil Science 3.0

Animal Science
Minimum units required in discipline: 31

Suggested Courses
Course Number Title Units
AN S 1 Introduction to Animal Science 3.0
AN S 6 Applied Animal Nutrition 4.0
AN S 7 Livestock Diseases 3.0
AGRIC 10 Introduction to California Agriculture 3.0
AGRIC 49 Leadership Training 2.0
AGRIC 248 or Cooperative Work Experience Education 3.0
AGRIC 249 Cooperative Work Experience Education 3.0
AG BS 2 Agricultural Economics 3.0
AG BS 4 Computer Applications in Agriculture 3.0
CRP S 1 Principles of Crop Production 3.0
CRP S 2 Forage Crops 3.0
NRM 1 Range Management 3.0
SOILS 1 Introduction to Soil Science 3.0

Select 6.0 units from the following:
Course Number Title Units
AN S 2 Beef Production 3.0
AN S 3 Sheep Production 3.0
AN S 4 Dairy Production 3.0

Crop Science
Minimum units required in discipline: 30

Suggested Courses
Course Number Title Units
AGRIC 10 Introduction to California Agriculture 3.0
AGRIC 49 Leadership Training 2.0
AGRIC 248 or Cooperative Work Experience Education 4.0
AGRIC 249 Cooperative Work Experience Education 4.0
AG BS 2 Agricultural Economics 3.0
AG BS 4 Computer Application in Agriculture 3.0

(Continued next page)
### AGRICULTURE

- **CPR S 1** Introduction to Animal Science 3.0
- **CPR S 1** Principles of Crop Production 3.0
- **CPR S 2** Forage Crops 3.0
- **CPR S 4** Vegetable Production 3.0
- **SOILS 1** Introduction to Soil Science 3.0

### FORESTRY

Minimum units required in discipline: 34

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### ORNAMENTAL HORTICULTURE

Minimum units required in discipline: 33

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</table>
COURSE DESCRIPTIONS
The following abbreviations are commonly used in the course descriptions: lect lecture; lab laboratory; demo demonstration; Repeat repeatability (see policy on course repetition); CCS Course Classification System. Hours given in parentheses are total hours for the course. Hours lecture, lab, etc., are hours required per week usually. Prerequisites are expressed as minimum requirements. See page 47 for a complete explanation. (CSU) indicates transferable to California State Universities; (UC) indicates Transferable to University of California.

AGRICULTURAL BUSINESS MANAGEMENT
AG BS 2 Agricultural Economics (3 units)
Changes occurring in agriculture, careers in commercial agricultural businesses and public agricultural service agencies, development and growth of farm related industries, kinds of agricultural businesses, operational characteristics of commercial agricultural industries. Recommended: Reading Level 1. Hours: (54) 3 lect. CCS: Occupational Education. Transferable: CSU and private colleges.

AGRICULTURE
Credit limitations may apply. For specific information see a counselor.

AGRIC 10 Introduction to California Agriculture (3 units)
Survey of the agriculture industry in California. Topics include career, job requirements, agriculture terminology, employment opportunities and an orientation to the college curriculum. Satisfies 0.5 unit educational planning requirement for graduation from Bakersfield College. Recommended: Reading Level 1. Hours: (54) 3 lect. Field trips required. CCS: Occupational Education. Transferable: CSU and private colleges.

AGRIC 49 Agriculture Leadership Training (2 units)
Supervised field work related to lecture instruction including: agricultural competitions; judging contests; livestock shows; recruiting programs; and youth activity planning, preparation and execution. Recommended: Reading Level 1 or evaluation by counselor/advisor. Hours: (72) 1 lect, 3 lab. Field trips required. Repeat: 1. CCS: Occupational Education. Transferable: CSU and private colleges.

AGRIC 248 Cooperative Work Experience Education (1–8 units, limit 16 units) See W EXP 248 description.

AGRIC 249 Cooperative Work Experience Education (1–4 units, limit 16 units.) See W EXP 249 description.

ANIMAL SCIENCE
AN S 1 Introduction to Animal Science (3 units)
Scientific and practical aspects of meat animals, horse and dairy cattle, care and management. Emphasizes the nutrition, breeding selection, anatomy and physiology, slaughtering, processing and marketing will be stressed. Recommended: Reading Level 1. Hours: (54) 3 lect. Field trips required. CCS: Occupational Education. Transferable: UC, CSU and private colleges.

AN S 2 Beef Production (3 units)
Commercial and purebred beef cattle production in the United States. History and development of the beef cattle industry. Beef breeding, genetics, production costs, marketing and herd management. Recommended: Reading Level 1. Hours: (90) 2 lect, 3 lab. Field trips required. CCS: Occupational Education. Transferable: UC, CSU and private colleges.
AN S 3 Sheep Production (3 units)
Sheep production in the United States, California and Kern County. Emphasizes breeds, breeding, lambing, selection, feeding, shearing, and marketing of lamb and wool including commercial production of market lambs in Kern County. Recommended: Reading Level 1. Hours: (90) 2 lect, 3 lab. Field trips required. CCS: Occupational Education. Transferable: CSU and private colleges.

AN S 4 Dairy Production (3 units)
Emphasizes the scientific and practical aspects of dairy animals, care and management. Nutrition, breeding selection, anatomy and physiology, production and marketing will be stressed. Recommended: Reading Level 1. Hours: (90) 2 lect, 3 lab. Field trips required. CCS: Occupational Education. Transferable: CSU and private colleges.

AN S 6 Applied Animal Nutrition (4 units)
Fundamentals of feeding livestock. Includes constituents of feeds, feed nutrients, digestive system of farm animals and their utilization of various feeds and balancing daily rations for farm animals. Hours: (108) 3 lect, 3 lab. Field trips required. CCS: Occupational Education. Transferable: CSU and private colleges.

AN S 7 Livestock Diseases (3 units)
Livestock hygiene and sanitation. Emphasizes the cause, symptoms and prevention of common livestock diseases, external and internal parasites. Safe use of disease preventative and treatments is stressed. Recommended: Reading Level 1. Hours: (54) 3 lect. Field trips required. CCS: Occupational Education. Transferable: CSU and private colleges.

AN S 71 Diseases of Beef and Dairy Cattle (1 unit)
Common disease problems in beef and dairy cattle with emphasis on Kern County. Includes cause, symptoms, prevention and recommended treatment. Recommended: Reading Level 1. Hours: (18) 2 lect for 9 weeks. Field trips required. Repeat: 1. CCS: Occupational Education. Not Transferable: Associate Degree only.

AN S 72 Equine Health (1 unit)
Prevention, symptoms, control and treatment of diseases of horses. Meets the needs of the horse owner or stable manager and taught by a graduate veterinarian who is currently practicing veterinary medicine in Kern County. Hours: (18) 2 lect for 9 weeks and selected field trips. Field trips required. CCS: Occupational Education. Not Transferable: Associate Degree only.

AN S 74 Equine Nutrition (1 unit)
A series of lectures covering the various phases of horse nutrition. Designed for the horse owner or trainer. Hours: (18) 2 lect for 9 weeks and selected field trips. Field trips required. CCS: Occupational Education. Not Transferable: Associate Degree only.

CROP SCIENCE
Credit limitations may apply. For specific information see a counselor.

CRP S 1 Principles of Crop Production (3 units)
Fundamental practices for field and vegetable crops: basic botany, classification of plants, soils, fertilizers, irrigation, pest control, and crop rotation as well as specific practices for a crop such as cereal crops. Recommended: Reading Level 1. Hours: (54) 3 lect. CCS: Occupational Education. Transferable: UC, CSU and private colleges.

CRP S 2 Forage Crops (3 units)

CRP S 4 Vegetable Production (3 units)
Principles and practices of vegetable crop production. Methods used in seeding, propagation and culture of vegetables and the application of the principles underlying vegetable production techniques. Recom-
AGRICULTURE

mended: Reading Level 1. Hours: (90) 2 lect, 3 lab. Field trips required. CCS: Occupational Education. Transferable: CSU and private colleges. Elective credit only.

FORESTRY
Credit limitations may apply. For specific information see a counselor.

FORES 1 Introduction to Forestry (3 units)
The ecological, economic and sociological basis of forest management interrelated with the management of other resources. Topics include a history of forestry in America, the economics of forestry, forestry and national planning and forest uses. Recommended: Reading Level 1. Hours: (54) 3 lect. Field trips required. CCS: Occupational Education. Transferable: UC, CSU and private colleges.

FORES 2 Natural Resources (3 units)
Survey of our natural resources and the conservation of those uncaptured natural stores which are useful to humankind. Resources covered are water, soil, air, forests, grasslands, wildlife, oceans, minerals and energy. Ecology, waste management and human resources are also covered. Recommended: Reading Level 1. Hours: (54) 3 lect. Field trips required. CCS: Occupational Education. Transferable: UC, CSU and private colleges.

FORES 3 Wildlife Management (3 units)

FORES 4 Wildlife Law Enforcement (3 units)

FORES 5 Identification of California Wildlife (3 units)

FORES 6 Forestry Skills (3 units)
Survey of the forestry, wildlife and natural resources management industries. Careers, job requirements, terminology, employment opportunities and the identification and/or use of selected tools and equipment. Recommended: Reading Level 1. Hours: (90) 2 lect, 3 lab. Field trips required. CCS: Occupational Education. Transferable: UC, CSU and private colleges.

FORES 7 Wildland Fire Management (3 units)
Covers the physical theories of wildland fire, the methodology of wildland fire suppression, pre-suppression, and post-fire suppression and equipment. The practice of fire ecology and the use of prescribed control burns to maintain and improve our nation's forests and rangelands. Recommended: Reading Level 1. Hours: (54) 3 lect. Field trip required. CCS: Occupational Education. Transferable: UC, CSU and private colleges.

HORTICULTURE

HORT 51 Master Gardener (3 units)
Advanced techniques of horticulture and plant propagation, including vegetables, turf and ornamentals, grapes and subtropical fruits, deciduous fruits, nuts and soils. Topics
will include soil preparation, planting, fertilization, pruning practices, insect control, weed control, irrigation and harvest. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect. **Repeat:** 3. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**NATURAL RESOURCES MANAGEMENT**

**NRM 1 Range Management (3 units)**
Basic range management and improvement practices. Proper utilization of rangeland resources. Overview of multiple use principles. Maintenance and improvement of range plant communities. **Recommended:** Reading Level 1. **Hours:** (90) 2 lect, 3 lab. Field trips required. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**NRM 2 Parks and Outdoor Recreation (3 units)**
Introduction to national, state, county, city, and private park systems. History, philosophy, policy and principles of the formation, administration and functioning of recreational units at the park, district and regional levels. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect. Field trips required. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.

**ORNAMENTAL HORTICULTURE**
Credit limitations may apply. For specific information, see a counselor.

**ORN H 1 Introduction to Ornamental Horticulture (3 units)**
Survey of the ornamental horticulture industry, including floriculture, nursery production, retail nurseries, landscaping. Career possibilities explored. Overview of basic botany concepts. **Hours:** (90) 2 lect, 3 lab. Field trips required. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**ORN H 2 Fundamentals of Nursery Management and Plant Production (3 units)**
Commercial nursery operation. Propagation media, nursery designs, propagation structures, seedage, cuttage, plant structure, rooting aids, transplanting, stepping up, and potting. Principles of sexual and asexual propagation. **Recommended:** Reading Level 2 or evaluation by instructor. **Hours:** (90) 2 lect, 3 lab. Field trips required. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**ORN H 3 Landscape Installation and Maintenance (3 units)**
Covers the planning, installation and maintenance of landscapes in Kern County and California. **Recommended:** Reading Level 1 or evaluation by instructor. **Hours:** (90) 2 lect, 3 lab. Field trips required. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**ORN H 4 Plant Propagation (3 units)**
Principles of sexual propagation, seedage, and asexual propagation, budding, grafting, cuttings layering, division and separation. Principles of tissue culture. **Recommended:** Reading Level 1 or evaluation by instructor. **Hours:** (90) 2 lect, 3 lab. Field trips required. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**ORN H 5 Nursery Management (3 units)**
Commercial nursery operations. Propagation, propagation media, nursery design, propagation structures, plant structure, rooting aids, transplanting, stepping up and potting greenhouse and nursery plants. **Recommended:** Reading Level 1 or evaluation by instructor. **Hours:** (90) 2 lect, 3 lab. Field trips required. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**ORN H 6 Ornamental Plant Identification — Ground Covers, Vines, and Dwarf Shrubs (3 units)**
Identification, habits of growth, culture and landscape use of dwarf shrubs, vines, ground covers, annuals, and biennials, adapted to the Central Valley of California and the surrounding mountains. **Recommended:** Reading Level 1 or evaluation by instructor. **Hours:** (90) 2 lect, 3 lab. Field trips required. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.
ORN H 7 Ornamental Plant Identification — Large Shrubs, Small Trees, Large Trees and Palms (3 units)
Identification, habits of growth, culture and landscape use of large shrubs, small trees, large trees and palms adapted to the Central Valley of California and the surrounding mountains. **Recommended:** Reading Level 2 or evaluation by instructor. **Hours:** (90) 2 lect, 3 lab. Field trips required. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ORN H 35 Ornamental Horticulture (1 unit)
Identification, habits of growth, culture and landscape use of plants commonly found on school campuses and adapted to the Central Valley of California. **Recommended:** Reading Level 1. **Hours:** (18) 9 lect for 2 weeks. Field trips required. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ORN H 78 Landscape Maintenance/Laws and Regulations of Pest Control (1 unit)
Designed for students interested in securing the landscape pest control certificate required of all professional landscape gardeners who apply chemicals. **Recommended:** Reading Level 2 or evaluation by instructor. **Hours:** (18) 2 lect for 9 weeks. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

ORN H 79 Landscape Pest Management (1 unit)
For students interested in the Qualified Applicator Certificate. Includes information about the certification examination, turf pest, insects and mite control, weed control, and mushroom control in lawns. **Recommended:** Reading Level 2. **Hours:** (18) 2 lect for 9 weeks. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

ORN H 80 Pesticide Application and Safety (1 unit)
Designed for professional applicators, advisors or students entering the field of pesticide management. Equipment and safe procedures involving supervision, minimum exposure, fitting/use of a respirator and label interpretation. Application techniques, including right-of-way, non-crop weed control and soil incorporated insecticides. **Recommended:** Reading Level 2. **Hours:** (18) 2 lect for 9 weeks. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

SOILS

SOILS 1 Introduction to Soil Science (3 units)
Problems pertaining to the soil which are important in the profitable production of crops, physical properties of soils, fertilizers, crop rotation, erosion and alkali control, cultivation problems and irrigation. **Recommended:** Reading Level 1. **Hours:** (90) 2 lect, 3 lab. Field trips required. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.
Allied Health

Emergency Medical Technician
Medical Science
Primary Care Associate
Radiologic Technology
Registered Nurse
Vocational Nurse
ADMISSIONS TO ALLIED HEALTH PROGRAMS

I. Statement of philosophy concerning admission into Allied Health Programs:
All persons who are able to perform satisfactorily the responsibilities and tasks required in an education and training program and in subsequent employment in the field should have an opportunity to succeed. It is recognized that the need to protect the safety and welfare of the student and the community is a primary consideration in the health occupations.

II. Admission Procedures
A. Determination of eligibility for admission: The student must meet educational and health requirements established for the program.

1. Educational Requirements
   a. A high school diploma or equivalent is required for all allied health programs.
   b. Meet specific program prerequisites.

2. Health Requirements
   The student must be free from communicable diseases, infection, psychological disorders, and other conditions that would prevent the successful performance of the responsibilities and tasks required in the education and training program of the college. Any condition described above which is developed by the student after admission to the program may be considered sufficient cause for suspension from the program. If possible, such a student should be counseled to enter a more appropriate program.

   a. Physical Examinations — This exam is to be completed AFTER the student receives notification of selection into the program. The applicant must have a level of emotional and physical health necessary to meet program requirements.
   b. Immunizations — As needed for acceptance in a clinical and training facility, and to protect the health and welfare of the student and community.
   c. Drug and Alcohol Screening — As a condition of admission to any Allied Health Program with a clinical component, all students are required to submit to, and pass, a designated drug and alcohol screen.

3. Eligibility for Admission
   Applicants who have completed their applications, have their high school and college transcripts on file, and have met the educational and health requirements will be designated as eligible for admission. Information regarding criteria for selection may be obtained in the Allied Health Office.

EMERGENCY MEDICAL TECHNOLOGY PROGRAMS
EMERGENCY MEDICAL TECHNICIAN I
This is a 120-hour certificate program (12 week course) which will prepare the student to perform basic emergency care as part of the mobile emergency care team. EMT 1 certification is required by the state in order to function in emergency patient care.

A class of 50 students begins each semester. At the end of the course, those students who successfully pass the final examination (75% or higher) will be certified by the Kern County Emergency Medical Services for a two-year period. Re-certification every two years is required to maintain EMT 1 status (see EMT 1r course description).

PRIMARY CARE ASSOCIATE (PHYSICIAN'S ASSISTANT)
Stanford University Medical Center administers a program to train individuals who function in association with physicians in the maintenance and delivery of primary health care to medically underserved communities.

Upon completion of the prerequisite pre-clinical program at Bakersfield College or
other accredited institutions, students admitted to the program have 15 months of clinical experience coordinated through Stanford University Medical Medical Center. Students participate in didactic course work full-time for the first quarter (3 months) at Stanford Medical Center in Palo Alto, California. Then they complete an equivalent of five days didactic instruction each month (12 months) thereafter. All clinical experience occurs in an office practice preceptorship.

Note: Contact Counseling Department for further information.

Prerequisites:
Minimum requirements for application and admission include:

1. United States citizen or permanent visa.
2. High School Diploma or equivalent.
3. A minimum of 12 months direct patient care experience.
4. Satisfactory completion of the following academic prerequisites or their equivalents.

The student must have a preceptor site established in order to complete the clinical experiences necessary for the program.

Upon successful completion of the P.C.A. program, the graduate will sit for a certifying examination administered by the National Commission on Certification of Physician’s Assistants. Passing this examination allows the Physician’s Assistant to perform direct patient services under the supervision of primary care physicians certified by the California Board of Medical Quality Assurance.

Pre-Clinical Program Requirements
A minimum grade of “C” must be attained in each of these courses. Only work from a regionally accredited college can be accepted.

Algebra — Elementary. One year of high school math or MATH A /200a at Bakersfield College.

Anatomy 1 and Physiology 1 at Bakersfield College or equivalent. Must be at least 10-12 quarter units or 7-8 semester units.

Chemistry — Introductory. One year of high school chemistry, or CHEM 11 at Bakersfield College or equivalent.

Cultural Anthropology or Sociology: ANTH 2, SOC 1 at Bakersfield College, or other acceptable course.

English Composition — Freshman level: ENGL 1, ENGL 1a at Bakersfield College, or other acceptable course.

General Psychology — PSYCH 1a at Bakersfield College, or other acceptable course.

Microbiology with laboratory: BACT 2 at Bakersfield College, or other acceptable course.

*American History and Institutions. HIST 17a and HIST 17b at Bakersfield College.

*Computer Literacy — Two semester units. Must include experience at a terminal (CS 2 or CS 12) at Bakersfield College, or other acceptable course).

*Ethnic Studies — A course that reflects the experience of an American ethnic group.

*Humanities — One course from List A and one course from List B. (A) Literature, Philosophy (not Logic), or Western Civilization. (B) Art Appreciation, Music Appreciation, or Theatre Arts Appreciation.

*Physical Education — Four quarter courses or three semester courses.

*Speech — Public Speaking or interpersonal communication: SPCH 1 or SPCH 2 at Bakersfield College, or other acceptable course.

*These course areas are required if candidate does not possess an A.A., A.S. or higher academic degree.

RADIOLOGIC TECHNOLOGY
Radiologic Technology is a health care profession whose practitioners work in hospitals, imaging centers, and private physicians’ offices. The radiologic technolo-
gist (radiographer) is a member of the allied health team who works directly with the patient and the physician performing a wide variety of diagnostic x-ray procedures. The role of the graduate radiographer may be that of staff radiographer, special imaging radiographer, supervisor, administrator or educator, depending upon the level of education and experience obtained.

The Bakersfield College Associate in Science Degree Radiologic Technology Program provides concurrent didactic and clinical education. The program is 24 months in length (excluding prerequisite coursework) and begins each year in June.

The program provides the theory, skill and experience necessary to apply for admission to write the certification examination by the American Registry of Radiologic Technologists (ARRT) and the California Certification examination for radiologic technologists, administered by the State of California, Department of Health Services. Students must earn a minimum of “C” in all radiography and related general education courses and have met all clinical education objectives to be recommended for the above examinations.

Radiologic Technology Program
Prerequisite Requirements
Beginning with the 1995 program admission, all prerequisite coursework must be completed prior to program application. Courses in-progress during the application filing period (see dates below) will not be considered for entrance into the program.

The following courses must be completed with a “C” grade or higher (except where otherwise noted):

1. ANAT 1 and PHYSL 1 OR HL SC 1 at BC or equivalent course at another accredited college.
2. MATH D/200D at BC or equivalent course at another accredited college. Completion of high school Algebra II or equivalent with a minimum grade of “B” can be accepted in lieu of MATH D/200D.
3. MED S 60 at BC or equivalent course at another accredited college.
4. Eligibility for ENGL 1a as demonstrated by qualifying scores on the BC assessment tests; or completion of ENGL 1 at BC; or an equivalent course from another accredited college with a minimum grade of “C.”
5. Graduation from high school or an equivalent education.

ADMISSION TO THE RADIOLOGIC TECHNOLOGY PROGRAM

Application Filing Period
Applications must be received by the Radiologic Technology Program Office between January 15th and March 15th for the program scheduled to start in June. Early applications will be returned and late applications will not be accepted.

Application Procedures
1. Complete required prerequisite courses (see above).
2. Applications for the Radiologic Technology Program may be obtained in the Allied Health Division, Allied Health building, Room 178, OR in the Counseling Center located in the Student Services building on the main campus.
3. Official transcripts for all high school and college coursework must also be submitted and mailed directly to Radiologic Technology Program, Bakersfield College, 1801 Panorama Drive, Bakersfield, CA 93305. All transcripts must be received during the application dates listed above.
4. Students not admitted must reapply for each program cycle to keep their file active. If the student does not reapply, the file will be destroyed.

NOTE: Equivalent courses taken at other accredited colleges must be verified by official transcripts. Requests for consideration of course equivalency must be made by the student to the Bakersfield College Admissions and Records Office, (805) 395-4301. It is the student’s
responsibility to see that the equivalency is provided to the program within the application filing period.

General Education Requirements
General education courses are required to graduate from the Bakersfield College Associate Degree Radiologic Technology Program, and it is suggested that most be completed prior to admission into the program:

1. English — English 1 minimum required; English 1a recommended
2. Speech — Speech 1 or 2
3. Social Science — History 17a or other Social Science* course
4. Behavioral Science — Psychology 1a recommended
5. Humanities — Philosophy 12 recommended or other Humanities* course
6. Computer Science (3 units) — CS 2 (formerly CIS 1) or CS 5 (formerly CIS 25) recommended
7. Educational Planning Requirement: See Matriculation Requirements (an educational plan must be on file before a student has completed 15 units of coursework to receive priority registration). Also met with RAD T 1.
8. All other graduation requirements of the college must be met to receive the A.S. degree in Radiologic Technology. An individual who has previously received an associate degree or higher may apply for the A.S. degree in Radiologic Technology providing all requirements have been met. However, if an individual has previously received an associate degree, or higher, it is not necessary for an individual to work towards the A.S. degree.

*See BC General Education Requirements.

Physical Examination/Drug and Alcohol Screening/Program Supply Information
1. A physical examination completed by a physician of the student’s choice will be required after acceptance into the program to demonstrate that a student meets the technical standards* necessary to meet the objectives of the program. Appropriate immunizations and/or vaccinations are also required. These are done at the student’s expense.

2. As a condition of admission to any Allied Health Program with a clinical component, all students are required to submit to and pass a designated drug and alcohol screen. This will be done at the student’s expense.
3. Students will be required to purchase uniforms, textbooks and selected equipment and provide transportation to off-campus sites for clinical education and pay current college fees. The student should be aware that books, uniforms, fees and required equipment for the first year of the program cost approximately $450-$550. The following semesters require books and registration fees.

* A copy of the “Essential Technical Standards” required for Radiologic Technologists may be obtained in the Allied Health Division Office.

Note: Record of any conviction, misdemeanor or felony is subject to review by the American Registry of Radiologic Technologists (ARRT) before certification may be granted. Anyone who wishes clarification may contact the ARRT, 1225 Northland Drive, Mendota Heights, MN 55120, (612) 687-0048.

Accreditation
The Radiologic Technology Program is nationally accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 N. Wacker Drive, Suite 900, Chicago, Illinois 60606-2901, (312) 704-5300. The program is also accredited by the State of California, Department of Health Services, Radiologic Health Branch, P.O. Box 942732, Sacramento, CA 94234-7320.

ASSOCIATE DEGREE RADIOLOGIC TECHNOLOGY PROGRAM
The following courses are taken after students have been finally accepted in the Radiologic Technology Program.

Summer 1 (6 weeks)

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<td>RAD T 1</td>
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<td>RAD T 4a</td>
<td>Introduction to Clinical Education</td>
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<td>MED S 50</td>
<td>Patient Care</td>
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First Semester (Fall)

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<td>Radiographic Anatomy and Positioning 1</td>
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<td>RAD T 3a</td>
<td>Radiographic Principles 1</td>
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<td>RAD T 4b</td>
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<td>General Education (if needed)</td>
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</table>

REGISTERED NURSING

Nursing education prepares the graduate to provide services to those who need health care. As needs are varied so are educational programs, which may proceed from the simpler to the more complex in accordance with the career ladder concept. The progression reads: nursing assistant, licensed vocational nurse, registered nurse, and other nurses with Bachelor of Science, Master of Science and Doctorate in Nursing. This role of a new graduate is usually that of a staff nurse. With additional education, a nurse may advance to a position of supervisor, administrator, clinical specialist, educator, or researcher.

Curriculum Framework

The curriculum is based upon the following concepts which provide a framework for theory and practice at each level:

1. Utilization of the nursing process to assess, plan, implement, and evaluate nursing care.
2. Man as a bio-psycho-social-spiritual being.
3. The personal and professional development of the student to prepare for the role of a Registered Nurse.

ADMISSION TO THE ASSOCIATE DEGREE PROGRAM

General Information

1. This is a four-semester Associate Degree Nursing Program (ADN). Students must complete all the Bakersfield College General Education Requirements for graduation in addition to the prerequisite courses.
2. Upon successful completion of the ADN Program, graduates are eligible to take the California State Board Examination for licensure as a Registered Nurse.

Application Filing Periods

1. February 1st through March 15th for fall semester.
2. September 10th through October 20th for spring semester.
3. All applications must be received in the Allied Health Division during the stated filing period. Applications received prior to these dates will be returned. Late applications will not be accepted.

Application Procedures

1. Complete required prerequisite courses (see below).
2. Obtain application from the BC Allied Health Division (or the Counseling Center located in the Student Services building on the main campus).
3. Arrange for official copies of college transcripts to be mailed directly to the Allied Health Division.
Health Division, Bakersfield College, 1801 Panorama Dr., Bakersfield, CA 93305
Students attending BC must furnish an unofficial BC transcript. Students not admitted must reapply each semester.

Prerequisite Course Requirements
1. All prerequisite courses must be completed before application will be considered. Courses in progress will not be considered.
2. The following courses must be completed with a minimum grade of "C":
   a. MATH A/200a at BC or an equivalent course at another accredited college, or two semesters of high school algebra.
   b. CHEM 1a, 2a, or 11 at BC or an equivalent course at another accredited college. (Students who plan to complete the BC ADN program and later pursue their bachelor’s in nursing at Cal State University, Bakersfield are advised to take CHEM 11.)
   c. ANAT 1 at BC or equivalent course at another accredited college.
   d. PHYSL 1 at BC or equivalent course at another accredited college.
3. Other prerequisite requirements:
   a. Eligibility for ENGL 1a as demonstrated by qualifying scores on the BC assessment test; or completion of ENGL 1 at BC; or an equivalent course from another accredited college with a minimum grade of "C.”
   b. Graduation from high school or an equivalent education.

General Education Courses
1. The following courses are also required to graduate from the Bakersfield College ADN Program and it is suggested that most of them be completed prior to admission into the program:
   a. ENGL 1a
   b. SPCH 1 or 2
   c. HIST 17a or other social science course
   d. PSYCH 1a
   e. SOC 1 or ANTH 2
   f. PHIL 12 or other humanities course

Note: Equivalent courses taken at other accredited colleges must be verified by official transcripts. Requests for consideration of courses for equivalency must be made to the Bakersfield College Admissions and Records Office.

ASSOCIATE DEGREE NURSE PROGRAM
The following courses are taken after students have been formally accepted into the ADN Program. It is strongly recommended that BACT 2 be completed prior to entry into the program.

First Semester
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 1</td>
<td>Nursing Fundamentals</td>
<td>3.0</td>
</tr>
<tr>
<td>NURS 1L</td>
<td>Nursing Fundamentals Laboratory</td>
<td>3.0</td>
</tr>
<tr>
<td>NURS 1g</td>
<td>Gerontological Nursing</td>
<td>1.0</td>
</tr>
<tr>
<td>NURS 1gL</td>
<td>Gerontological Nursing Laboratory</td>
<td>1.5</td>
</tr>
<tr>
<td>NURS 31</td>
<td>Basic Pharmacology</td>
<td>2.0</td>
</tr>
<tr>
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Second Semester
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
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<tbody>
<tr>
<td>NURS 3a</td>
<td>Medical/Surgical Nursing</td>
<td>2.0</td>
</tr>
<tr>
<td>NURS 3aL</td>
<td>Medical/Surgical Nursing Laboratory</td>
<td>2.0</td>
</tr>
<tr>
<td>NURS 6</td>
<td>Pediatric Nursing</td>
<td>1.5</td>
</tr>
<tr>
<td>NURS 6L</td>
<td>Pediatric Nursing Laboratory</td>
<td>1.5</td>
</tr>
<tr>
<td>NURS 7</td>
<td>Maternal/Newborn Nursing</td>
<td>1.5</td>
</tr>
<tr>
<td>NURS 7L</td>
<td>Maternal/Newborn Nursing Lab</td>
<td>1.5</td>
</tr>
<tr>
<td>BACT 2</td>
<td>General Bacteriology and Microbiology</td>
<td>4.0</td>
</tr>
<tr>
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<td>14.0</td>
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Third Semester
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 3b</td>
<td>Medical/Surgical Nursing</td>
<td>2.0</td>
</tr>
<tr>
<td>NURS 3bL</td>
<td>Medical/Surgical Nursing Laboratory</td>
<td>2.5</td>
</tr>
<tr>
<td>NURS 8</td>
<td>Psychiatric/Mental Health Nursing</td>
<td>2.0</td>
</tr>
<tr>
<td>NURS 8L</td>
<td>Psychiatric/Mental Health Nursing Laboratory</td>
<td>1.5</td>
</tr>
<tr>
<td>NURS 32</td>
<td>Advanced Pharmacology</td>
<td>2.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>10.0</td>
</tr>
</tbody>
</table>

Fourth Semester
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 9</td>
<td>Advanced Medical/Surgical Nursing</td>
<td>3.0</td>
</tr>
<tr>
<td>NURS 9L</td>
<td>Advanced Medical/Surgical Nursing Laboratory</td>
<td>5.0</td>
</tr>
<tr>
<td>NURS 10</td>
<td>Nursing Management/Leadership</td>
<td>1.5</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>9.5</td>
</tr>
</tbody>
</table>

NOTE: The clinical components of all nursing courses are graded on a credit/no credit basis only.

(Continued next page)
ADN students are exempt from the maximum of three Credit/No Credit units which may be taken in a semester and from the maximum of 12 Credit/No Credit units which may be applied toward the AA and AS degrees at Bakersfield College.

Physical Examination/Drug and Alcohol Screening/Program Supplies Information

1. A physical examination completed by a physician of the student's choice will be required after acceptance into the program to demonstrate the level of physical and emotional health necessary to meet the objectives of the program. Appropriate immunizations are also required. These will be done at the student's expense.

2. As a condition of admission to any Allied Health Program with a clinical component, all students are required to submit to and pass a designated drug and alcohol screen. This will be done at the student's expense.

3. Students will be required to purchase uniforms, textbooks and selected equipment and provide transportation to off-campus sites for clinical experience and pay current college fees.

IMPORTANT: You should be aware that books, uniforms, fees and required equipment for the first semester of the program cost approximately $600 to $800. The following semesters require only books and registration fees.

NOTE: Record of any misdemeanor and/or felony is subject to review by the Board of Registered Nursing before an R.N. license may be granted. This is in accordance with legal requirements. Anyone who wishes clarification may contact the Board of Registered Nursing, 400 R Street, Suite 4030, Sacramento, CA 95814, (916) 322-3350.

LVN TO ASSOCIATE DEGREE NURSE PROGRAM

General Information

Vocational nurses who wish to complete requirements for eligibility for the registered nurse licensure examination as an Associate Degree Nurse will be considered for advanced placement. Admission to the Educational Mobility Program in Nursing is dependent upon completion of all prerequisite requirements, and available space. Applicants who successfully complete all requirements, but are not accepted because of class size, will be given priority ranking based on the Selection/Ranking Criteria used for admission to the first semester of the ADN Program.

Application Filing Periods

1. February 1st through March 15 for fall semester.
2. September 10th through October 20th for spring semester.
3. All applications must be received in the Allied Health Division during the stated filing period. Applications received prior to these dates will be returned. Late applications will not be accepted.

Application Procedures

1. Obtain application from the Bakersfield College Allied Health Division or the Counseling Center located in the Student Services building on the main campus.
2. Arrange for official copies of college transcripts to be mailed directly to the Allied Health Division, Bakersfield College. Students attending BC must furnish an unofficial copy of their BC transcript.
3. Submit photocopy of current Vocational Nurse license.

Prerequisite Course Requirements

1. All prerequisite courses must be completed before application will be considered. Courses in progress will not be accepted.
2. The following courses must be completed with a minimum grade of "C":
   a. MATH A/200a at BC or an equivalent course at another accredited college, or two semesters of high school algebra.
   b. CHEM 1a, 2a, or 11 at BC or an equivalent course at another college.
   (Students who plan to complete the BC ADN Program and later pursue their bachelor's in nursing at Cal State University, Bakersfield are advised to take CHEM 11.)
   c. ANAT 1 at BC or equivalent course at another accredited college.
   d. PHYSL 1 at BC or equivalent course at another accredited college.

(Continued next page)
e. BACT 2 at BC or equivalent course at another accredited college.

3. Other prerequisite requirements:
   a. Eligibility for ENGL 1a as demonstrated by qualifying scores on the BC assessment test; or completion of ENGL 1 at BC; or an equivalent course from another accredited college with a minimum grade of "C."
   b. Possession of current Vocational Nurse license.
   c. Graduation from high school or an equivalent education.

General Education Requirements
1. The following courses are also required to graduate from the BC ADN Program, and it is strongly suggested that all or most of them be completed prior to advanced placement into the ADN Program.
   a. ENGL 1a
   b. SPCH 1 or 2
   c. HIST 17a or other social science course
   d. PSYCH 1a
   e. SOC 1 or ANTH 2
   f. PHIL 12 or other humanities course

NOTE: Equivalent courses taken at other colleges must be verified by official transcripts. Requests for consideration of courses for equivalency must be made to the Bakersfield College Admissions and Records Office.

Required Nursing Courses
The following courses are taken after students have been formally accepted for advanced placement into the ADN Program.

Third Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 3b</td>
<td>Medical/Surgical Nursing</td>
<td>2.0</td>
</tr>
<tr>
<td>NURS 3bL</td>
<td>Medical/Surgical Nursing Laboratory</td>
<td>2.5</td>
</tr>
<tr>
<td>NURS 8</td>
<td>Psychiatric/Mental Health Nursing</td>
<td>2.0</td>
</tr>
<tr>
<td>NURS 8L</td>
<td>Psychiatric/Mental Health Nursing Laboratory</td>
<td>1.5</td>
</tr>
<tr>
<td>NURS 32</td>
<td>Advanced Pharmacology</td>
<td>2.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>10.0</td>
</tr>
</tbody>
</table>

Fourth Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 9</td>
<td>Advanced Medical/Surgical Nursing</td>
<td>3.0</td>
</tr>
<tr>
<td>NURS 9L</td>
<td>Advanced Medical/Surgical Nursing Laboratory</td>
<td>5.0</td>
</tr>
<tr>
<td>NURS 10</td>
<td>Nursing Management/Leadership</td>
<td>1.5</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>9.5</td>
</tr>
</tbody>
</table>

Future Transfer Students
Students who plan to obtain their bachelor’s degree in nursing at California State University, Bakersfield after completing the Bakersfield College ADN Program will need to take NUTR 10 and PSYCH 40 at BC prior to transfer. In addition, there may be other General Education courses required. Contact the Counseling Center for further information at 395-4421.

Physical Examination/Drug and Alcohol Screening/Program Supplies
Physical examination completed by a physician of the student’s choice will be required after acceptance into the program to demonstrate the level of physical and emotional health necessary to meet the objectives of the program. Appropriate immunizations and drug and alcohol screening are also required. These will be done at the student’s expense.

As a condition of admission to the LVN to Associate Degree Nursing Program, all students are required to submit to and pass a designated drug and alcohol screen. This will be done at the student’s expense following admission to the program.

Students will be required to purchase uniforms, textbooks and selected equipment, provide transportation to off-campus sites for clinical experience, and pay current college fees. These costs total approximately $800.

NOTE: Record of any misdemeanor and/or felony is subject to review by the Board of Registered Nursing before an R.N. license may be granted. This is in accordance with legal requirements. Anyone who wishes clarification may contact the Board of Registered Nursing, 400 R Street, Suite 4030, Sacramento, CA 95814, (916) 322-3350.

LVN TO NON-DEGREE NURSE
(30 UNIT OPTION)
Students seeking information regarding the 30-unit option preparation for the registered nurse licensing examination may receive further information from the Counseling Center or the Director of the Associate Degree Nursing Program.

(Continued next page)
Prerequisite courses — must be completed prior to application for admission:
PHYSIOLOGY 1—Introductory Physiology (5 units). Meets Board of Registered Nursing requirements in Physiology.

BACTERIOLOGY 2—General Bacteriology and Microbiology (4 units). Meets Board of Registered Nursing requirements for Microbiology.

Nursing courses required after admission:
NURSING 3B—Medical/Surgical Nursing (2 units)
NURSING 3bL—Medical/Surgical Nursing Lab (2.5 units).

NURSING 9—Advanced Medical/Surgical Nursing (3 units).
NURSING 9L—Advanced Medical/Surgical Nursing Lab (5.0 units). The above courses meet the Board of Registered Nursing requirements for advanced medical/surgical nursing. Advanced geriatric nursing is integrated in Nursing 3b, 3bL, 9 and 9L.

NURSING 8—Psychiatric/Mental Health Nursing (2.0 units).
NURSING 8L—Psychiatric/Mental Health Nursing Lab (1.5 units). Meets Board of Registered Nursing requirements for mental health nursing/psychiatric nursing.

NURSING 10—Nursing Management/Leadership (1.5 units). Provides an understanding of nursing management/leadership principles.

*NURSING 32—Advanced Pharmacology (2.0 units) designed to provide the student with an understanding of nursing concepts related to adult intravenous therapy.
*Optional course strongly recommended.
Total units required 26.5. Total units including optional course 28.5.

Equivalent courses successfully completed at other accredited colleges will be accepted regardless of the date the courses were taken. Equivalency will be determined by the Bakersfield College Admission Office on the basis of official transcripts, catalog description, course outline content comparison and hours distribution. A challenge examination may be required when equivalency cannot be determined.

Additional Requirement:
a. Proof of current Vocational Nurse Licensure.
b. Graduation from high school or an equivalent education. (Required in order to take RN Licensure Examination.)

Expenses:
Students will be required to purchase uniform, textbooks, selected equipment, provide transportation to off-campus sites for clinical experience, and pay current college fees.

Transfer Policy
1. Academic credit earned in regionally accredited institutions of higher education for comparable prelicensure courses will be accepted for transfer.
2. A student who has successfully completed nursing courses in an approved or accredited nursing program may be eligible to receive credit for equivalent courses within the Nursing Program curriculum.
3. Equivalency will be determined on the basis of catalog description, course outline content comparison, and hours distribution.
4. A challenge examination may be required when equivalency cannot be determined. One semester in residency will be required to attain degree status from the college.

Challenge by Examination Policy
1. Challenge examinations are available for all courses in the nursing education curriculum. Students seeking challenge by examination credit will be counseled individually by the Director and/or Assistant Director.
2. Students requesting credit based upon previous work experience as a nurse assistant may challenge clinical aspect of nursing education courses included in the first level of the curriculum.
3. Challenge examinations for credit based on previous education/experience must be requested by the student six weeks prior to
the start of the semester in which the course is scheduled to be taught.

Challenge Procedure for Clinical Proficiency
1. The student will be given the clinical objectives, will present himself/herself at a designated clinical area. He/she must demonstrate clinical proficiency in all areas stated in the clinical objectives as determined by the instructor.
2. Each challenge procedure will be on an individual and supervised basis.

VOCATIONAL NURSING
Vocational Nursing at Bakersfield College is a three-semester certificate program. Students may also choose to complete the general education requirements of the college and obtain an Associate in Liberal Arts degree. The college does not award an Associate in Arts in Vocational Nursing. Consult Bakersfield College catalog or the Counseling Center for specific requirements. Upon successful completion of the VN program, graduates are eligible to take the California State Board Examinations for licensure as a Vocational Nurse.

Curriculum Framework
The curriculum is based upon the following concepts which provide a framework for theory and practice at each level:
1. Utilization of the nursing process to assess, plan, implement, and evaluate nursing care.
2. Man as a bio-psycho-social-spiritual being.
3. The personal and professional development of the student to prepare for the role of a Vocational Nurse.

Application Filing Period
One VN class is accepted to begin every three semesters. Applications are accepted in the Allied Health Division beginning February 1st through March 15th for fall semester admission and beginning September 10th through October 20th for spring semester admission. Applications received prior to these dates will be returned. The next anticipated program start is spring 1997 with applications accepted in fall 1996.

Application Procedures
1. Complete prerequisite courses.
2. Submit a completed application form during the application period. Applications may be obtained from the BC Allied Health Division or the Counseling Center located in the Student Services building on the main campus.
3. Provide proof of graduation from high school or equivalent education (GED).
4. Arrange for official copies of high school and college transcripts to be mailed directly to the Allied Health Division, Bakersfield College, (1801 Panorama Drive, Bakersfield, CA 93305). Students attending BC must furnish an unofficial BC transcript.
5. Provide assessment scores if needed (see note below).
6. Students not admitted must reapply each application period.

Prerequisite Course Requirements
1. All prerequisite courses must be completed before the application will be considered. Courses in progress will not be considered.
2. The following courses must be completed with a minimum grade of "C":
   a. Health Science 1 (Survey of Anatomy and Physiology) at BC or equivalent courses at another accredited college.
   b. Psychology 1a (General Psychology) or an equivalent course at another accredited college.
3. Other prerequisite requirements:
   a. Eligibility for English 1a—(Level 1) on the current BC assessment test, or completion of English 1 at BC.
   b. Eligibility for MATH A/200a (Elementary Algebra) on the current BC assessment test. (Numerical score of 45-55 or score of 23-42 on Elementary Algebra Test) or completion of MATH 50/250 (Pre-Algebra). Assessment scores must be provided by the applicant prior to the application deadline.
   c. Graduation from high school or equivalent education (GED).

NOTE: Equivalent courses taken at other accredited colleges must be verified by official transcripts. Requests for consideration of courses for equivalency must be
made to the Bakersfield College Admissions and Records Office.

**Vocational Nursing Program**
The following courses are taken after students have been formally accepted into the VN Program.

### First Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 1</td>
<td>Nursing Fundamentals</td>
<td>3.0</td>
</tr>
<tr>
<td>NURS 1Lv</td>
<td>Clinical Practice—Vocational Nursing</td>
<td>6.0</td>
</tr>
<tr>
<td>NURS 1g</td>
<td>Gerontological Nursing</td>
<td>1.0</td>
</tr>
<tr>
<td>NURS 31</td>
<td>Basic Pharmacology</td>
<td>2.0</td>
</tr>
<tr>
<td>VNRS 56</td>
<td>Gastrointestinal Nursing &amp; Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>15.0</strong></td>
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### Second Semester

<table>
<thead>
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<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 2Lv</td>
<td>Clinical Practice—Vocational Nursing</td>
<td>6.0</td>
</tr>
<tr>
<td>NURS 35</td>
<td>Normal Growth &amp; Development</td>
<td>2.0</td>
</tr>
<tr>
<td>NURS 50</td>
<td>Advanced Pharmacology</td>
<td>1.0</td>
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<tr>
<td>VNRS 54</td>
<td>Cardiovascular Nursing</td>
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</tr>
<tr>
<td>VNRS 57</td>
<td>Respiratory Nursing</td>
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</tr>
<tr>
<td>VNRS 60</td>
<td>Musculoskeletal Nursing</td>
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</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>15.0</strong></td>
</tr>
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</table>

### Third Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 3Lv</td>
<td>Clinical Practice—Vocational Nursing</td>
<td>6.0</td>
</tr>
<tr>
<td>NURS 6</td>
<td>Pediatric Nursing</td>
<td>1.5</td>
</tr>
<tr>
<td>NURS 7</td>
<td>Maternal/Newborn Nursing</td>
<td>1.5</td>
</tr>
<tr>
<td>VNRS 58</td>
<td>Endocrine Nursing</td>
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</tr>
<tr>
<td>VNRS 61</td>
<td>Genitourinary Nursing</td>
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</tr>
<tr>
<td>VNRS 62</td>
<td>Neurosensory Nursing</td>
<td>2.0</td>
</tr>
<tr>
<td>VNRS 63</td>
<td>Integumentary Nursing</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>15.0</strong></td>
</tr>
</tbody>
</table>

**NOTE:** The clinical components of all nursing courses are graded on credit/no credit basis only.

**Physical Examination/Drug and Alcohol Screening/Program Supplies Information**

1. A physical examination completed by a physician of the student’s choice will be required after acceptance into the program to demonstrate the level of physical and emotional health necessary to meet the objectives of the program. Appropriate immunizations are also required. These will be done at the student’s expense.

2. As a condition of admission to any Allied Health Program with a clinical component, all students are required to submit to and pass a designated drug and alcohol screen. This will be done at the student’s expense.

3. Students will be required to purchase uniforms, textbooks and selected equipment and provide transportation to off-campus sites for clinical experience and pay current college fees.

**IMPORTANT:** You should be aware that books, uniforms, fees and required equipment for the first semester of the program cost approximately $600 to $800. The following semesters require only books and registration fees.

**NOTE:** Record of any misdemeanor and/or felony is subject to review by the Board of Vocational Nurse and Psychiatric Technician Examiners before a VN license may be granted. This is in accordance with legal requirements. Anyone who wishes clarification may contact the Board of Vocational Nurse & Psychiatric Technician Examiners, 1414 K Street, Suite 103, Sacramento, CA 95814, (916) 445-0793.
COURSE DESCRIPTIONS
The following abbreviations are commonly used in the course descriptions: lect lecture; lab laboratory; demo demonstration; Repeat repeatability (see policy on course repetition); CCS Course Classification System. Hours given in parentheses are total hours for the course. Hours lecture, lab, etc., are hours required per week usually. Prerequisites are expressed as minimum requirements. See page 47 for a complete explanation. (CSU) indicates transferable to California State Universities; (UC) indicates Transferable to University of California.

EMERGENCY MEDICAL TECHNICIAN
EMT 1 Emergency Medical Care (4 units) Provides the student with an understanding of the skills and assessment techniques needed to care for an ill or injured person in the prehospital setting. Closely follows the state regulations for EMT-1A training and leads to certification at the county level. Required for ambulance personnel, the California Highway Patrol (CHP) and many other first care providers. Prerequisite: Must be at least 18 years of age by the end of class. Hours: (120) 8 lect/lab per week for 13 weeks, plus 16 ER/ambulance experience. Repeat: As necessary for state EMS regulations. CCS: Occupational Education. Not Transferable: Associate Degree only.

EMT 1R Emergency Medical Technician I Recertification Preparation (1 unit) Provides a review of the material taught in the primary class for Emergency Medical Technicians, including updates on EMT issues and new material or skill techniques that have been approved since previous certification or recertification class. Closely follows California State regulations and leads to a recertification-completion certificate. Required to continue practice of pre-hospital emergency care. Prerequisite: Current EMT certification or certification that has expired in less than one year. Hours: (27) 8 lect/lab/testing per week for 3 weeks, plus 3 hours by arrangement. Repeat: As often as necessary for recertification. CCS: Occupational Education. Not Transferable: Associate Degree only.

MEDICAL SCIENCE
MED S 50 Patient Care (2 units) Introduces the radiography student with basic concepts of patient care. Instruction and demonstration in medical and surgical asepsis, body mechanics, vital signs, medical emergencies, contrast media and parenteral fluid administration, blood borne pathogens and isolation techniques. Prerequisite: Acceptance in the Radiologic Technology Program. Hours: (36) 6 lect/demo for 6 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only.

MED S 60 Medical Terminology (3 units) Basic medical terms related to the major body systems. Hours: (54) 3 lect/disc. CCS: Occupational Education. Not Transferable: Associate Degree only.

RADIOLOGIC TECHNOLOGY
RAD T 1 Introduction to Radiologic Technology (2 units) Orientation to the duties and responsibilities of the Radiologic Technologist. Emphasizes the medical use of radiation, interpersonal communication, ethics, radiation safety and protection, foundations and futures of medicine and radiology, hospital and departmental operations, professional development and quality assurance. Assistance in understanding college requirements. Satisfies the 0.5 unit counseling requirement for graduation from Bakersfield College. Prerequisite: Acceptance in the Radiologic Technology Program. Hours: (36) 6 lect for 6 weeks. CCS: Occupational Education. Transferable: CSU and private colleges. Note: Offered in summer session only.

RAD T 2a Radiographic Anatomy and Positioning I (3 units) Instruction and laboratory practice in the radiographic positioning of the chest, KUB, lower and upper extremities with correlated film anatomy. Prerequisites: Concurrent enrollment in Radiologic Technology Program, RAD T 1, MED S 50 with a
minimum grade of “C.” **Hours:** (90) 2 lect, 3 lab. CCS: Occupational Education. Transferable: CSU and private colleges.

**RAD T 2b Radiographic Anatomy and Positioning 2 (3 units)**
Instruction and laboratory practice in radiographic positioning of the vertebral column, bony thorax, gastrointestinal, biliary and urinary systems with correlated film anatomy. **Prerequisites:** Concurrent enrollment in Radiologic Technology Program; RAD T 2a with a minimum grade of “C.” **Hours:** (90) 2 lect, 3 lab. CCS: Occupational Education. Transferable: CSU and private colleges.

**RAD T 2c Radiographic Anatomy and Positioning 3 (2.5 units)**
Instruction and practical experience in skull, reproductive system and pediatric radiographic positioning, includes radiographic film correlation of anatomy. **Prerequisites:** Concurrent enrollment in the Radiologic Technology Program, RAD T 2b with a minimum grade of “C.” **Hours:** (81) 1.5 lect, 3 lab. CCS: Occupational Education. Transferable: CSU and private colleges.

**RAD T 3a Radiographic Principles 1 (3 units)**
Principles of x-ray image creation, basic radiation protection, technical factors affecting the x-ray beam, beam restriction, filtration, and radiation absorption. Covers accessory supplies and equipment, grids, intensifying screen and holders, radiographic film, processing and sensitometry. **Prerequisites:** RAD T 1 and MED S 50 with a minimum grade of “C.” concurrent enrollment in RAD T 2a and RAD T 4b. **Hours:** (90) 2 lect, 3 lab. CCS: Occupational Education. Transferable: CSU and private colleges.

**RAD T 3b Radiographic Principles 2 (3 units)**
Principles of radiographic image analysis including density, contrast, recorded detail and distortion. Covers manipulation of exposure factors, phototiming, conversion techniques and quality control analysis. Emphasis is on minimizing both patient exposure and radiographer dose. Instruction in special imaging systems including mobile radiography, fluoroscopy, tomography and mammography. **Prerequisites:** RAD T 3a with a minimum grade of “C,” concurrent enrollment in RAD T 2b and RAD T 6. **Hours:** (90) 2 lect, 3 lab. CCS: Occupational Education. Transferable: CSU and private colleges.

**RAD T 4a Introduction to Clinical Education (1 unit)**
Orientation to clinical education including introduction to patient transportation techniques, film processing, office reception and filing procedures. Observation and introduction to basic radiographic procedures stressing radiation safety and protection. Techniques of cardiopulmonary resuscitation. Correlated to MED S 50, RAD T 1. **Prerequisites:** Acceptance into the radiologic technology program and concurrent enrollment in MED S 50 and RAD T 1. **Hours:** (54) 8 clinical experience for 6 weeks and 6 hours by arrangement. CCS: Occupational Education. Transferable: CSU and private colleges. Note: Offered in summer session only.

**RAD T 4B Clinical Education I (5 units)**
Supervised clinical experiences are provided to develop skills in basic radiographic procedures. Fundamentals of anatomy, positioning, technical factors and radiation safety and protection. Correlated with RAD T 2a. **Prerequisites:** Concurrent enrollment in Radiologic Technology Program and satisfactory completion of RAD T 4a. **Hours:** (288) 16 clinical experience. CCS: Occupational Education. Transferable: CSU and private colleges.

**RAD T 5 Radiation Physics (3 units)**
Physics of electromagnetic radiation, electricity, current, resistance, and interaction of radiation with matter. Types of x-ray machines, circuitry, x-ray tubes, production of x-rays and radiation protection safety. **Prerequisite:** Enrollment in Radiologic Technology Program. **Hours:** (90) 2 lect, 3 lab. CCS: Occupational Education. Transferable: CSU and private colleges.

**RAD T 6 Clinical Education 2 (6 units)**
Supervised clinical experiences are provided to perfect skills in a variety of basic radiographic procedures. Case studies of radio-
graphic procedures discussing the fundamentals of anatomy, positioning and technical factors of film quality are analyzed on a case-by-case basis. Correlated with RAD T 2b.

Prerequisite: Completion of first semester of Radiologic Technology Program with minimum grades of “C.” Hours: (288) 16 clinical experience to include one hour lecture. CCS: Occupational Education.

Transferable: CSU and private colleges.

RAD T 7 Clinical Education 3 (7 units)
Supervised clinical experiences are provided to perfect skills in a variety of radiographic procedures. Case studies of radiographic procedures discussing the fundamentals of anatomy, positioning and technical factors of film quality are analyzed on a case-by-case basis. Extension of radiographic procedures demonstrated in RAD T 2a, 2b.

Prerequisite: Completion of second semester of Radiologic Technology Program with minimum grades of “C.” Hours: (360) 40 hours clinical experience for 9 weeks to include two hours lecture.

CCS: Occupational Education.

Transferable: CSU and private colleges.

RAD T 9a Cross-Sectional Anatomy (1.5 units)
Provides an introduction to cross-sectional anatomy of the head, thorax, abdomen and pelvis. Emphasis on imaging modalities using cross-sectional anatomy in the field of radiology.

Prerequisite: Enrollment in Radiologic Technology Program or evaluation by instructor. Hours: (27) 1.5 lect. CCS: Occupational Education.

Transferable: CSU and private colleges.

RAD T 9b Principles of Mammography (.5 unit)
Instruction of the theory and practice of mammographic positioning, includes film anatomy and pathophysiology. Prerequisite: Concurrent enrollment in the Radiologic Technology Program or evaluation by instructor.

Hours: (9) 1 lect for 9 weeks. Field trip required. CCS: Occupational Education.

Transferable: CSU and private colleges.

RAD T 9c Introduction to Interventional Radiography (.5 unit)
Introduction to the principles of angiography, cardiac angiography, and interventional procedures. Lectures and demonstration include current angiographic trends with radiographic film correlation of anatomy. Prerequisite: Concurrent enrollment in the Radiologic Technology Program or evaluation by instructor. Hours: (9) 1 lect for 9 weeks.

CCS: Occupational Education.

Transferable: CSU and private colleges.

RAD T 10 Clinical Education 4 (7 units)
Supervised clinical experiences are provided to perfect skills in advanced radiographic procedures. Case studies of radiographic procedures discussing anatomy, pathology, positioning and technical factors of image quality are analyzed on a case-by-case basis. Correlated with RAD T 2c.

Prerequisite: Completion of first year of Radiologic Technology Program, RAD T 7 with minimum grades of “C.” Hours: (360) 20 hours clinical experience to include one hour lecture. CCS: Occupational Education.

Transferable: CSU and private colleges.

RAD T 11 Radiographic Pathology (2 units)

Hours: (36) 2 lect. CCS: Occupational Education.

Transferable: CSU and private colleges.

RAD T 12 Radiobiology and Radiation Protection (2 units)
Instruction in the fundamental concepts of radiation protection with review of current California Health and Safety codes pertaining to x-ray technology. Biological effects on living systems, as well as radiation units, dose determinations, and personnel monitoring are included. Prerequisite: Current enrollment in Radiologic Technology Program.

Hours: (36) 2 lect. CCS: Occupational Education.

Transferable: CSU and private colleges.

RAD T 13 Clinical Education 5 (9 units)
Supervised clinical experiences are provided to perfect skills in advanced radiographic
procedures. Designed to prepare the student for program completion and certification examinations. Prerequisite: Completion of third semester of Radiologic Technology Program with minimum grades of “C.” Hours: (504) 28 hours clinical experience. CCS: Occupational Education. Transferable: CSU and private colleges.

REGISTERED NURSING

NURS 1 Nursing Fundamentals (3 units) Provides a foundation of basic nursing arts and sciences necessary for the practice of nursing. Orientation of the nursing student to Board of Registered Nursing and college policies for graduation is discussed. The evaluation of the profession of nursing is discussed and trends identified. An understanding of the nursing process is developed. Concepts of the nurse, client and health care environment, professional nursing and nursing skills, growth and development of the adult, human needs in health and illness, basic physiological needs, and providing a safe environment are presented. Special nursing needs of the adult client, the perioperative client, the client experiencing loss, and for the dying client are presented. Satisfies the 0.5 unit educational planning requirement for graduation from Bakersfield College. Prerequisites: Admission to the ADN or VN Program or evaluation by instructor, concurrent enrollment in NURS 1L. Hours: (54) 3 lect. CCS: Occupational Education. Transferable: CSU and private colleges.

NURS 1g Gerontological Nursing (1 unit) Provides a foundation for basic gerontological nursing using demographics, theories of aging, and growth and development concepts as a framework for presenting the health problems and special concerns of the elderly. Legal and ethical issues and income, economics, and health care of older adults is discussed. Coverage of health problems uses a nursing process approach. Prerequisites: Admission to the ADN or VN Program or evaluation by instructor, concurrent enrollment in NURS 1gL. Hours: (18) 1 lect. CCS: Occupational Education. Transferable: CSU and private colleges.

NURS 1gL Gerontological Nursing Laboratory (1.5 units) Correlated laboratory experiences are provided with emphasis on the geriatric client. Concepts presented in NURS 1g are applied in various geriatric care facilities. Prerequisite: Concurrent enrollment in NURS 1gL. Hours: (81) clinical by arrangement. CCS: Occupational Education. Transferable: CSU and private colleges.

NURS 1L Nursing Fundamentals Laboratory (3 units) Correlated laboratory experiences are provided with adult clients who have basic health problems. Concepts presented in NURS 1 are applied in medical-surgical units of various hospitals. The student is guided by specific measurable laboratory objectives for each learning experience. Prerequisite: Concurrent enrollment in NURS 1L. Hours: (162) clinical by arrangement. CCS: Occupational Education. Transferable: CSU and private colleges.

NURS 3a Medical/Surgical Nursing (2 units) Provides a foundation for theoretical and technical knowledge base to care for adult clients and families. Focus is on identification and treatment of physiological and pathophysiological health problems and to promote and maintain optimal health. Coverage of health problems uses a nursing process approach. Prerequisites: Appropriate standing in the ADN Program or evaluation by program director, concurrent enrollment in NURS 3aL. Hours: (36) 2 lect. CCS: Occupational Education. Transferable: CSU and private colleges.

NURS 3aL Medical/Surgical Nursing Laboratory (2 units) Correlated laboratory experiences are provided with emphasis on the adult client. Concepts presented in NURS 3a are applied in a variety of hospital settings. Prerequisite: Concurrent enrollment in NURS 3a. Hours: (108) clinical by arrangement. CCS: Occupational Education. Transferable: CSU and private colleges.
NURS 3B Medical/Surgical Nursing (2 units)
NURS 3B builds on knowledge from NURS 3a and continues to provide theoretical and technical knowledge base to care for adult clients and families. Focus is further knowledge, identification and treatment of physiological and pathophysiological health problems in caring for clients with higher acuity and more complex comprehensive nursing needs and to promote and maintain optimal health. Coverage of health problems uses a nursing process approach. Prerequisites: Appropriate standing in the ADN Program or evaluation by program director, concurrent enrollment in NURS 3b. Hours: (36) 2 lab. CCS: Occupational Education. Transferable: CSU and private colleges.

NURS 3bL Medical/Surgical Nursing Laboratory (2.5 units)
NURS 3bL builds on knowledge from NURS 3aL with the continuation of correlated laboratory experiences provided with emphasis on the multiple adult and geriatric clients and families. Concepts presented in NURS 3b are applied in a variety of hospital settings. Laboratory emphasis from the previous semester changes and focuses on knowledge necessary to care for clients with higher acuity and more complex comprehensive nursing needs. Prerequisite: Concurrent enrollment in NURS 3b. Hours: (135) clinical by arrangement. CCS: Occupational Education. Transferable: CSU and private colleges.

NURS 6 Pediatric Nursing (1.5 units)
Provides a foundation for pediatric nursing using growth and development concepts as a framework for presenting health problems and special concerns of the pediatric client. Communication, anticipatory guidance, response to hospitalization, legal and ethical issues and health care of pediatric clients are discussed. Prerequisites: Admission to the ADN or VN Program or evaluation by instructor, concurrent enrollment in NURS 6L. Hours: (27) 1.5 lab. CCS: Occupational Education. Transferable: CSU and private colleges.

NURS 6L Pediatric Nursing Laboratory (1.5 units)
Correlated laboratory experiences are provided with emphasis on the pediatric client. Concepts presented in NURS 6 are applied in various pediatric settings. Prerequisites: Appropriate standing in ADN or VN program or evaluation by program director, concurrent enrollment in NURS 6. Hours: (81) clinical by arrangement. CCS: Occupational Education. Transferable: CSU and private colleges.

NURS 7 Maternal/Newborn Nursing (1.5 units)
Provides an overview of contemporary family-centered childbirth, incorporating the self-care movement and changing roles of the nurse. Legal and ethical issues of maternal/newborn nursing are discussed. Coverage of maternal/newborn nursing uses a nursing process approach. Prerequisites: Appropriate standing in the ADN or VN Program or evaluation by program director, concurrent enrollment in NURS 7L. Hours: (27) 1.5 lab. CCS: Occupational Education. Transferable: CSU and private colleges.

NURS 7L Maternal/Newborn Nursing Laboratory (1.5 units)
Correlated laboratory experiences are provided with emphasis on the maternal/newborn client. Concepts presented in NURS 7 are applied in various maternal/newborn facilities. Prerequisite: Concurrent enrollment in NURS 7. Hours: (81) clinical by arrangement. CCS: Occupational Education. Transferable: CSU and private colleges.

NURS 8 Psychiatric/Mental Health Nursing (2 units)
Provides a foundation for psychiatric/mental health nursing using the nursing process, growth and development concepts and psychosocial principles as the framework for presenting the health problems and special concerns of clients with mental/emotional or chemical dependency problems. Legal and ethical issues, communicating/responding strategies, assessment techniques and treatment approaches are discussed. Prerequisites: Admission to the ADN Program or evaluation by instructor, concurrent enroll-
ment in NURS 8L. **Hours:** (36) 2 lect. CCS: Occupational Education. **Transferable:** CSU and private colleges.

**NURS 8L Psychiatric/Mental Health Nursing Laboratory (1.5 units)**
Correlated laboratory experiences are provided with emphasis on the psychiatric/mental health client. Concepts presented in NURS 8 are applied in psychiatric and chemical dependency facilities. **Prerequisite:** Concurrent enrollment in NURS 8. **Hours:** (81) clinical by arrangement. CCS: Occupational Education. **Transferable:** CSU and private colleges.

**NURS 9 Advanced Medical Surgical Nursing (3 units)**
Focus is on the integration of all previous knowledge in assuming the leadership role of the professional nurse providing nursing care at an advanced level to clients with clinical and complex disease states and to groups of clients. Coverage of health problems uses a nursing process approach. **Prerequisites:** Appropriate standing in ADN Program or evaluation by program director, concurrent enrollment in NURS 9L. **Hours:** (54) 3 lect. CCS: Occupational Education. **Transferable:** CSU and private colleges.

**NURS 9L Advanced Medical Surgical Nursing Laboratory (5 units)**
Correlated laboratory experiences are provided with emphasis on providing care at an advanced level to clients with critical and complex disease states and to groups of clients. Concepts presented in NURS 9 are applied in various acute care settings. **Prerequisites:** Appropriate standing in ADN Program or evaluation by program director, concurrent enrollment in NURS 9. **Hours:** (270) clinical by arrangement. CCS: Occupational Education. **Transferable:** CSU and private colleges.

**NURS 10 Nursing Management/Leadership (1.5 units)**
Provides a foundation for nursing management/leadership using the nursing process as the framework for presenting concepts and principles of management and leadership. This course integrates all previous knowledge preparing the student to assume the leadership role of the professional nurse and to provide nursing care at an advanced level to clients with critical and complex needs and to groups of clients. Legal and ethical issues, issues of professional practice, and the application of leadership skills and management techniques are discussed. **Prerequisite:** Admission to the ADN Program or evaluation by instructor. **Hours:** (27) 1.5 lect. CCS: Occupational Education. **Transferable:** CSU and private colleges.

**NURS 31 Basic Pharmacology (2 units)**
Provides a foundation for basic pharmacological nursing using concepts of growth and development throughout the life span, pharmacology and drug administration as a framework for presenting the problems and special concerns of the client using medications. Legal and ethical issues, nursing responsibilities and client participation associated with medication administration are discussed. A nursing process approach is utilized throughout every aspect of drug study and drug administration. **Prerequisite:** Admission to the ADN or VN Program or evaluation by instructor. **Hours:** (36) 2 lect. CCS: Occupational Education. **Transferable:** CSU and private colleges.

**NURS 32 Advanced Pharmacology (2 units)**
Provides a foundation of the theoretical and technical knowledge base necessary in meeting pharmacological needs of the client in a variety of settings. Professional issues and concepts for nursing practice related to intravenous therapy are presented including techniques of intravenous therapy and intravenous drug administration. **Prerequisite:** Enrollment in third semester of a registered nurse program or current RN licensure. **Hours:** (36) 2 lect. CCS: Occupational Education. **Transferable:** CSU and private colleges.

**NURS 35 Normal Growth and Development (2 units)**
Study of normal human growth and development throughout the life span. Bio-physical, cognitive and psychosocial development are discussed. Health maintenance issues at all age levels are included. Concepts of death and dying
as they relate to age, viewed in terms of health professionals’ role in assisting clients, are stressed. **Prerequisite:** Enrollment in the RN or VN Program or evaluation by instructor. **Hours:** (36) 3 lect. CCS: Occupational Education. **Transferable:** CSU and private colleges.

**NURS 50 Advanced VN Pharmacology (1 unit)**
Designed to prepare the student vocational nurse to function safely as a medicine nurse in a hospital unit. The course includes responsibilities of the medication nurse, drug abuse, drug effects on laboratory tests, drug incompatibilities and interactions, patient teaching and computation of children’s dosage. **Prerequisite:** Appropriate standing in the VN Program or NURS 31 with a minimum grade of “C” or evaluation by instructor. **Hours:** (18) 1 lect. CCS: Occupational Education. **Not Transferable:** Associate Degree only.

**VOCATIONAL NURSING**
Individual courses within the Vocational Nursing Program are not transferable. However, the Board of Registered Nursing (BRN) mandates that Licensed Vocational Nurses be given credit for previous education in nursing if they apply for admission to a professional nursing program.

**NURS 1 Nursing Fundamentals (3 units)**
Provides a foundation of basic nursing arts and sciences necessary for the practice of nursing. Orientation of the nursing student to Board of Registered Nursing and college policies for graduation is discussed. The evaluation of the profession of nursing is discussed and trends identified. An understanding of the nursing process is developed. Concepts of the nurse, client and health care environment, professional nursing and nursing skills, growth and development of the adult, human needs in health and illness, basic physiological needs, and providing a safe environment are presented. Special nursing needs of the adult client, the perioperative client, the client experiencing loss, and for the dying client are presented. Satisfies the 0.5 unit educational planning requirement for graduation from Bakersfield College. **Prerequisites:** Admission to the ADN or VN Program or evaluation by instructor, concurrent enrollment in NURS 1L. **Hours:** (54) 3 lect. CCS: Occupational Education. **Not Transferable:** Associate Degree only.

**NURS 1Lv-2Lv-3Lv Clinical Laboratory Experience (6-6-6 units)**
Correlated laboratory experiences in health care facilities are provided. Concepts learned in the didactic phases of the Vocational Nursing Program are applied to caring for clients with a variety of health care needs. Student is guided by specific measurable laboratory objectives for each learning experience. **Prerequisite:** Appropriate standing in the VN Program. **Hours:** (324–324–324) 18 clinical by arrangement. CCS: Occupational Education. **Not Transferable:** Associate Degree only.

**V NURS 54 Cardiovascular Nursing (2 units)**
Provides a study of etiology, assessment, planning, intervention and evaluation of adult clients with illnesses affecting the cardiovascular system. Includes diagnostic procedures, symptomatology, dietary needs and the treatment modalities for adult clients with illnesses affecting the cardiovascular system. **Prerequisite:** Appropriate standing in the VN Program. **Hours:** (36) 2 lect. CCS: Occupational Education. **Not Transferable:** Associate Degree only.

**V NURS 56 Gastrointestinal Nursing and Nutrition (3 units)**
Provides a study of etiology, assessment, planning, intervention and evaluation of adult clients with illnesses affecting the gastrointestinal system. Includes principles of nutrition with an understanding and knowledge of nutritional needs of clients throughout the life span. **Prerequisite:** Appropriate standing in the VN Program. **Hours:** (54) 3 lect. CCS: Occupational Education. **Not Transferable:** Associate Degree only.

**V NURS 57 Respiratory Nursing (2 units)**
Provides a study of etiology, assessment, planning, intervention and evaluation of adult clients with illnesses affecting the respiratory system. Includes causes, signs and symp-
toms, medication therapy and treatment modalities for adult clients with illnesses affecting the respiratory system. **Prerequisite:** Appropriate standing in the VN Program. **Hours:** (36) 2 lect. CCS: Occupational Education. **Not Transferable:** Associate Degree only.

**V NRS 58 Endocrine Nursing (1 unit)**
A study of the etiology, symptomatology, treatment, dietary needs, and nursing care of patients of all ages, with disorders of the endocrine system. **Prerequisite:** Appropriate standing in the VN Program. **Hours:** (18) 1 lect. CCS: Occupational Education. **Not Transferable:** Associate Degree only.

**V NRS 60 Musculoskeletal Nursing (2 units)**
Provides a study of etiology, assessment, planning, intervention and evaluation of adult clients with illnesses affecting the musculoskeletal system. Includes diagnostic procedures, symptomatology, dietary needs and the treatment modalities for adult clients with illnesses affecting the musculoskeletal system. **Prerequisite:** Appropriate standing in the VN Program. **Hours:** (36) 2 lect. CCS: Occupational Education. **Not Transferable:** Associate Degree only.

**V NRS 61 Genitourinary Nursing (2 units)**
Provides a study of etiology, assessment, planning, intervention and evaluation of adult clients with illnesses affecting the genitourinary system. Includes diagnostic procedures, symptomatology, dietary needs and the treatment modalities for adult clients with illnesses affecting the genitourinary system. **Prerequisite:** Appropriate standing in the VN Program. **Hours:** (36) 2 lect. CCS: Occupational Education. **Not Transferable:** Associate Degree only.

**V NRS 62 Neurosensory Nursing (2 units)**
Provides a study of etiology, assessment, planning, intervention and evaluation of adult clients with illnesses affecting the neurosensory system. Includes causes, signs and symptoms, medication therapy and treatment modalities for adult clients with illnesses affecting the neurosensory system. **Prerequisite:** Appropriate standing in the VN Program. **Hours:** (36) 2 lect. CCS: Occupational Education. **Not Transferable:** Associate Degree only.

**V NRS 63 Integumentary Nursing (1 unit)**
Provides a study of etiology, assessment planning, intervention and evaluation of adult clients with conditions affecting the integumentary system. Includes etiology, symptomatology, treatment, dietary needs and treatment modalities for adult clients with conditions of the integumentary system. **Prerequisite:** Appropriate standing in the VN Program. **Hours:** (18) 1 lect. CCS: Occupational Education. **Not Transferable:** Associate Degree only.
Applied Science & Technology

- Air Conditioning & Refrigeration
- Apprenticeship
- Automated Production & Manufacturing Processes Technology
- Automotive Technology
- Construction Technology
- Electrical/Electronics Technology
- Engineering Technology
- Environmental Technology
- Industrial Drawing/Computer Aided Design
- Industrial Technology
- Mechanized Agriculture
- Water Technology
- Welding Technology
- Woodworking/Cabinetmaking Technology
Programs in the Applied Science and Technology Division prepare individuals for technical and leadership responsibilities within a broad range of industries including, but not limited to, manufacturing, communications, transportation, energy, government, education, and utility services. Examples of job descriptions are production manager, quality control manager, plant/facility manager, industrial salesperson, industrial service representative, construction supervisor, safety manager, teacher, etc.

Students should develop programs with the aid of departmental counselor or advisor. Studies may lead to short-term career goals, the Certificate of Achievement or the Associate Degree. Students may also choose lower division courses that transfer to the Bachelor of Arts or Bachelor of Science Degree in Industrial Arts or Industrial Technology. Some classes listed as "not transferable" may actually transfer as electives in an Industrial Arts or Technology major. Check with the departmental counselors at the college you wish to transfer to for specific details.

CERTIFICATES OF ACHIEVEMENT
These training programs are designed for those who prefer career specialization and the earliest possible opportunity for job placement and/or the establishment of a small business. Students may continue toward more advanced courses, an Associate Degree, or transfer to a four-year institution.

Programs offering these specialized certificates include: Automotive Brakes and Wheel Alignment, Engine Overhaul, Automatic Transmission Repair, Tune-Up and Emission Control, Environmental Hazardous Materials Technology, Construction, Cabinetmaking, Electronics Technology, Automated Production and Manufacturing Processes, and Welding. Each program consists of basic requirements and suggested electives. Electives should be selected in consultation with faculty advisors and counselors.

Upon completion of the requirements, the student may apply to the division office for a Certificate of Achievement. Certificates are awarded upon recommendation by lead instructors and the department chairperson.

AUTOMATED PRODUCTION AND MANUFACTURING PROCESSES CERTIFICATE PROGRAM
Minimum units required: 30

Required Courses

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<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>APMPT 1ab</td>
<td>Introduction to Machine Tool Processes</td>
<td>3.0</td>
</tr>
<tr>
<td>APMPT 50</td>
<td>Introduction to Automated Production and Manufacturing Processes</td>
<td>1.5</td>
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<tr>
<td>APMPT 51</td>
<td>Introduction to Programmable Electronic Controllers (PEC)</td>
<td>3.0</td>
</tr>
<tr>
<td>APMPT 55</td>
<td>Introduction to Numerical Control and Fundamentals of Programming</td>
<td>3.0</td>
</tr>
<tr>
<td>APMPT 56</td>
<td>Computer Numerical Control Milling Machine</td>
<td>3.0</td>
</tr>
<tr>
<td>IN DR 10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>IN DR 11</td>
<td>Introduction to Computer Aided Drafting and Design (CADD)</td>
<td>1.0</td>
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<tr>
<td>WELD 1ab</td>
<td>Introduction to the Welding Processes</td>
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<tr>
<td>ELET 1</td>
<td>Basic Electricity</td>
<td>4.0</td>
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<tr>
<td>TEC M 52</td>
<td>Introduction to Technical Mathematics Equivalent</td>
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Electives

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<tbody>
<tr>
<td>ENGL 1</td>
<td>Introductory Composition</td>
<td>4.0</td>
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<tr>
<td>MECT 54a</td>
<td>Blueprint Reading for Welders and Machinists</td>
<td>3.0</td>
</tr>
<tr>
<td>WELD 53ab</td>
<td>Shielded Metal Arc Welding</td>
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<tr>
<td>IN DR 20</td>
<td>Computer Aided Drafting and Design</td>
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<tr>
<td>IND T 50</td>
<td>Managing Quality Organizations</td>
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<tr>
<td>IND T 249</td>
<td>Cooperative Work Experience Education</td>
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<tr>
<td>IND T 273</td>
<td>Special Problems in Machine Tool Metal Working</td>
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AUTO BRAKES AND WHEEL ALIGNMENT CERTIFICATE PROGRAM
Minimum units required: 26

Required Courses

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<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>AUTO 103</td>
<td>Automotive and Light Truck Brake Systems</td>
<td>4.0</td>
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<tr>
<td>AUTO 108</td>
<td>Automotive Suspension, Steering and Alignment</td>
<td>6.0</td>
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<tr>
<td>AUTO 102</td>
<td>or Automotive Engine Overhaul</td>
<td>9.0</td>
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<tr>
<td>AUTO 75a &amp; 75b</td>
<td>Introduction to Engine Overhaul</td>
<td>3.0</td>
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<tr>
<td>AUTO 75b</td>
<td>Engine Repair Techniques</td>
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<tbody>
<tr>
<td>AUTO 64a</td>
<td>Automotive Electricity</td>
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<tr>
<td>TEC M 52 or</td>
<td>Introduction to Technical Mathematics</td>
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**Electives**

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<th>Title</th>
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<tbody>
<tr>
<td>AUTO 63</td>
<td>Automotive Carburetion and Fuel Injection</td>
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<tr>
<td>AUTO 65</td>
<td>Automotive Emission Control Devices</td>
<td>4.0</td>
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<tr>
<td>AUTO 114</td>
<td>Automotive Tune-Up: Electrical and Ignitions</td>
<td>10.0</td>
</tr>
<tr>
<td>WELD 1ab</td>
<td>Introduction to the Welding Processes</td>
<td>3.0</td>
</tr>
<tr>
<td>IND T 249</td>
<td>Cooperative Work Experience Education</td>
<td>4.0</td>
</tr>
<tr>
<td>IND T 275</td>
<td>Special Problems in Automotives</td>
<td>1-3.0</td>
</tr>
</tbody>
</table>

**AUTO ENGINE OVERHAUL CERTIFICATE PROGRAM**

Minimum units required: 26

**Required Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 102a</td>
<td>Automotive Engine Overhaul</td>
<td>9.0</td>
</tr>
<tr>
<td>AUTO 102b or</td>
<td>Automotive Engines Machining</td>
<td>9.0</td>
</tr>
<tr>
<td>AUTO 75a &amp;</td>
<td>Introduction to Engine Overhaul</td>
<td>3.0</td>
</tr>
<tr>
<td>AUTO 75b &amp;</td>
<td>Engine Repair Techniques</td>
<td>3.0</td>
</tr>
<tr>
<td>AUTO 75c &amp;</td>
<td>Advanced Engine Overhaul</td>
<td>3.0</td>
</tr>
<tr>
<td>AUTO 75d</td>
<td>Advanced Engine Machining</td>
<td>3.0</td>
</tr>
<tr>
<td>APMPT 1ab</td>
<td>Introduction to Machine Tool Processes</td>
<td>3.0</td>
</tr>
<tr>
<td>TEC M 52 or</td>
<td>Introduction to Technical Mathematics</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Electives**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 63</td>
<td>Automotive Carburetion and Fuel Injection</td>
<td>2.0</td>
</tr>
<tr>
<td>AUTO 65</td>
<td>Automotive Emission Control Devices</td>
<td>4.0</td>
</tr>
<tr>
<td>AUTO 108</td>
<td>Automotive Suspension Steering and Alignment</td>
<td>6.0</td>
</tr>
<tr>
<td>APMPT 1ab</td>
<td>Introduction to Machine Tool Processes</td>
<td>3.0</td>
</tr>
<tr>
<td>IND T 249</td>
<td>Cooperative Work Experience Education</td>
<td>4.0</td>
</tr>
<tr>
<td>IND T 275</td>
<td>Special Problems in Automotives</td>
<td>1-3.0</td>
</tr>
</tbody>
</table>

**AUTO TUNE-UP CERTIFICATE PROGRAM**

Minimum units required: 28

**Required Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
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<tbody>
<tr>
<td>AUTO 59</td>
<td>Automotive Air Conditioning</td>
<td>2.0</td>
</tr>
<tr>
<td>AUTO 114</td>
<td>Automotive Tune-Up: Electrical and Ignitions</td>
<td>10.0</td>
</tr>
<tr>
<td>AUTO 115</td>
<td>Automotive Tune-Up: Fuel and Emissions</td>
<td>10.0</td>
</tr>
<tr>
<td>TEC M 52 or</td>
<td>Introduction to Technical Mathematics</td>
<td>3.0</td>
</tr>
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**Electives**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>AUTO 65</td>
<td>Automotive Emission Control Devices</td>
<td>4.0</td>
</tr>
<tr>
<td>AUTO 102a</td>
<td>Automotive Engine Overhaul</td>
<td>9.0</td>
</tr>
<tr>
<td>ELE T 1</td>
<td>Basic Electricity</td>
<td>4.0</td>
</tr>
<tr>
<td>ENGL</td>
<td>Approved Course</td>
<td>4.0</td>
</tr>
<tr>
<td>CS 50a</td>
<td>Introduction to the Microcomputer and MS DOS</td>
<td>1.0</td>
</tr>
<tr>
<td>IND T 249</td>
<td>Cooperative Work Experience Education</td>
<td>1-4.0</td>
</tr>
<tr>
<td>IND T 275</td>
<td>Special Problems in Automotives</td>
<td>1-3.0</td>
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**CABINETMAKING CERTIFICATE PROGRAM**

Minimum units required: 33

**Required Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>WOOD 1</td>
<td>Beginning Hand Woodworking</td>
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</tr>
<tr>
<td>WOOD 2</td>
<td>Beginning Machine Woodworking</td>
<td>3.0</td>
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### Required Courses

<table>
<thead>
<tr>
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<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNSTR 1</td>
<td>Introduction to Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>CNSTR 4a &amp; 4b</td>
<td>Cabinetmaking and Millwork</td>
<td>4.0</td>
</tr>
<tr>
<td>WOOD 55</td>
<td>Intermediate Cabinetmaking</td>
<td>3.0</td>
</tr>
<tr>
<td>WOOD 65a &amp; 65b</td>
<td>Advanced Cabinetmaking</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL</td>
<td>Approved Course</td>
<td>4.0</td>
</tr>
<tr>
<td>TEC M 52 or 55a</td>
<td>Introduction to Technical Mathematics</td>
<td>3.0</td>
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### Electives

<table>
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<tr>
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<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>IN DR 10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
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</table>

### Construction Technology Certificate Program

Minimum units required: **30**

### Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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<tr>
<td>CNSTR 1</td>
<td>Introduction to Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>CNSTR 2</td>
<td>Blueprint Reading and Estimating</td>
<td>3.0</td>
</tr>
<tr>
<td>CNSTR 4a or 4b</td>
<td>Cabinetmaking and Millwork</td>
<td>4.0</td>
</tr>
<tr>
<td>WOOD 55</td>
<td>Intermediate Cabinetmaking</td>
<td>3.0</td>
</tr>
<tr>
<td>WOOD 65a or 65b</td>
<td>Advanced Cabinetmaking</td>
<td>3.0</td>
</tr>
<tr>
<td>IND T 249</td>
<td>Cooperative Work Experience Education</td>
<td>4.0</td>
</tr>
<tr>
<td>IN DR 11</td>
<td>Introduction to Computer Aided Drafting and Design (CADD)</td>
<td>1.0</td>
</tr>
<tr>
<td>IN DR 20a</td>
<td>Computer Aided Drafting and Design (CADD)</td>
<td>3.0</td>
</tr>
<tr>
<td>FORES 2</td>
<td>Natural Resources</td>
<td>3.0</td>
</tr>
<tr>
<td>INT D 15a</td>
<td>Elements and Principles of Interior Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 1</td>
<td>Introductory Composition</td>
<td>4.0</td>
</tr>
</tbody>
</table>

### Electives

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN DR 20a</td>
<td>Computer Aided Drafting and Design (CADD)</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 33</td>
<td>Architectural Computer Practice</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 60a</td>
<td>Residential Architecture—Designing the Home</td>
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</tr>
<tr>
<td>ARCH 60b</td>
<td>Residential Architecture—Drawing the Plans</td>
<td>1.0</td>
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**Note:** Students should consult with their counselors for best possible selections for their programs of study.

### Electronics Technology Certificate Program

Minimum units required: **31**

### Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ELET 1</td>
<td>Basic Electricity</td>
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</tr>
<tr>
<td>ELET 2</td>
<td>Passive Circuit Analysis</td>
<td>4.0</td>
</tr>
<tr>
<td>ELET 9</td>
<td>Semiconductor Circuit Analysis</td>
<td>4.0</td>
</tr>
<tr>
<td>ELET 12</td>
<td>Digital Logic</td>
<td>4.0</td>
</tr>
<tr>
<td>ELET 66a</td>
<td>Electronic Communications Circuits</td>
<td>4.0</td>
</tr>
<tr>
<td>ELET 66b</td>
<td>Electronic Communications Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH A or 50a</td>
<td>Elementary Algebra</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 50a</td>
<td>Introduction to Microcomputer and MS DOS</td>
<td>1.0</td>
</tr>
<tr>
<td>APMPT 51</td>
<td>Introduction to Programmable Electronic Controllers (PEC)</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### Environmental Technology Certificate

Environmental Hazardous Materials Technology refers to the knowledge and skills that enable a person to work with hazardous materials safely and in compliance with governmental regulations in order to protect human health and the environment.

Minimum units required: **36**

### Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EHMT 49 or 49a</td>
<td>Applied Chemistry</td>
<td>4.0</td>
</tr>
<tr>
<td>CHEM 49</td>
<td>Applied Chemistry</td>
<td>4.0</td>
</tr>
<tr>
<td>EHMT 1</td>
<td>Introduction to Hazardous Materials and Safety Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>EHMT 10a</td>
<td>Hazardous Materials Awareness and Safety</td>
<td>1.0</td>
</tr>
<tr>
<td>EHMT 10b</td>
<td>Spill Control and Emergency Response</td>
<td>1.5</td>
</tr>
<tr>
<td>EHMT 10c</td>
<td>Decision Making in Emergencies</td>
<td>1.5</td>
</tr>
<tr>
<td>EHMT 20</td>
<td>Hazardous Waste Generation, Reduction, and Treatment</td>
<td>3.0</td>
</tr>
<tr>
<td>EHMT 30</td>
<td>Health Effects of Hazardous Materials</td>
<td>3.0</td>
</tr>
<tr>
<td>EHMT 15a</td>
<td>Right-to-Know Laws</td>
<td>1.5</td>
</tr>
<tr>
<td>EHMT 15b</td>
<td>Transportation and Storage of Hazardous Materials</td>
<td>1.5</td>
</tr>
<tr>
<td>EHMT 15c</td>
<td>Air Quality Issues</td>
<td>1.0</td>
</tr>
<tr>
<td>EHMT 40a</td>
<td>Generator Requirements</td>
<td>1.5</td>
</tr>
<tr>
<td>EHMT 40b</td>
<td>Sampling and Analysis</td>
<td>1.5</td>
</tr>
<tr>
<td>EHMT 40c</td>
<td>Special Topics in Hazardous Waste Management</td>
<td>1.0</td>
</tr>
<tr>
<td>HL SC 1</td>
<td>Survey of Anatomy and Physiology</td>
<td>4.0</td>
</tr>
<tr>
<td>BIOL 7</td>
<td>Environment</td>
<td>3.0</td>
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(Continued next page)
### Electives

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPCH 1</td>
<td>Speech Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 5</td>
<td>Introduction to Microcomputer</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSMG 65a</td>
<td>Basic Principles of English for Business/Public Organization</td>
<td>1.0</td>
</tr>
<tr>
<td>BUSMG 65b</td>
<td>Principles of Writing for Business/Public Organization</td>
<td>1.0</td>
</tr>
<tr>
<td>BUSMG 65c</td>
<td>Organizational Communications</td>
<td>1.0</td>
</tr>
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</table>

### WELDING CERTIFICATE PROGRAM

**Minimum units required:** 26

#### Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 1ab</td>
<td>Introduction to the Welding Processes</td>
<td>3.0</td>
</tr>
<tr>
<td>WELD 53ab</td>
<td>Shielded Metal Arc Welding</td>
<td>3.0</td>
</tr>
<tr>
<td>WELD 55ab</td>
<td>Structural Plate Certification</td>
<td>3.0</td>
</tr>
<tr>
<td>WELD 55cd</td>
<td>ASME Pipe Certification</td>
<td>3.0</td>
</tr>
<tr>
<td>WELD 74ab</td>
<td>TIG and MIG Welding</td>
<td>3.0</td>
</tr>
<tr>
<td>APMP1 1a</td>
<td>Introduction to Machine Tool Processes</td>
<td>1.5</td>
</tr>
<tr>
<td>MEC T 54a</td>
<td>Blueprint Reading for Welders and Machinists</td>
<td>3.0</td>
</tr>
<tr>
<td>TEC M 52 or</td>
<td>Introduction to Technical Mathematics Equivalent</td>
<td>3.0</td>
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#### Electives

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ENGL</td>
<td>Approved Course</td>
<td>4.0</td>
</tr>
<tr>
<td>IN DR 10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>IND T 271</td>
<td>Special Problems in Welding</td>
<td>1-3.0</td>
</tr>
<tr>
<td>ELE T 1</td>
<td>Basic Electricity</td>
<td>4.0</td>
</tr>
<tr>
<td>WELD 65cd</td>
<td>API and Related Certification Testing</td>
<td>3.0</td>
</tr>
<tr>
<td>MEC T 54b</td>
<td>Template Development and Layout for the Welder</td>
<td>3.0</td>
</tr>
<tr>
<td>EHMT 10a</td>
<td>Hazardous Materials Awareness and Safety</td>
<td>1.0</td>
</tr>
<tr>
<td>APMP1 50</td>
<td>Introduction to Automated Production and Manufacturing Processes</td>
<td>1.5</td>
</tr>
<tr>
<td>IN DR 11</td>
<td>Introduction to Computer Aided Drafting and Design</td>
<td>1.0</td>
</tr>
<tr>
<td>WEXP 249</td>
<td>Cooperative Work Experience Education</td>
<td>1.0</td>
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</tbody>
</table>

### ASSOCIATE DEGREE PROGRAMS

**Students are encouraged to continue their education beyond the Certificate of Achievement by taking additional technical and general education courses which lead to an Associate in Science or Associate in Arts Degree.**

Students must comply with the requirements as shown in the catalog under Graduation Requirements. IND T 10, Introduction to Industrial Technology, is strongly recommended for all Industrial Technology majors. It will satisfy the educational planning requirement for graduation. Counselors/advisors will assist the student in planning for an Associate Degree.

### ASSOCIATE IN ARTS DEGREE PROGRAMS

#### INDUSTRIAL DRAWING

**Minimum units required in related discipline:** 18

#### Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN DR 10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>IN DR 11</td>
<td>Introduction to Computer Aided Drafting and Design (CADD)</td>
<td>1.0</td>
</tr>
<tr>
<td>IN DR 20a</td>
<td>Computer Aided Drafting and Design (CADD)</td>
<td>3.0</td>
</tr>
<tr>
<td>IN DR 50</td>
<td>Process Piping Drafting</td>
<td>4.0</td>
</tr>
<tr>
<td>IN DR 51</td>
<td>Electrical Design I</td>
<td>2.5</td>
</tr>
<tr>
<td>IN DR 53a</td>
<td>Petroleum Map Drafting</td>
<td>3.0</td>
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#### Electives

<table>
<thead>
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<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>MATH B</td>
<td>Geometry</td>
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<tr>
<td>IN DR 20b</td>
<td>Computer Aided Drafting and Design (CADD)</td>
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<tr>
<td>IN DR 30b</td>
<td>Industrial Drawing</td>
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</table>

### ASSOCIATE IN SCIENCE DEGREE PROGRAMS

#### AERONAUTICS

**Minimum units required in related discipline:** 30

#### Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>AER02</td>
<td>Aviation Fundamentals</td>
<td>3.0</td>
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<tr>
<td>AER051</td>
<td>Instrument Flight Rules and Fundamentals</td>
<td>3.0</td>
</tr>
<tr>
<td>AER052</td>
<td>Airspace and Air Traffic Control</td>
<td>3.0</td>
</tr>
<tr>
<td>AER053</td>
<td>Advanced Flight Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>AER054</td>
<td>Aviation Meteorology</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH D</td>
<td>Intermediate Algebra</td>
<td>4.0</td>
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<tr>
<td>PHYSIC 2a</td>
<td>General Physics—Mechanics and Heat</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYSIC 2b</td>
<td>General Physics—Sound, Light, Electricity, Magnetism, Modern Physics</td>
<td>4.0</td>
</tr>
<tr>
<td>CS 2</td>
<td>Introduction to Computer Information Systems</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Note:** No new students will be admitted to the Aeronautics Program as it will be discontinued effective Spring 1997.
**Environmental Hazardous Materials Technology**

Environmental Hazardous Materials Technology refers to the knowledge and skills that enable a person to work with hazardous materials safely and in compliance with governmental regulations in order to protect human health and the environment.

**Minimum units required: 36**

**Required Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>EHMT 49 or</td>
<td>Applied Chemistry</td>
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<tr>
<td>CHEM 49</td>
<td>Applied Chemistry</td>
<td>4.0</td>
</tr>
<tr>
<td>EHMT 1</td>
<td>Introduction to Hazardous Materials and Safety Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>EHMT 10a</td>
<td>Hazardous Materials Awareness and Safety</td>
<td>1.0</td>
</tr>
<tr>
<td>EHMT 10b</td>
<td>Spill Control and Emergency Response</td>
<td>1.5</td>
</tr>
<tr>
<td>EHMT 10c</td>
<td>Decision Making in Emergencies</td>
<td>1.5</td>
</tr>
<tr>
<td>EHMT 20</td>
<td>Hazardous Waste Generation, Reduction, and Treatment</td>
<td>3.0</td>
</tr>
<tr>
<td>EHMT 30</td>
<td>Health Effects of Hazardous Materials</td>
<td>3.0</td>
</tr>
<tr>
<td>EHMT 15a</td>
<td>Right-to-Know Laws</td>
<td>1.5</td>
</tr>
<tr>
<td>EHMT 15b</td>
<td>Transportation and Storage of Hazardous Materials</td>
<td>1.5</td>
</tr>
<tr>
<td>EHMT 15c</td>
<td>Air Quality Issues</td>
<td>1.0</td>
</tr>
<tr>
<td>EHMT 40a</td>
<td>Generator Requirements</td>
<td>1.5</td>
</tr>
<tr>
<td>EHMT 40b</td>
<td>Sampling and Analysis</td>
<td>1.5</td>
</tr>
<tr>
<td>EHMT 40c</td>
<td>Special Topics in Hazardous Waste Management</td>
<td>1.0</td>
</tr>
<tr>
<td>HL SC 1</td>
<td>Survey of Anatomy and Physiology</td>
<td>4.0</td>
</tr>
<tr>
<td>BIOL 7</td>
<td>Environment</td>
<td>3.0</td>
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**Electives**

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<tr>
<td>CS 5</td>
<td>Introduction to Microcomputer Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSMG 65a</td>
<td>Basic Principles of English for Business/Public Organization</td>
<td>1.0</td>
</tr>
<tr>
<td>BUSMG 65b</td>
<td>Principles of Writing for Business/Public Organization</td>
<td>1.0</td>
</tr>
<tr>
<td>BUSMG 65c</td>
<td>Organizational Communications</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Minimum units required: 30**

**Industrial Technology (General)**

Minimum units required: 30

**Required Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>APMPT 1ab</td>
<td>Introduction to Machine Tool Processes</td>
<td>3.0</td>
</tr>
<tr>
<td>APMPT 50</td>
<td>Introduction to Automated Production and Manufacturing Processes</td>
<td>3.0</td>
</tr>
<tr>
<td>APMPT 51</td>
<td>Introduction to Programmable Electronic Controllers (PEC)</td>
<td>3.0</td>
</tr>
<tr>
<td>ELET 1</td>
<td>Basic Electricity</td>
<td>4.0</td>
</tr>
<tr>
<td>IN DR 10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>IN DR 11</td>
<td>Introduction to Computer Aided Drafting and Design (CADD)</td>
<td>3.0</td>
</tr>
<tr>
<td>MEC T 54a</td>
<td>Blueprint Reading for Welders and Machinists</td>
<td>3.0</td>
</tr>
<tr>
<td>WELD 1ab</td>
<td>Introduction to the Welding Processes</td>
<td>3.0</td>
</tr>
</tbody>
</table>

(Continued next page)
**Electives**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 53ab</td>
<td>Shielded Metal Arc Welding</td>
<td>3.0</td>
</tr>
<tr>
<td>IN DR 20a</td>
<td>Computer Aided Drafting and Design (CADD)</td>
<td>3.0</td>
</tr>
<tr>
<td>IND T 50</td>
<td>Managing Quality Organizations</td>
<td>3.0</td>
</tr>
<tr>
<td>IND T 249</td>
<td>Cooperative Work Experience Education</td>
<td>1.0</td>
</tr>
<tr>
<td>IND T 273</td>
<td>Special Problems in Tool Metal Working</td>
<td>1.0-3.0</td>
</tr>
</tbody>
</table>

**INDUSTRIAL TECHNOLOGY AUTOMOTIVE OPTION**

Minimum units required in discipline: 32

**Select From**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO 102a</td>
<td>Automotive Engine Overhaul</td>
<td>9.0</td>
</tr>
<tr>
<td>AUTO 102b</td>
<td>Automotive Engines Machining</td>
<td>9.0</td>
</tr>
<tr>
<td>AUTO 103</td>
<td>Automotive and Light Truck Brake Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>AUTO 108</td>
<td>Automotive Suspension, Steering and Alignment</td>
<td>6.0</td>
</tr>
<tr>
<td>AUTO 112a</td>
<td>Automatic Transmissions Overhaul and Service</td>
<td>8.0</td>
</tr>
<tr>
<td>AUTO 112b</td>
<td>Standard Transmissions and Power Train Service</td>
<td>4.0</td>
</tr>
<tr>
<td>AUTO 114</td>
<td>Automotive Tune-Up: Electrical and Ignitions</td>
<td>10.0</td>
</tr>
<tr>
<td>AUTO 115</td>
<td>Automotive Tune-Up: Fuel and Emissions</td>
<td>10.0</td>
</tr>
<tr>
<td>ELE T 1</td>
<td>Basic Electricity</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**INDUSTRIAL TECHNOLOGY CONSTRUCTION OPTION**

Minimum units required: 30

**Required Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNSTR 1</td>
<td>Introduction to Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>CNSTR 2</td>
<td>Blueprint Reading and Estimating</td>
<td>3.0</td>
</tr>
<tr>
<td>CNSTR 4a or 5a or 5b</td>
<td>Cabinetmaking and Millwork</td>
<td>4.0 or 3.0</td>
</tr>
<tr>
<td>WOOD 55</td>
<td>Intermediate Cabinekmaking</td>
<td>3.0</td>
</tr>
<tr>
<td>CNSTR 55a or 55b</td>
<td>Residential Construction</td>
<td>5.0 or 5.0</td>
</tr>
<tr>
<td>IND T 249</td>
<td>Cooperative Work Experience Education</td>
<td>4.0</td>
</tr>
<tr>
<td>IN DR 10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>ARCH 45</td>
<td>Building Codes</td>
<td>3.0</td>
</tr>
<tr>
<td>WOOD 2</td>
<td>Beginning Machine Woodworking</td>
<td>3.0</td>
</tr>
<tr>
<td>IND T 10</td>
<td>Introduction to Industrial Technology</td>
<td>0.5</td>
</tr>
</tbody>
</table>

**Electives**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN DR 11</td>
<td>Introduction to Computer Aided Drafting and Design (CADD)</td>
<td>1.0</td>
</tr>
<tr>
<td>IN DR 20a</td>
<td>Computer Aided Drafting and Design (CADD)</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 46</td>
<td>Building and Related Codes</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**INDUSTRIAL TECHNOLOGY ELECTRONICS OPTION**

Minimum units required in discipline: 30

**Required Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELE T 1</td>
<td>Basic Electricity</td>
<td>4.0</td>
</tr>
<tr>
<td>ELE T 2</td>
<td>Passive Circuit Analysis</td>
<td>4.0</td>
</tr>
<tr>
<td>ELE T 9</td>
<td>Semiconductor Circuit Analysis</td>
<td>4.0</td>
</tr>
<tr>
<td>ELE T 12</td>
<td>Digital Logic</td>
<td>4.0</td>
</tr>
<tr>
<td>ELE T 66a</td>
<td>Electronic Communications Circuit</td>
<td>4.0</td>
</tr>
<tr>
<td>ELE T 66b</td>
<td>Electronic Communications Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>APMPT 51</td>
<td>Introduction to Programmable Electronic Controllers (PEC)</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Other Suggested Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN DR 11</td>
<td>Introduction to Computer Aided Drafting and Design (CADD)</td>
<td>1.0</td>
</tr>
<tr>
<td>MATH C</td>
<td>Plane Trigonometry</td>
<td>3.0</td>
</tr>
<tr>
<td>APMPT 50</td>
<td>Introduction to Automated Production and Manufacturing Processes</td>
<td>1.5</td>
</tr>
</tbody>
</table>

**INDUSTRIAL TECHNOLOGY INDUSTRIAL DRAWING OPTION**

Minimum units required in related disciplines: 30

**Required Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN DR 10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>IN DR 11</td>
<td>Introduction to Computer Aided Drafting and Design (CADD)</td>
<td>1.0</td>
</tr>
<tr>
<td>IN DR 20a</td>
<td>Computer Aided Drafting and Design (CADD)</td>
<td>3.0</td>
</tr>
<tr>
<td>IN DR 20b</td>
<td>Computer Aided Drafting and Design (CADD)</td>
<td>3.0</td>
</tr>
<tr>
<td>IN DR 30b</td>
<td>Industrial Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td>IN DR 50</td>
<td>Process Piping Drafting</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH C</td>
<td>Plane Trigonometry</td>
<td>3.0</td>
</tr>
<tr>
<td>IN DR 51</td>
<td>Electrical Design I</td>
<td>2.5</td>
</tr>
<tr>
<td>IN DR 53a</td>
<td>Petroleum Map Drafting</td>
<td>3.0</td>
</tr>
<tr>
<td>APMPT 1ab or 2ab</td>
<td>Introduction to Machine Tool Processes</td>
<td>3.0 or 3.0</td>
</tr>
<tr>
<td>WOOD 2</td>
<td>Beginning Machine Woodworking</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 5</td>
<td>Introduction to Microcomputer Applications</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Electives**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ENGR 24</td>
<td>Engineering Graphics and Descriptive Geometry</td>
<td>2.0</td>
</tr>
<tr>
<td>WELD 1ab</td>
<td>Introduction to the Welding Processes</td>
<td>3.0</td>
</tr>
<tr>
<td>APMPT 50</td>
<td>Introduction to Automated Production and Manufacturing Processes</td>
<td>1.5</td>
</tr>
</tbody>
</table>

(Continued next page)
### Suggested Program

#### First Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>IN DR 10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>IN DR 11</td>
<td>Introduction to Computer Aided Drafting and Design (CADD)</td>
<td>1.0</td>
</tr>
<tr>
<td>MATH D</td>
<td>Intermediate Algebra</td>
<td>4.0</td>
</tr>
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</table>

#### Second Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN DR 30b</td>
<td>Industrial Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td>IN DR 20a</td>
<td>Computer Aided Drafting and Design (CADD)</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH C</td>
<td>Plane Trigonometry</td>
<td>3.0</td>
</tr>
<tr>
<td>IN DR 50</td>
<td>Process Piping Drafting</td>
<td>4.0</td>
</tr>
<tr>
<td>IN DR 53a</td>
<td>Petroleum Map Drafting</td>
<td>3.0</td>
</tr>
</tbody>
</table>

#### Third Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN DR 50</td>
<td>Process Piping Drafting</td>
<td>4.0</td>
</tr>
<tr>
<td>IN DR 53a</td>
<td>Petroleum Map Drafting</td>
<td>3.0</td>
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</tbody>
</table>

#### Fourth Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
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<tbody>
<tr>
<td>CS 5</td>
<td>Introduction to Microcomputer Applications General Education</td>
<td>3.0</td>
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</tbody>
</table>

### INDUSTRIAL TECHNOLOGY WELDING OPTION

Minimum units required in discipline: 30

#### Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 1ab</td>
<td>Introduction to the Welding Processes</td>
<td>3.0</td>
</tr>
<tr>
<td>WELD 53ab</td>
<td>Shielded Metal Arc Welding</td>
<td>3.0</td>
</tr>
<tr>
<td>WELD 55ab</td>
<td>Structural Plate Certification</td>
<td>3.0</td>
</tr>
<tr>
<td>WELD 55cd</td>
<td>ASME Pipe Certification</td>
<td>3.0</td>
</tr>
<tr>
<td>WELD 74ab</td>
<td>TIG and MIG Welding</td>
<td>3.0</td>
</tr>
<tr>
<td>MECT T 54a</td>
<td>Blueprint Reading for Welders and Machinists</td>
<td>3.0</td>
</tr>
<tr>
<td>APMPT 1ab</td>
<td>Introduction to Machine Tool Processes</td>
<td>3.0</td>
</tr>
<tr>
<td>IN DR 10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>IN DR 11</td>
<td>Introduction to Computer Aided Drafting and Design (CADD)</td>
<td>1.0</td>
</tr>
<tr>
<td>APMPT 50</td>
<td>Introduction to Automated Production and Manufacturing Processes</td>
<td>1.5</td>
</tr>
<tr>
<td>EHMT 1</td>
<td>Introduction to Hazardous Materials and Safety Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>EHMT 10a</td>
<td>Hazardous Materials Awareness and Safety</td>
<td>1.0</td>
</tr>
<tr>
<td>IND T 271</td>
<td>Special Problems in Welding</td>
<td>1-3.0</td>
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</table>

### INDUSTRIAL TECHNOLOGY WOODWORKING AND CABINETMAKING OPTION

Minimum units required in discipline: 30

#### Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOOD 1</td>
<td>Beginning Hand Woodworking</td>
<td>3.0</td>
</tr>
<tr>
<td>WOOD 2</td>
<td>Beginning Machine Woodworking</td>
<td>3.0</td>
</tr>
<tr>
<td>WOOD 55</td>
<td>Intermediate Cabinetmaking</td>
<td>3.0</td>
</tr>
<tr>
<td>WOOD 65a</td>
<td>Advanced Cabinetmaking</td>
<td>3.0</td>
</tr>
<tr>
<td>WOOD 65b</td>
<td>Advanced Cabinetmaking</td>
<td>3.0</td>
</tr>
<tr>
<td>FORES 1</td>
<td>Introduction to Forestry</td>
<td>3.0</td>
</tr>
<tr>
<td>IN DR 11</td>
<td>Introduction to Computer Aided Drafting and Design (CADD)</td>
<td>1.0</td>
</tr>
<tr>
<td>IN DR 20a</td>
<td>Computer Aided Drafting and Design (CADD)</td>
<td>3.0</td>
</tr>
<tr>
<td>IN DR 10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>INT D 15a</td>
<td>Elements and Principles of Interior Design</td>
<td>3.0</td>
</tr>
<tr>
<td>CNSTR 1</td>
<td>Introduction to Construction</td>
<td>3.0</td>
</tr>
</tbody>
</table>

#### Other Suggested Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FORES 2</td>
<td>Natural Resources</td>
<td>3.0</td>
</tr>
<tr>
<td>IN DR 30b</td>
<td>Industrial Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td>APMPT 1ab</td>
<td>Introduction to Machine Tool Processes</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### ENGINEERING TECHNOLOGY

Cal Poly Pomona; California State University, Sacramento; Cogswell College; Northrop University

Engineering technologists and engineering technicians are members of a technical team that also includes scientists, engineers and craftsmen. The members of the technical team perform job functions that are complementary and sometimes overlapping. By virtue of their education, training and interests, engineering technologists and engineering technicians are usually differentiated as follows:

An engineering technologist uses applied and basic training in mathematics, science, and engineering classes, engineering methods learned through classes and experience, and developed technical (manipulative) skills in direct support of engineering activities. A Bachelor of Science degree in Engineering Technology is required.

An engineering technician operates in a support role to aid in design, production, manufacturing, operations, and maintenance.
Under professional direction, the engineering technician conducts tests, trouble shooting and analysis, and other similar projects, or carries out functions such as drafting, surveying, designing and technical sales. An Associate in Science degree or a Certificate of Engineering Technology is required.

Bakersfield College offers courses required for two years of engineering technology education. Completion of these courses, called the “engineering technology core” prepares students either for transfer to the colleges and universities offering bachelor's degrees in Engineering Technology, or for completion of an Associate in Science degree in Engineering Technology or certificate with specializations in electronics, industrial drawing, or petroleum. A beginning engineering technology student should have completed high school mathematics through intermediate algebra or MATH D at Bakersfield College, one year of high school drafting or IN DR 10 at Bakersfield College, and be eligible for ENGL 1.

The following courses are required to satisfy the engineering technology core and Associate in Science program:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 48</td>
<td>Engineering Orientation</td>
<td>1.0</td>
</tr>
<tr>
<td>ENGR 45</td>
<td>Properties of Materials</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGR 24 or</td>
<td>Engineering Graphics and Descriptive Geometry</td>
<td>3.0</td>
</tr>
<tr>
<td>IN DR 30b</td>
<td>Industrial Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td>IN DR 11</td>
<td>Introduction to Computer Aided Drafting and Design (CADD)</td>
<td>1.0</td>
</tr>
<tr>
<td>CHEM 2a</td>
<td>Introductory General Chemistry</td>
<td>5.0</td>
</tr>
<tr>
<td>PHYS 2a</td>
<td>General Physics—Mechanics and Heat</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS 2b</td>
<td>General Physics—Sound, Light, Electricity, Magnetism, Modern Physics</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH* 6ab</td>
<td>Analytic Geometry and Calculus</td>
<td>8.0</td>
</tr>
<tr>
<td>CS 11 or</td>
<td>Introduction to Programming with Pascal</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 13</td>
<td>Introduction to Programming with FORTRAN</td>
<td>3.0</td>
</tr>
</tbody>
</table>

The following are highly recommended:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>APMPT 1a</td>
<td>Introduction to Machine Tool Processes</td>
<td>1.5</td>
</tr>
<tr>
<td>WELD 1ab</td>
<td>Introduction to the Welding Processes</td>
<td>3.0</td>
</tr>
</tbody>
</table>

*Students in certificate and/or Associate in Science degree programs may be able to substitute the following courses for the calculus requirement:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH C</td>
<td>Plane Trigonometry</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 1</td>
<td>Mathematical Analysis</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 22</td>
<td>Elementary Probability and Statistics</td>
<td>5.0</td>
</tr>
</tbody>
</table>

In addition, nine or more units from the following list of approved programs and/or subject areas are to be selected. See counselor or advisor for specific courses.

- Accounting
- Electrical Technology
- Auto Mechanics
- Industrial Technology
- Drafting Technology
- Computer Studies
- Construction Crafts Technology
- Machine Tool/Shop
- Welding and Cutting
- Petroleum
- Farm Mechanics
- Mechanical Technology

**APPRENTICESHIP PROGRAMS**

Apprenticeship courses are designed for indentured apprentices under the Shelley-Malone California Apprenticeship Standards Act. The Apprentice Agreement states that the student will supplement on-the-job training with related classroom instruction during each year of apprenticeship.

Apprentice classes meet three to six hours per week and yield two to six units of credit. Joint Apprenticeship Committees administering each program are composed of representation from labor, management, California State Division of Apprenticeship Standards, and Bakersfield College. These committees adopt state approved standards for operation and assure equal opportunity for applicants. Related training in apprenticeable occupations, in addition to those listed below, may be offered as the need arises.

Information for entry into apprenticeship programs may be obtained from the college coordinator of apprenticeship training. Interested persons are encouraged to apply.
for any of these programs and may contact the BC Apprenticeship Coordinator at 395-4408 for further information.

- Bricklayers/Tilesetters
- Carpentry
- Electricians
- Operating Engineers
- Painting and Decorating
- Plumbers and Steamfitters
- Sheet Metal

**ASSOCIATE DEGREE PROGRAM**

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship classes for duration of apprentice period</td>
</tr>
<tr>
<td>(45 units maximum)</td>
</tr>
<tr>
<td>Work Experience (four semesters, maximum of 16 units)</td>
</tr>
<tr>
<td>Related technical subjects as recommended by JAC</td>
</tr>
</tbody>
</table>

In addition, students must comply with the requirements as shown in the catalog under Graduation Requirements. The departmental counselor can assist the student in planning for the A.A. degree.

**CERTIFICATE PROGRAM**

<table>
<thead>
<tr>
<th>Units</th>
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<tbody>
<tr>
<td>Apprenticeship classes for duration of apprentice period</td>
</tr>
<tr>
<td>Work Experience</td>
</tr>
<tr>
<td>Electives (as recommended by JAC) to reach 30 units total (if needed).</td>
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</table>
COURSE DESCRIPTIONS
The following abbreviations are commonly used in the course descriptions: lect lecture; lab laboratory; demo demonstration; Repeat repeatability (see policy on course repetition); CCS Course Classification System. Hours given in parentheses are total hours for the course. Hours lecture, lab, etc., are hours required per week usually. Prerequisites are expressed as minimum requirements. See page 47 for a complete explanation. (CSU) indicates transferable to California State Universities; (UC) indicates Transferable to University of California.

AERONAUTICS
Credit limitations may apply. For specific information see a counselor.

AERO 2 Aviation Fundamentals (3 units)
Principles of aerodynamics and flight, radio communications, aircraft engines and systems, and aircraft performance characteristics including federal aviation regulations and air navigation. Students who satisfactorily complete the course will be eligible to take the Federal Aviation Administration Private Pilot Airplane written test. Recommended: Reading Level 1. Hours: (54) 3 lect. CCS: Occupational Education. Not Transferable: Associate Degree only.

AERO 53 Advanced Flight Technology (3 units)
Federal Aviation regulations, aerodynamics and principles of flight, aircraft performance and airspace procedures. Prepares the student to pass the Federal Aviation Administration Commercial Pilot written test. Prerequisite: AERO 2 or Private Pilot Certificate. Hours: (54) 3 lect. CCS: Occupational Education. Not Transferable: Associate Degree only.

AERO 54 Aviation Meteorology (3 units)
Aviation Meteorology including a basic study of the properties of the atmosphere, circulation patterns, stability, turbulence, icing, thunderstorms, air masses, fronts, restrictions to visibility, reading and interpretation of aviation weather reports, forecasts and charts. Recommended: Reading Level 1. Hours: (54) 3 lect. CCS: Occupational Education.

AIR CONDITIONING AND REFRIGERATION
AC RF 54a–54b Air Conditioning and Refrigeration (3–3 units)
Principles of refrigeration and air conditioning applied to domestic and commercial systems. Repair and maintenance of major systems components and controls. Prerequisites: TEC M 52 or equivalent (may be taken concurrently), ELE T 1 or ELE T 2 or evaluation by instructor. AC RF 54a is prerequisite for AC RF 54b. Hours: (126–126) 1 lect, 6 lab. Repeat: 1. CCS: Occupational Education. Not Transferable: Not degree applicable.

AUTOMATED PRODUCTION AND MANUFACTURING PROCESSESTECHNOLOGY
APMPT 1a Introduction to Machine Tool Processes (1.5 units)
Basic machine tool technology, including the use of precision measuring instruments, drilling machines, and lathes. Recommended: Reading Level 1. Hours: (54) 3 lect. CCS: Occupational Education. Not Transferable: Associate Degree only.
APPLIED SCIENCE AND TECHNOLOGY

APMPT 1b Introduction to Machine Tool Processes (1.5 units)
Basic machine tool technology emphasizing the use of lathes and vertical milling machines. Prerequisite: APMPT 1a or evaluation by instructor. Hours: (54) 1 lect; 2 lab. CCS: Occupational Education. Transferable: CSU and private colleges.

APMPT 50 Introduction to Automated Production and Manufacturing Processes (1.5 units)
Introduction to fundamental concepts of computer integrated manufacturing including computer numerical control machine tools (CNC), computer aided drafting and design (CADD), computer aided manufacturing (CAM), programmable logic control (PLC), servo/non-servo robots, operation of the Bakersfield College CIM cell. Recommended: Reading Level 1. Hours: (36) 3 lect, 1 lab for 9 weeks. Repeat: 1. CCS: Occupational Education. Not Transferable: Associate Degree only.

APMPT 51 Introduction to Programmable Electronic Controllers (PEC) (3 units)
The function and application of programmable electronic controllers (PEC). Theory on the development and dynamics of the programmable electronic controller. Programming with ladder logic using a teach pendant and personal computer to perform tasks with a Mercury robot and training simulator. Recommended: Reading Level 1. Hours: (72) 3 lect, 1 lab. Repeat: 1. CCS: Occupational Education. Not Transferable: Associate Degree only.

APMPT 52 Pneumatics and Electrical Control of Fluid Power (3 units)
Theory and practical application of pneumatics and electrical control of fluid power. Designing ladder logic for pneumatic circuits and interfacing electricity to control pneumatic systems. Recommended: Reading Level 1. Hours: (72) 3 lect, 1 lab. Repeat: 1.

CCS: Occupational Education. Not Transferable: Associate Degree only.

APMPT 55 Introduction to Numerical Control and Fundamentals of Programming (3 units)
Set-up, operation, and programming of a computer numerical control lathe. Recommended: Reading Level 1. Concurrent enrollment in APMPT 1a or evaluation by instructor. Hours: (72) 3 lect, 1 lab by arrangement. Repeat: 1. CCS: Occupational Education. Not Transferable: Associate Degree only.

APMPT 56 Computer Numerical Control Milling Machine (3 units)
Set-up, operation, and programming of a computer numerical control (CNC) 3-axis milling machine including conversational and EIA programming. Recommended: Reading Level 1. Concurrent enrollment in APMPT 1a or evaluation by instructor. Hours: (72) 3 lect, 1 lab by arrangement. Repeat: 1. CCS: Occupational Education. Not Transferable: Associate Degree only.

AUTO
AUTO 1 Basic Auto (4 units)
General mechanical concepts and related physical principles of the automobile and its component parts. Study will stress the automobile as the primary mode of transportation in contemporary American culture with special emphasis on the effects of the automobile and automotive industry on the national economy and the environment. Component function diagnosis and repair of defective components and systems. Recommended: Reading Level 1. Hours: (108) 3 lect, 3 lab. CCS: Occupational Education.

AUTO 59 Automotive Air Conditioning (2 units)
Safety, principles and theory of automotive air conditioning systems, laboratory practice in the installation, service and repair of automotive air conditioning components. Recommended: Reading Level 1. Hours: (54) 2 lect, 1 lab. CCS: Occupational Education. Not Transferable: Associate Degree only.
AUTO 62 Automatic Transmissions (2 units)
Entry-level program providing technical instruction in diagnosis and repairs of automatic transmissions. **Recommended:** Reading Level 1. **Hours:** (54) 1.5 lect, 1.5 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

AUTO 63 Automotive Carburetion and Fuel Injection (2 units)
Techniques and procedures for overhaul and service of fuel and carburetor systems including fuel tank, lines, pump, carburetor and Ford v-8 carburetors. Fuel injection service is also covered. **Recommended:** AUTO 1 or one year automotive experience, Reading Level 1. **Hours:** (54) 1.5 lect, 1.5 lab. **Repeat:** 1. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

AUTO 64a Automotive Electricity (2 units)
Fundamentals of automotive electronics and electrical components including ignitions, batteries, alternators, starters. Laboratory emphasis on testing and servicing of electrical equipment. **Recommended:** Reading Level 1. **Hours:** (54) 1.5 lect, 1.5 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

AUTO 64b Advanced Automotive Electronics (2 units)
Emphasizes trouble-shooting current auto electronic systems, utilizing the digital multimeter, lab oscilloscope and logic probe. Other topics covered are electronic components, analog/digital circuit theory and testing. **Prerequisite:** AUTO 64a or AUTO 66 or two years experience in the automotive service field. **Hours:** (54) 1.5 lect, 1.5 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

AUTO 65 Automotive Emission Control Devices (4 units)
Installation, operation, and repair of automotive pollution control devices including crankcase devices, exhaust emissions, and vapor control systems. Meets the California Air Resources Board (C.A.R.B.) pre-examination requirements.

AUTO 66 Automotive Computer Controls (4 units)
Operation and diagnosis of domestic and import computerized engine control systems. Includes electronic devices, control modules, sensors, and computerized fuel systems. Laboratory includes electronic diagnosis, computer code analysis, and fuel system diagnosis. **Recommended:** AUTO 1 or one year automotive experience. **Hours:** (108) 3 lect, 3 lab. **Repeat:** 1. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

AUTO 73 Wheel Alignment (2 units)
Principles of front end and four wheel alignment including repair, replacement and adjustment of suspension components. Instruction and use of computerized 4-wheel alignment machine. **Recommended:** Reading Level 1. **Hours:** (54) 1.5 lect, 1.5 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

AUTO 74 Automotive Disc and Drum Brake Service (2 units)
Principles of operation and diagnosis, repair, and replacement of automotive brake system components. **Recommended:** Reading Level 1. **Hours:** (54) 1.5 lect, 1.5 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

AUTO 75a Introduction to Engine Overhaul (3 units)
Theory of internal combustion, piston-type engine design and maintenance. Engine disassembly for familiarization purposes. **Prerequisite:** AUTO 1 or evaluation by instructor. **Hours:** (108) 2 lect, 4 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

AUTO 75b Engine Repair Techniques (3 units)
Theory of internal combustion, piston-type engine repair techniques. Practice in overhaul
procedures, mechanical problem diagnosis and measuring techniques. Prerequisite: AUTO 75a. Hours: (108) 2 lect, 4 lab. CCS: Occupational Education. Not Transferable: Associate Degree only.

AUTO 75c Advanced Engine Overhaul (3 units)
Application of engine overhaul theory and procedures, component tolerancing, reassembly and break-in procedures. Prerequisite: AUTO 75b. Hours: (108) 2 lect, 4 lab. CCS: Occupational Education. Not Transferable: Associate Degree only.

AUTO 75d Advanced Engine Machining (3 units)
Advanced engine design, theory of machining techniques and engine machining procedures. Practice in automotive machining. Prerequisite: AUTO 75c. Hours: (108) 2 lect, 4 lab. CCS: Occupational Education. Not Transferable: Associate Degree only.

AUTO 102a Automotive Engine Overhaul (9 units)
Theory of internal combustion, piston-type engine design and maintenance. Practice in engine overhaul procedures and mechanical problem diagnosis. Recommended: Reading Level 1 or evaluation by instructor. Hours: (270) 6 lect, 9 lab. Repeat: 1. CCS: Occupational Education. Not Transferable: Associate Degree only.

AUTO 102b Automotive Engines Machining (9 units)
Advanced engine design, theory of machining techniques and engine machining procedures. Practice in automotive machining operations. Prerequisite: AUTO 102a. Hours: (270) 6 lect, 9 lab. Repeat: 1. CCS: Occupational Education. Not Transferable: Associate Degree only.

AUTO 103 Automotive and Light Truck Brake Systems (4 units)
A comprehensive course in automotive and light truck brake systems, designed to give the student the skills and technical knowledge to diagnose, repair or replace all the brake components on late model vehicles. Recommended: Reading Level 1. Hours: (108) 3 lect, 3 lab. CCS: Occupational Education. Not Transferable: Associate Degree only.

AUTO 108 Automotive Suspension, Steering and Alignment (6 units)
Principles of design and operation, techniques for repair and replacement of 4-wheel suspension components. Alignment procedures using modern computerized 4-wheel alignment equipment. Recommended: Reading Level 1. Hours: (216) 4 lect, 8 lab. CCS: Occupational Education. Not Transferable: Associate Degree only.

AUTO 112a Automatic Transmissions Overhaul and Service (8 units)
Automatic transmissions and transaxles, computer controls, two-, three-, and four-speed transmissions, overdrive, and all related components. Successful completion should enable the student to pass the National Institute of Service Excellence test. Recommended: Reading Level 1. Hours: (216) 6 lect, 6 lab. CCS: Occupational Education. Not Transferable: Associate Degree only.

AUTO 112b Standard Transmissions and Power Train Service (4 units)
Standard transmissions and transaxles, clutches, "U" joints, differentials and all related components. Successful completion should enable the student to pass the National Institute of Service Excellence test. Recommended: Reading Level 1. Hours: (108) 3 lect, 3 lab. CCS: Occupational Education. Not Transferable: Associate Degree only.

AUTO 114 Automotive Tune-Up: Electrical and Ignitions (10 units)
Fundamentals of automotive electrical/electronic component repair. Includes electrical theory, diagnosis and repair of battery, starting, charging and ignition systems including computer controlled systems. Laboratory emphasis on computer diagnostic equipment. Prerequisite: AUTO 1 with minimum grade of "C" or evaluation by instructor. Recommended: Reading Level 1. Hours: (270) 8 lect, 7 lab. Repeat: 1. CCS: Occupational Education. Not Transferable: Associate Degree only.
AUTO 115 Automotive Tune-Up: Fuel and Emissions (10 units)
Theory, operation, and servicing of automotive fuel systems, computer controlled fuel systems, and emission controls. Advanced engine performance will also be included along with one half of the California Air Resources Board State Smog Program. Laboratory includes using diagnostic equipment for computer-controlled automobile servicing. Prerequisites: AUTO 1 with a grade of "C" or evaluation by instructor. Recommended: Reading Level 1. Hours: (270) 8 lect, 7 lab. Repeat: 1. CCS: Occupational Education. Not Transferable: Associate Degree only.

AUTO 290 Automotive Maintenance and Repair (12 units)
Engine components, chassis, brake, air conditioning service and basic engine tune-up. Prerequisites: Concurrent enrollment in IND T 90 and Bakersfield College Employer's Training Resource Program (ETR). Hours: (450) 5 lect, 20 lab. Open entry/open exit. Repeat: 1, or until a limit of 12 units is reached. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly AUTO 90.

CONSTRUCTION TECHNOLOGY
Credit limitations may apply. For specific information see a counselor.

CNSTR 1 Introduction to Construction (3 units)
Basic concepts of the construction industry. Overview of careers in construction, planning and layout, foundations and concrete, and light frame construction. Recommended: Reading Level 1 or evaluation by instructor. Hours: (54) 3 lect. Field trips required. CCS: Occupational Education. Transferable: CSU and private colleges.

CNSTR 2 Estimating and Scheduling (3 units)
Techniques in estimating and scheduling for the building industry. Plan reading and the extraction of the information necessary to calculate quantities and costs are covered. The preparation of a cost breakdown for the use of a financial institution and a production schedule for the projects is completed in the class. The use of computer programs to calculate the cost and keep track of the scheduling is explored and practiced. Practice and theory are pursued. Prerequisite: CNSTR 1 or evaluation by instructor. Hours: (54) 3 lect. CCS: Occupational Education. Transferable: CSU and private colleges.

CNSTR 3a Plumbing for Residential Construction (1.5 units)
The study and discussion of local building codes, along with developing the basic skills of beginning students in the knowledge of plumbing materials, tools and equipment together with the basic technical knowledge required to enter the plumbing industry. Emphasis is on how to make all the common joints, and install the systems common to the plumbing trade as well as how to install finished fixtures and appliances. Prerequisites: CNSTR 1, CNSTR 2, or evaluation by instructor. Hours: (27) 3 lect for 9 weeks. Field trips required. CCS: Occupational Education. Not Transferable: Associate Degree only.

CNSTR 3b Electrical for Residential Construction (1.5 units)
The study and discussion of local building codes as related to residential electrical wiring, along with developing the basic skills of beginning students in the knowledge of electrical wiring materials, tools, and equipment together with the basic technical knowledge required to enter the electrical wiring industry. The student will learn the basic theory of electricity, and how to install the system most commonly used in the residential electrical trade and how to install finish electrical fixtures and appliances. Prerequisites: CNSTR 1, CNSTR 2 or evaluation by instructor. Hours: (27) 3 lect for 9 weeks. Field trips required. CCS: Occupational Education. Not Transferable: Associate Degree only.

CNSTR 4a Cabinetmaking and Millwork (4 units)
A highly structured, intermediate level course in cabinetmaking and millwork designed to prepare students for employment in the
cabinet/construction industry. Special attention to state-of-the-art techniques. **Prerequisites:** WOOD 2 or equivalent or evaluation by instructor. **Recommended:** Prior experience. **Hours:** (144) 3 lect, 5 lab. Field trips required. **CCS:** Occupational Education. Not Transferable: Associate Degree only.

**CNSTR 4b Cabinetmaking and Millwork (4 units)**
An advanced course in cabinetmaking, utilizing machine and hand techniques necessary for top-end construction. Residential and non-residential type cabinets and the economical use of solid lumber; architectural millwork such as frame and panel wainscot, built-in furniture, desks, bars, doors, and windows; commercial applications such as store fixtures, counters, and reception desks; computer-aided cabinet design. **Prerequisites:** CNSTR 4a or evaluation by instructor. **Hours:** (144) 3 lect, 5 lab. Field trips required. **Repeat:** 1. **CCS:** Occupational Education. Not Transferable: Associate Degree only.

**CNSTR 55a—55b Residential Construction (5-5 units)**
The use of different trades in the actual construction of various projects. The theory will be discussed and then applied to the project. All trades necessary to the completion of a residential structure will be experienced. The trades involved will include, but not be limited to, concrete, framing, plumbing, electrical, interior and exterior finish, insulation, and roofing. Alternative materials and methods will be used to complete the projects. The student can enroll mid-year and take the semesters out of sequence. **Prerequisites:** CNSTR 1, CNSTR 2. **Hours:** (180-180) 3 lect, 7 lab. Field trips required. **Repeat:** 2. **CCS:** Occupational Education. Not Transferable: Associate Degree only.

**ELECTRICAL TECHNOLOGY**
Credit limitations may apply. For specific information see a counselor.

**ELE T 1 Basic Electricity (4 units)**
Introduction to electricity including electrostatics, direct current circuits, resistive alternating current circuits, electrical circuit calculations, electrical measurements, and use of test equipment. **Recommended:** Reading Level 1. **Hours:** (108) 3 lect, 3 lab. **CCS:** Occupational Education. Transferable: CSU and private colleges.

**ELE T 2 Passive Circuit Analysis (4 units)**
Direct and alternating current circuit analysis using network theorems in resistive and reactive circuits. Includes study of resonance, power factor correction, and passive filters. **Prerequisite:** ELE T 1 with a grade of "C" or equivalent background in electricity/electronics. **Hours:** (108) 3 lect, 3 lab. **CCS:** Occupational Education. Transferable: "CSU and private colleges.

**ELE T 9 Semiconductor Circuit Analysis (4 units)**
Characteristics and applications of semiconductor electronic devices including operational amplifiers and other linear integrated circuits in analog circuits including power supplies, amplifiers, oscillators, and active filters. **Prerequisite:** ELE T 2 with a grade of "C." **Recommended:** ELE T 1. **Hours:** (108) 3 lect, 3 lab. **Repeat:** 2. **CCS:** Occupational Education. Transferable: CSU and private colleges.

**ELE T 12 Digital Logic (4 units)**
Number systems, boolean logic, and fundamentals of digital devices; basic applications of logic devices in computers and control systems. Course includes an introduction to microprocessors and their applications. **Hours:** (108) 3 lect, 3 lab. **Repeat:** 2. **CCS:** Occupational Education. Transferable: CSU and private colleges.

**ELE T 56 Introduction to Industrial Measurement and Control (1.5 units)**
Basic principles of process measurement and control. **Recommended:** Reading Level 1. **Hours:** (27) 3 lect for 9 weeks. **CCS:** Occupational Education. Not Transferable: Associate Degree only.

**ELE T 66a Electronic Communication Circuits (4 units)**
Basic principles of circuits used in electronic communications equipment, including oscillators, AF amplifiers, RF amplifiers, transmitters and modulation. **Prerequisite:**
ELE T 9 with a grade of “C.” **Hours:** (108) 3 lect, 3 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**ELE T 66b Electronic Communication Systems** (4 units)
Basic principles of electronic systems used in modern communication: AM receivers, FM receivers, television, antennas, broadcast stations and microwave. **Prerequisite:** ELE T 66a. **Hours:** (108) 3 lect, 3 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**ENVIRONMENTAL TECHNOLOGY**

**EHMT 1 Introduction to Hazardous Materials and Safety Technology** (3 units)
An introduction to the overall scope of Hazardous Materials Technology. Emphasizes legal definitions, terminology, and regulatory framework. Included is historical background, career opportunities, governmental processes, and an overview of major hazardous materials handling and management procedures and requirements. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect/disc. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**EHMT 10 Safety and Emergency Response** (1–1.5 units)
Modules designed to meet OSHA health and safety training requirements for hazardous materials and waste workers. EHMT 10a meets the 24-hour Hazardous Waste Worker Certification requirements. Three modules combined meet the 40-hour “hands on” certification requirements. Module “a” should be taken prior to “b” and “c.” **Recommended:** EHMT/CHEM 49 or CHEM 11, EHMT 30. **Hours:** (24–54) 1.5 to 3 lect/lab. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**EHMT 10a Hazardous Materials Awareness and Safety** (1 unit)
**Repeat:** 1.

**EHMT 10b Spill Control and Emergency Response** (1.5 units)
**Repeat:** 1.

**EHMT 10c Decision Making in Emergencies** (1.5 units)
**Repeat:** 1.

**EHMT 15 Hazardous Materials Management Applications** (1–1.5 units)
Modules designed to cover the requirements and applications of federal, state, and local laws and regulations relating to hazardous materials management. **Recommended:** EHMT/CHEM 49 or CHEM 11, EHMT 1, EHMT 30. **Hours:** (18-45) 3 lect or 3 lect/lab. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**EHMT 15a Right to Know Laws** (1.5 units)
**Repeat:** 1.

**EHMT 15b Transportation and Storage of Hazardous Materials** (1.5 units)
**Repeat:** 1.

**EHMT 15c Air Quality Issues** (1 unit)
**Repeat:** 1.

**EHMT 20 Hazardous Waste Generation, Reduction and Treatment** (3 units)
The use of chemicals and materials in industrial processes and hazardous waste generation/reduction. Waste streams of seven selected industry categories will be covered. Course will examine applicable regulations and material balance concept of inventory. **Prerequisites:** MATH A and CHEM 2a or CHEM 11 or evaluation by instructor. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**EHMT 30 Health Effects of Hazardous Materials** (3 units)
Acute and chronic health effects produced by exposure to chemical, physical, and biological agents. Emphasis is on hazardous materials commonly associated with industrial operations, waste disposal, and remediation sites. Topics include routes of entry, toxic effects, risk evaluation, permissible exposure limits, medical surveillance, control methods for reducing exposure, and understanding an MSDS. **Prerequisite:** HL SC 1 or equivalent. **Hours:** (54) 3 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.
EHMT 40 Hazardous Waste Management Applications (1-1.5 units)
Modules designed to cover the requirements and applications of federal, state, and local laws and regulations relating to hazardous waste management. Recommended: EHMT/Chem 49 or CHEM 11, EHMT 1. Hours: (18-45) 3 lect or 3 lect/lab. CCS: Occupational Education. Transferable: CSU and private colleges.

EHMT 40a Generator Requirements (1.5 units)
Repeat: 1.

EHMT 40b Sampling and Analysis (1.5 units)
Repeat: 1.

EHMT 40c Special Topics in Hazardous Waste Management (1 unit)
Repeat: 1.

EHMT 49 Applied Chemistry (4 units)
The systematic study of the principles of applied inorganic, organic, and biochemistry using a qualitative and quantitative approach. Topics include physical principles of chemistry; inorganic compounds and reactions; a survey of organic chemistry (classification, compounds, reactions, nomenclature); biochemistry (classification, composition, reactions in living organisms). The course emphasizes technical aspects of chemistry relating to everyday processes and industrial applications. Recommended: MATH A or equivalent, Reading Level 1. Hours: (108) 3 lect, 3 lab. Field trips required. CCS: Occupational Education. Transferable: CSU and private colleges. Note: Not open to students with credit in CHEM 49.

MATHEMATICS FOR ELECTRONICS
TEC M 52 Introduction to Technical Mathematics (3 units)
Fundamental concepts and mathematical processes, first degree equations, special products and factoring, fractions and fractional equations, ratios, proportions, radicals, exponents, graphs, simultaneous linear equations, quadratic equations. Hours: (90) 5 lect. CCS: Occupational Education. Not Transferable: Associate Degree only.

INDUSTRIAL DRAWING
Credit limitations may apply. For specific information see a counselor.

IN DR 1 Introduction to Drafting (0.5 unit)
Designed to assist students in understanding college requirements and to help them in making educational plans. It also provides information pertaining to drafting as both a career choice and the options open for transfer to a four-year school. Satisfies the 0.5 unit educational planning requirement for graduation from Bakersfield College. Recommended: Reading Level 1. Hours: (9) 1 lect for 9 weeks. CCS: Occupational Education. Transferable: CSU and private colleges.

IN DR 10 Introduction to Industrial Drawing and Graphics (1 unit)
Introductory course dealing with conventional drafting methods to obtain graphic solutions, design, modifications and delineations for industrial, architectural, and interior drawings. Emphasizes basic drafting skills. Recommended: Reading Level 1. Hours: (36) 2 lect, 2 lab for 9 weeks. CCS: Occupational Education. Transferable: CSU and private colleges. Note: Not open to students with credit in ARCH 10.

IN DR 11 Introduction to Computer Aided Drafting and Design (CADD) (1 unit)
Introductory course utilizing a computer aided drafting and design (CADD) system to obtain graphic solutions, design refinements, modifications, and delineations for industrial, architectural, and engineering drawings. Emphasizes building skills necessary to function as a CADD operator in industry. Recommended: Reading Level 1. Hours: (36) 2 lect, 2 lab for 9 weeks. CCS: Occupational Education. Transferable: CSU and private colleges.

IN DR 16 Introduction to 3-D Animation (1 unit)
Introductory course utilizing 3-D animation software and hardware to obtain photorealistic graphics for use in industrial and broadcast applications. Emphasizes building basic skills necessary to do these applications
on an entry level. Recommended: IN DR 11. Hours: (36) 2 lect, 2 lab for 9 weeks. CCS: Occupational Education. Transferable: CSU and private colleges.

IN DR 20a Computer Aided Drafting and Design (CADD) (3 units)
An intensive study utilizing a computer aided drafting and design (CADD) system to obtain graphic solutions, design refinements, modifications, and delineations of industrial, architectural, and engineering drawings. Emphasizes basic high technology skills which are necessary to function as an entry-level CADD operator. Prerequisites: IN DR 11, IN DR 10 and concurrent enrollment in IN DR 30b or ARCH 11 or ENGR 24 or equivalent or experience to be evaluated by the instructor. Recommended: Reading Level 1. Hours: (108) 3 lect, 3 lab. CCS: Occupational Education. Transferable: CSU and private colleges.

IN DR 20b Computer Aided Drafting and Design (CADD) (3 units)
Continuation of the sequence to utilize the CADD system to obtain graphic solutions, design refinements, modifications, and delineations in working with industrial, architectural, and engineering drawings. Emphasizes basic high technology skills which are necessary to function as an entry-level CADD operator. Prerequisite: IN DR 20a. Hours: (108) 2 lect, 4 lab. Field trips required. CCS: Occupational Education. Transferable: CSU and private colleges.

IN DR 30b Industrial Drawing (3 units)
Fundamentals, techniques, procedures, and practices of industrial drafting and design based upon the American National Standard Drafting Manual of the American National Standards Institute, which includes lettering, basic theory of orthographic projection, freehand detail sketching, use of drafting instruments and equipment, solving multi-view problems, correct line use, sectioning, auxiliary views, pictorial sketching and drawing, revolutions, dimensioning practices, shop processes, fasteners, springs and threads, inking, graphs, and general drawing presentation. Prerequisite: IN DR 10 with a minimum grade of "D" or two years of high school drafting with grades of "B." Recommended: Reading Level 1. Hours: (108) 2 lect, 4 lab. CCS: Occupational Education. Transferable: CSU and private colleges.

IN DR 50 Process Piping Drafting (4 units)
Develops knowledge of essential techniques of process piping drafting. Serves as a phase of training to become piping draftsmen. Includes piping plans, isometrics, orthographic, and process flow diagrams. Prerequisite: IN DR 10. Hours: (108) 3 lect, 3 lab. CCS: Occupational Education. Not Transferable: Associate Degree only.

IN DR 51 Electrical Design I (2.5 units)
Introduces the student to the drawing and drafting techniques used in the preparation of electrical construction drawings in industry today. Emphasizes concepts of design to the student utilizing various national, state, and local rules and codes (e.g. 1987 National Electrical Code). Prerequisites: IN DR 10 or two years of high school drafting with a grade of "B" or ELE T 2. Recommended: Reading Level 1, IN DR 11. Hours: (72) 2 lect, 2 lab. Field trips required. CCS: Occupational Education. Not Transferable: Associate Degree only.

IN DR 53a Petroleum Map Drafting (3 units)
Develops skills to enable the beginning draftsman to become familiar with different types of map drafting. Includes base maps, contour maps, isopach maps, parcel maps, air maps, cross-sections, and introduction to electric logs. Prerequisite: IN DR 10 or equivalent. Hours: (54) 3 lect. Field trip required. CCS: Occupational Education. Not Transferable: Associate Degree only.

IN DR 55 Geometric Dimensioning and Tolerancing (1 unit)
An introductory course in the application and interpretation of geometric dimensioning and tolerancing concepts according to the latest revision of ANSI Y 14.5. This course is designed for persons working or preparing to work in the field of drafting, engineering, manufacturing, quality control and inspection. Recommended: Reading Level 1. Hours: (18) 1 lect. CCS: Occupational Education. Not Transferable: Associate Degree only.
INDUSTRIAL TECHNOLOGY
Credit limitations may apply. For specific information see a counselor.

IND T 10 Introduction to Industrial Technology (0.5 unit)
Orientation to Bakersfield College and post-secondary education in California. Survey of various fields of industrial technology, career opportunities and requirements, development of a personal education plan. Satisfies the 0.5 unit educational planning requirement for graduation from Bakersfield College. Recommended: Reading Level 1. Hours: (9) 1 lect/disc for 9 weeks. CCS: Occupational Education. Transferable: CSU and private colleges.

IND T 50 Managing Quality Organizations (3 units)
Incorporates the systematic approach to constant improvement throughout an organization. Introduces themes, teams, tools/techniques of continuous quality improvement. Emphasizes the quality system approach to: customer focus; and employee involvement in service, retail and manufacturing situations. Hours: (54) 3 lect. CCS: Occupational Education. Not Transferable: Associate Degree only. Recommended: Reading Level 1. Not open to students with credit in BUSMG 50.

MECHANICAL TECHNOLOGY

MEC T 54a Blueprint Reading for Welders and Machinists (3 units)
Principles of blueprint reading as applied to the welding and machine trades. Emphasis will be placed on the ability to visualize and interpret working drawings. Welding symbols and basic shop math are also included. Recommended: Reading Level 1 or evaluation by instructor. Hours: (54) 3 lect. CCS: Occupational Education. Not Transferable: Associate Degree only.

MEC T 54b Template Development and Layout for the Welder (3 units)
Technical skills and critical thinking in layout techniques including layout situations, mathematical and pipe fitting terminology used in the industry. Prerequisites: MEC T 54a with a grade of "C," or equivalent experience, or evaluation by instructor. Recommended: Reading Level 1. Hours: (54) 3 lect. CCS: Occupational Education. Not Transferable: Associate Degree only.

MECHANIZED AGRICULTURE

MC AG 56ab Agriculture Power Diesel Technology (2-2 units)
Diesel technology used in agriculture and transportation industries, covers principles of operation, diagnosis and service. Recommended: Reading Level 1. Hours: (36-36) 2 lect, 2 lab for 9 weeks. CCS: Occupational Education. Not Transferable: Not degree applicable. Note: Formerly MC AG 80.

MC AG 280 Tractor Mechanics-Technician Training (12 units)
Repair service on agriculture equipment. Emphasizes maintenance, repair, troubleshooting, design, safety, tool usage, equipment operation, machine tool usage, welding and air conditioning. Prerequisites: Concurrent enrollment in MC AG 290, and Bakersfield College Employer’s Training Resource Program (ETR). Hours: (600) 6 lect, 19 lab for 24 weeks. Open entry/open exit. Field trips required. CCS: Occupational Education. Not Transferable: Not degree applicable. Note: Formerly MC AG 80.
MC AG 290 Mechanized Agriculture Employment Skills (6 units)
Course provides the student with skills in the following areas: communication, computation, human relation and job search. All related to actual work situations in agricultural mechanics. Prerequisites: Concurrent enrollment in MC AG 280 and enrolled in the Bakersfield College Employer’s Training Resource Program. Hours: (192) 8 lect for 24 weeks. Open entry/open exit. CCS: Occupational Education. Not Transferable: Not degree applicable.

WATER TECHNOLOGY
WTR T 51 Basic Water Treatment (3 units)
Prepares the entrance level student for Water Facility Operator Certification, Grades 1 and 2 and/or to inform interested public in the methodology used for the purification of domestic drinking water. Hours: (54) 3 lect. Field trips required. CCS: Occupational Education. Not Transferable: Not degree applicable.

WTR T 52 Basic Water Distribution (3 units)
Prepares the student to obtain Grade 1 certification from the American Water Works Association and/or to inform interested parties in the methods involved in accepted distribution systems and operations. Hours: (54) 3 lect. Field trips required. CCS: Occupational Education. Not Transferable: Not degree applicable.

WTR T 53 Water and Wastewater Analysis (4 units)
Prepares the student for certification as a Water Quality Analyst, Grade 1. Lectures cover environmental influences, composition of natural water, analysis, interpretation of results and application to treatment problems. Laboratory experiments include those areas which are on the Grade 1 exam, and which are usually the controlling operating tests for water and wastewater treatment plants. Recommended: High School CHEM or job related experience, Reading Level 1. Hours: (108) 3 lect, 3 lab. CCS: Occupational Education. Not Transferable: Not degree applicable.

WELDING
WELD 1a-1b Introduction to the Welding Processes (1.5-1.5 units)
Properties and characteristics of metals and a survey of metal welding processes. Safety, theory, and practical experience in oxy-acetylene welding and cutting, shielded metal arc, PAC, MIG, TIG, submerged ARC, resistance welding and joint design, codes and weld testing. Recommended: Reading Level 1 or evaluation by instructor. Hours: (54-54) 1 lect, 2 lab. CCS: Occupational Education. Transferable: CSU and private colleges.

WELD 53a-53b Shielded Metal Arc Welding (1.5-1.5 units)
Basic arc welding theory and manipulative skills related to the shielded metal arc welding process, including welding in all positions with various electrodes. Recommended: Reading Level 1 or evaluation by instructor. Hours: (54-54) 1 lect, 2 lab. CCS: Occupational Education. Not Transferable: Associate Degree only.

WELD 55a-55b Structural Plate Certification (1.5-1.5 units)
Safety, introduction to welding codes, welding discontinuities and practical welding. Experience on plate with shielded metal arc welding, based on the American Welding Society DI.I structural code. Prerequisite: WELD 53b. Hours: (54-54) 1 lect, 2 lab. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly WELD 53c-53d.

WELD 55c-55d ASME Pipe Certification (1.5-1.5 units)
Weld, safety, welding pipe in the 1G, 2G and 5G positions. An examination of the ASME Welding Code will also be covered. Prerequisites: WELD 55a with a grade of “C” or equivalent experience or evaluation by instructor. Recommended: Reading Level 1. Hours: (54-54) 1 lect, 2 lab. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly WELD 65a-65b.
WELD 55e-55f API and Related Certification Testing (1.5-1.5 units)
Welding safety, and welding pipe in the 6G position, pipe layout and the API 1104 pipe welding code will also be covered. Prerequisites: WELD 55c-55d with a grade of "C" or equivalent experience or evaluation by instructor. Recommended: Reading Level 1. Hours: (54-54) 1 lect, 2 lab. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly WELD 65c-65d.

WELD 74a-74b TIG and MIG Welding (1.5-1.5 units)
Theory and application of TIG, MIG, Fluxcore, and Submerged welding processes. Emphasizes safe and proper operation of these welding processes while welding on mild steel, aluminum, and stainless steel. Prerequisites: WELD 1a or WELD 53a or equivalent experience or evaluation by instructor. Recommended: Reading Level 1. Hours: (54-54) 1 lect, 2 lab. CCS: Occupational Education. Not Transferable: Associate Degree only.

WELD 79 Welding Inspection (2 units)
Theory and application of various welding codes and standards applicable to inspection process. Practical inspection of welds, involving knowledge of the various codes, standards, and specifications, welding procedures and weld performance qualification requirements, acceptance standards, welding processes, destructive and nondestructive test methods and welding metallurgy. Prerequisites: WELD 1a or WELD 53a with a grade of "C" or equivalent experience or evaluation by instructor. Recommended: Reading Level 1. Hours: (36) 2 lect. CCS: Occupational Education. Not Transferable: Associate Degree only.

WELD 290 General Welding (12 units)
Enter-level welding skill development in modern welding and cutting processes, theory and practice. Prerequisites: Concurrent enrollment in IND T 290 and Bakersfield College Employer's Training Resource Program (ETR). Hours: (450) 6 lect, 19 lab. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly WELD 90.

WOOD

WOOD 1 Beginning Hand Woodworking (3 units)
Basic woodworking processes and materials, use and care of hand tools, limited machine use, wood finishing, lathe turning, bent lamination, and hand carving. Recommended: Reading Level 1. Hours: (108) 2 lect, 4 lab. CCS: Occupational Education. Transferable: CSU and private colleges.

WOOD 2 Beginning Machine Woodworking (3 units)
Skill development on the use and care of portable and stationary woodworking machines. The use of basic wood joint techniques, surface preparation, gluing, clamping and assembly is emphasized. Recommended: Reading Level 1. Hours: (108) 2 lect, 4 lab. CCS: Occupational Education. Transferable: CSU and private colleges.

WOOD 55 Intermediate Cabinetmaking (3 units)
Machine woodworking for students with prior basic knowledge of woodworking machines and basic construction and assembly techniques. Emphasizes cabinet construction for industry, styles and designs, materials and handling, and basic estimating skills. Prerequisite: WOOD 2 or evaluation by instructor. Recommended: Reading Level 1. Hours: (108) 2 lect, 4 lab. Field trips required. CCS: Occupational Education. Not Transferable: Associate Degree only.

WOOD 65a Advanced Cabinetmaking (3 units)
Machine woodworking emphasizing new designs including modular as well as European cabinet construction, new materials and processes, Kortron, malamine, high density particle board, as well as others. Advanced bidding techniques are discussed. Prerequisite: WOOD 55 or evaluation by instructor. Hours: (108) 2 lect, 4 lab. CCS: Occupational Education. Not Transferable: Associate Degree only.
WOOD 65b Advanced Cabinetmaking
(3 units)
Machine and hand techniques necessary for
top-end construction emphasized. Non-
residential type cabinets studied. Economical
use of solid lumbers will be shown. Architec-
ture millwork such as frame and panel
wainscoat, bookcases, desks, bars, doors,
skylights and windows demonstrated. Also
included are commercial applications such as
store fixtures, counters and reception desks.
Prerequisite: WOOD 65a or evaluation by
instructor. Hours: (108) 2 lect, 4 lab. Field trips
required. CCS: Occupational Education. Not
Transferable: Associate Degree only.
Art
CERTIFICATE OF ACHIEVEMENT
PHOTOGRAPHY CERTIFICATE
This basic course of study in photography and the arts is designed to give the student a perspective on the artistic and professional aspects of photography. The one-year program is dependent upon scheduling of classes. Students desiring further training may continue toward an Associate Degree or transfer to a four-year institution.

Minimum units required in discipline: 24

Required Courses: 21

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<tr>
<th>Course Number</th>
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<th>Units</th>
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<tr>
<td>ART 2ab or</td>
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<td>ART 2ef</td>
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<td>ART 3ab</td>
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<td>ART 3ef</td>
<td>Fundamentals of Color I</td>
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<td>ART 17ab</td>
<td>Elementary Photography</td>
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<td>ART 17cd</td>
<td>Intermediate Photography</td>
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<td>ART 17ef</td>
<td>Color Photography</td>
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<td>ART 17gh</td>
<td>Advanced Photography</td>
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Recommended Courses

Minimum Requirement: 3

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<td>Art Appreciation</td>
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<td>ART 30a or</td>
<td>Ancient Mediterranean Art</td>
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<td>ART 30c or</td>
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<tr>
<td>ART 30d</td>
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ASSOCIATE IN ARTS DEGREE PROGRAM
Students must comply with the requirements as shown in the catalog under Graduation Requirements. Counselors/advisors will assist the student in planning for an Associate Degree.

ART
Minimum units required in discipline: 18

Required Courses: 9

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Electives (Minimum of 9 units concentrated or distributed)
ART 2, 3, 4 and 5 Painting and Drawing Series
ART 7 Ceramic Series
ART 8 Jewelry Series
ART 9 Glass Design Series
ART 11, 12 Sculpture Series
ART 14, 15 Graphic Series
ART 17, 18 Photography Series
ART 30, 33 Art History Series
COURSE DESCRIPTIONS
The following abbreviations are commonly used in the course descriptions: lect lecture; lab laboratory; demo demonstration; Repeat repeatability (see policy on course repetition); CCS Course Classification System. Hours given in parentheses are total hours for the course. Hours lecture, lab, etc., are hours required per week usually. Prerequisites are expressed as minimum requirements. See page 47 for a complete explanation. (CSU) indicates transferable to California State Universities; (UC) indicates Transferable to University of California.

ART
Credit limitations may apply. For specific information see a counselor.

ART 1 Art Appreciation (3 units)
Exploration of the creative process emphasizing art as a visual form of communication for both majors and non-majors. Useful criteria for evaluation and enjoyment of art through the development of a visual vocabulary and knowledge of art processes, as well as art in a historical context. Recommended: Reading Level 1. Hours: (54) 3 lect. Field trips required. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN ART 8)

ART 2ab Basic Drawing (3 units)
2a–2b (1.5–1.5) equivalent to 2ab. A foundation in seeing through drawing. Emphasizes major theories and techniques in understanding composition and form. Systematic examination of graphic elements, their formal properties, relations and functions in the organization of graphic structures. Development of drawing as a medium of expression. Prerequisite: 2b: ART 2a with a grade of “C.” Recommended: 2a: Reading Level 1. Hours: (2ab–108) 6 lect/studio. Field trips required. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN ART 8)

ART 2cd Advanced Drawing (3 units)
2c–2d (1.5–1.5) equivalent to 2cd. A further study of realistic, abstract and non-objective drawing as related to form perception. Advanced projects in basic drawing techniques.

ART 2ef Figure Drawing (3 units)
2e–2f (1.5–1.5) equivalent to 2ef. A beginning course in drawing design to give the student special focus on the human figure as subject. Emphasizes dynamic considerations of drawing as observed in the human form through a study of its structure, anatomy, design, and expression. Prerequisite: 2f: ART 2e with a grade of “C.” Recommended: 2e: Reading Level 1. Hours: (2ef–108) 6 lect/studio. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN ART 24)

ART 2gh Advanced Figure Drawing (3 units)
2g–2h (1.5–1.5) equivalent to 2gh. Advanced study in exploration of the expressive character of the human figure. Emphasizes manipulation of the visual elements of drawing to communicate statements of emotion and convey character and mood through the drawing’s abstract and structural condition. Prerequisite: ART 2ef with a grade of “C.” Hours: (2gh–108) 6 lect/studio. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN ART 24)

ART 2ij Advanced Projects in Drawing (3 units)
2i–2j (1.5–1.5) equivalent to 2ij. A continued study of drawing involving use of wet as well as dry media and color as well as black and white. The philosophical implications of drawing: purely aesthetic concerns will be emphasized and deeper analysis of composition and style in that context will be the main objective of the course. Prerequisites: 2i: ART 2cd or 2gh with a grade of “C.” 2j: ART 2i with a grade of “C.” Hours: (2ij–108) 6 lect/studio. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN ART 8)

ART 3ab Basic Design (3 units)
3a–3b (1.5–1.5) equivalent to 3ab. A course in the basic principles of design. Problems of the visual field: dark and light, color, texture, balance and size relationships.
Emphasis is on two-dimensional work.
Prerequisites: 3b: ART 3a with a grade of "C." Recommended: 3a: Reading Level 1.
Hours: (3ab-108) 6 lect/studio. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN ART 14)

ART 3ef Fundamentals of Color 1 (3 units)
3e–3f (1.5–1.5) equivalent to 3ef.
A course in the fundamentals of color for artists and designers. The Munsell theory and other color systems will be studied with application for the best methods of mixing and relating colors. Prerequisite: 3f: ART 3e with a grade of "C." Recommended: 3e: Reading Level 1.
Hours: (3ef–108) 6 lect/studio. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

ART 3gb Fundamentals of Color 2 (3 units)
3g–3h (1.5–1.5) equivalent to 3gh.
Fundamental color mechanics and aesthetics as they relate to design and graphic applications. Prerequisites: 3g: ART 3ef with a grade of "C." 3h: ART 3g with a grade of "C." Hours: (3gh–108) 2 lect, 4 studio. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

ART 4ab Basic Painting — Acrylic Media (3 units)
4a–4b (1.5–1.5) equivalent to 4ab.
Basic principles of acrylic color mixing and color harmony including basic composition, particularly those aspects with grouping color movements on both the picture plane and the illusionary space. Prerequisite: 4b: ART 4a with a grade of "C." Recommended: 4a: Reading Level 1.
Hours: (4ab–108) 2 lect, 4 studio. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

ART 4cd Advanced Painting — Acrylic Media (3 units)
4c–4d (1.5–1.5) equivalent to 4cd.
An extension of ART 4ab. Emphasizes shifts from technical information to problems of composition and design. Prerequisites: 4c: ART 4ab with a grade of "C." 4d: ART 4c with a grade of "C." Hours: (4cd–108) 6 lect/studio. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

ART 4ef Water Color Painting (3 units)
4e–4f (1.5–1.5) equivalent to 4ef.
ART 4e is a systematic study of watercolor techniques and materials; 4f is a study of the aesthetic application of those techniques in composition. Prerequisite: 4f: ART 4e with a grade of "C." Recommended: 4e: Reading Level 1.

ART 4gh Figure Painting (3 units)
4g–4h (1.5–1.5) equivalent to 4gh.
Guided work from the figure using traditional as well as innovative oil painting techniques. Emphasizes the figure in harmony with its environment. Both color and black and white studies. Prerequisites: 4g: ART 2ab or ART 2ef with a grade of "C." 4h: ART 4g with a grade of "C." Hours: (4gh–108) 2 lect, 4 studio. Field trips may be required. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

ART 4ab Basic Oil Painting (3 units)
5a–5b (1.5–1.5) equivalent to 5ab.
Introduces the student to basic principles of oil color mixing and color harmony. Basic composition also will be taught, particularly those aspects that deal with grouping color movements on both the picture plane and the illusionary space. Prerequisite: 5b: ART 5a with a grade of "C." Recommended: 5a: Reading Level 1.

ART 5cd Basic Oil Painting (3 units)
5c–5d (1.5–1.5) equivalent to 5cd.
Various painting supports, grounds, paints, oils, dryers, and varnishes. Emphasizes compositional elements and their effects on visual dynamics regardless of subject matter. Prerequisites: 5c: ART 5ab with a grade of "C." 5d: ART 5c with a grade of "C." Hours: (5cd–108) 2 lect, 4 studio. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

ART 5ef Intermediate Oil Painting (3 units)
5e–5f (1.5–1.5) equivalent to 5ef.
Study of illusions in space and movement as used for expressive impact. Varied subject
matter and painting styles will be emphasized including experimentation within a structured program and concepts developed in ART 5ab and 5cd. **Prerequisites:** 5e: ART 5cd with a grade of “C.” 5f: ART 5e with a grade of “C.” **Hours:** (5ef–108) 2 lect, 4 studio. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**ART 5gh Advanced Oil Painting (3 units)**
5g–5h (1.5–1.5) equivalent to 5gh.
Under the guidance of the instructor, the student will develop personal art assignments that will move the student toward individual objectives in painting. Creativity will be especially encouraged, but basic concepts will not be ignored. **Prerequisites:** 5g: ART 5ef with a grade of “C.” 5h: ART 5g with a grade of “C.” **Hours:** (5gh–108) 6 lect/studio. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**ART 6ab Ceramics — Handbuilding (3 units)**
6a–6b (1.5–1.5) equivalent to 6ab.
Exploration of glaze calculation and kiln firing including advanced work in basic techniques of methods, related concepts, and materials related to clay. **Prerequisite:** 6b: ART 6a with a grade of “C.” **Recommended:** 6a: Reading Level 1. **Hours:** (6ab–108) 2 lect, 4 studio. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**ART 6cd Ceramics — Advanced Handbuilding (3 units)**
6c–6d (1.5–1.5) equivalent to 6cd.
Deals in the more sophisticated techniques of handbuilt ceramics. Students will work with a variety of clay bodies and will be introduced to the process of making and testing glazes. Students will work with the raku method and will also participate in a primitive kiln building and firing. **Prerequisites:** 6c: ART 6ab with a grade of “C.” 6d: ART 6c with a grade of “C.” **Hours:** (6cd–108) 6 lect/studio. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**ART 7ab Ceramics — Basic (3 units)**
7a–7b (1.5–1.5) equivalent to 7ab.
Basic ceramic materials and techniques. Preparation, handbuilding, wheel throwing, design techniques and glaze application are explored. **Prerequisite:** 7b: ART 7a with a grade of “C.” **Recommended:** 7a: Reading Level 1. **Hours:** (7ab–108) 2 lect, 4 studio. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**ART 7cd Ceramics — Intermediate (3 units)**
7c–7d (1.5–1.5) equivalent to 7cd.
Exploration of glaze calculation and kiln firing including advanced work in basic techniques of methods, concepts, and materials related to clay. **Prerequisite:** 7c: ART 7ab with a grade of “C.” 7d: ART 7c with a grade of “C.” **Hours:** (7cd–108) 2 lect, 4 studio. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**ART 7ef Ceramics — Advanced (3 units)**
7e–7f (1.5–1.5) equivalent to 7ef.
Designed to offer the student an opportunity to further develop basic ceramic skills. Advanced work in glaze calculations, kiln firing and clay constructions. **Prerequisite:** 7e: ART 7cd with a grade of “C.” 7f: ART 7e with a grade of “C.” **Hours:** (7ef–108) 6 lect/studio. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**ART 7gh Ceramics — Advanced (3 units)**
7g–7h (1.5–1.5) equivalent to 7gh.
Special projects in advanced ceramic techniques. Individual research problems in kiln building, wheel building, tool construction and production techniques. **Prerequisites:** 7g: ART 7ef with a grade of “C.” 7h: ART 7g with a grade of “C.” **Hours:** (7gh–108) 2 lect, 4 studio. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**ART 8ab Jewelry (3 units)**
8a–8b (1.5–1.5) equivalent to 8ab.
Fundamental techniques and processes are studied in the designing, forming and finishing of jewelry and other articles in the soft metals, such as brass, copper, gold, and sterling silver. **Prerequisite:** 8b: ART 8a with a grade of “C.” **Recommended:** 8a: Reading Level 1. **Hours:** (8ab–108) 6 lect/studio. CCS: Liberal Arts & Sciences. **Transferable:** CSU and private colleges.
ART 8cd Advanced Jewelry (3 units)
8c–8d (1.5–1.5) equivalent to 8cd.
A continuation of beginning jewelry with an explanation of the “lost wax process,” experimental casting and stone setting. **Prerequisites:** 8c: ART 8ab with a grade of “C.” 8d: ART 8c with a grade of “C.” **Hours:** (8cd–108) 6 lect/studio. CCS: Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

ART 8ef Advanced Jewelry (3 units)
8e–8f (1.5–1.5) equivalent to 8ef.
A continuation of ART 8cd with emphasis on electroforming, electroplating and surface embellishment. Individual projects are encouraged for all students stressing imaginative and creative interests. **Prerequisites:** 8e: ART 8cd with a grade of “C.” 8f: ART 8e with a grade of “C.” **Hours:** (8ef–108) 6 lect/studio. CCS: Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

ART 8gh Advanced Jewelry (3 units)
8g–8h (1.5–1.5) equivalent to 8gh.
A continuation of ART 8ef with emphasis on independent study, special problems and marketing procedures. **Prerequisites:** 8g: ART 8ef with a grade of “C.” 8h: ART 8g with a grade of “C.” **Hours:** (8gh–108) 6 lect/studio. CCS: Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

ART 9ab Glass Design — Glass Blowing (3 units)
9a–9b (1.5–1.5) equivalent to 9ab.
Basic techniques of handblown glass including glass as an expressive medium in a leaded glass panel. **Prerequisite:** 9b: ART 9a with a grade of “C.” **Recommended:** 9a: Reading Level 1. **Hours:** (9ab–108) 2 lect/demo, 4 studio. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

ART 9cd Advanced Glass Design (3 units)
9c–9d (1.5–1.5) equivalent to 9cd.
Advanced techniques of off-hand glass blowing. Extended exploration of the medium of art glass including more advanced blowing techniques, exploration of color, decoration and studio construction. **Prerequisites:** 9c: ART 9ab with a grade of “C.” 9d: ART 9c with a grade of “C.” **Hours:** (9cd–108) 2 lect/demo, 4 studio. CCS: Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

ART 11ab Sculpture (3 units)
11a–11b (1.5–1.5) equivalent to 11ab.
An exploration of sculptural concepts and their translation into three-dimensional forms. Problems involving various technical means and the functions of materials and techniques in the creative process. **Prerequisite:** 11b: ART 11a with a grade of “C.” **Recommended:** 11a: Reading Level 1. **Hours:** (11ab–108) 6 lect/studio. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. (CAN ART 12)

ART 11cd Advanced Sculpture (3 units)
11c–11d (1.5–1.5) equivalent to 11cd.
Advanced study in the exploration of sculptural concepts. Emphasizes expressive meaning of form and potential of materials. **Prerequisites:** 11c: ART 11ab with a grade of “C.” 11d: ART 11c with a grade of “C.” **Hours:** (11cd–108) 6 lect/studio. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

ART 12ab Figure Sculpture (3 units)
12a–12b (1.5–1.5) equivalent to 12ab.
Emphasis on perceiving and establishing the human form in sculptural materials. **Prerequisite:** 12b: ART 12a with a grade of “C.” **Recommended:** 12a: Reading Level 1. **Hours:** (12ab–108) 6 lect/studio. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

ART 12cd Advanced Figure Sculpture (3 units)
12c–12d (1.5–1.5) equivalent to 12cd.
Emphasis on perceiving and establishing the human form in sculptural materials. **Prerequisite:** 12b: ART 12a with a grade of “C.” 12d: ART 12c with a grade of “C.” **Hours:** (12cd–108) 6 lect/studio. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

ART 13cd Beginning Printmaking: Intaglio and Monoprint (3 units)
13c–13d (1.5–1.5) equivalent to 13cd.
Expressive potential of the fine art print through the knowledge gained in intaglio and monotype
printing techniques. **Prerequisite:** 13d: ART 13c with a grade of “C.” **Recommended:** 13c: Reading Level 1. **Hours:** (13cd–108) 2 lect, 4 studio. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**ART 14ab Lettering (3 units)**

14a–14b (1.5–1.5) equivalent to 14ab.

A study of basic letter forms; history and development of writing, with emphasis on calligraphy as a fine art. Includes creative lettering design and introduction to lettering for advertising and reproductions. **Prerequisite:** 14b: ART 14a with a grade of “C.” **Recommended:** 14a: Reading Level 1. **Hours:** (14ab–108) 6 lect/studio. CCS: Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

**ART 15ab Advertising Graphics (3 units)**

15a–15b (1.5–1.5) equivalent to 15ab.

A study of areas of translatable to symbolic representation and the methods of organizing such visual images for effective communication. Emphasis is on design for various media; integration of concept with execution and desired perceptual response. **Prerequisite:** 15b: ART 15a with a grade of “C.” **Recommended:** 15a: Reading Level 1. **Hours:** (15ab–108) 6 lect/studio. CCS: Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

**ART 17ab Elementary Photography (3 units)**

17a–17b (1.5–1.5) equivalent to 17ab.

Study of the basic principles of cameras, optics, light, film and development, exposure and exposure meters and enlarging. Emphasis is on photographic quality, exploration of the photographer’s environment, and personal expression. A suitable adjustable camera is recommended. **Prerequisite:** 17b: ART 17a with a grade of “C.” **Recommended:** 17a: Reading Level 1. **Hours:** (17ab–108) 6 lect/studio. Field trips required. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. (CAN ART 18)

**ART 17cd Intermediate Photography (3 units)**

17c–17d (1.5–1.5) equivalent to 17cd.

The student will complete assignments that will emphasize the refinement of technique and personal expression. A suitable adjustable camera is required. **Prerequisite:** 17c: ART 17ab with a grade of “C.” or equivalent. **Recommended:** 17d: ART 17c with a grade of “C.” **Hours:** (17cd–108) 6 lect/studio. Field trips required. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**ART 17ef Color Photography (3 units)**

17e–17f (1.5–1.5) equivalent to 17ef.

An advanced course designed to give the student an introduction to color photography. There will be problems in color processing; color reversal material and color printing from color negatives. Emphasizes color theory, and the perceptive aspects of color will be related through assignments. **Prerequisites:** 17e: ART 17ab with a grade of “C.” 17f: ART 17e with a grade of “C.” or evaluation by instructor. **Hours:** (17ef–108) 6 lect/studio. CCS: Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

**ART 17gh Advanced Photography (3 units)**

17g–17h (1.5–1.5) equivalent to 17gh.

Study of photography in an area of specialized interest. Advanced work is done in camera technique, dark, room practices and studio. Emphasis is on area of personal interest. Technically proficient work of a creative and original nature is expected. **Prerequisites:** 17g: ART 17cd or 17ef with a grade of “C.” 17h: ART 17g with a grade of “C.” **Hours:** (17gh–108) 6 lect/studio. Field trips required. CCS: Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

**ART 17ij Photographic Problems (3 units)**

17i–17j (1.5–1.5) equivalent to 17ij.

An advanced course designed to strengthen the student’s technical skills and involvement in various visual photographic problems.
directed toward creativity and nonverbal communication. **Prerequisite:** Evaluation by instructor. **Recommended:** Reading Level 1. **Hours:** (17ij–108) 6 lect/studio. CCS: Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

**ART 18ab Individual Projects in Photography (2 units)**

18a–18b (1–1) equivalent to 18ab.  
Special instruction in preparation for professional experience. Strengthening of graphic visualization and technical competence through challenging individual assignments. The content is not structured in the manner of beginning and advanced photography courses. **Prerequisite:** Evaluation by instructor. **Recommended:** Reading Level 1. **Hours:** (18ab–72) 1 lect, 3 studio. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges.

**ART 25AB Art Gallery Management and Art Portfolio Development (3 units)**

25a–25b (1.5–1.5) equivalent to 25ab.  
Course is for the art student and students of other multi-disciplinary areas that need knowledge and experience in the preparation of their work for exhibiting and marketing. Topics discussed include: the art gallery, its function and operations, and preparation of work for exhibiting. Also, involvement in the activities of a working gallery. **Prerequisite:** 25b: ART 25a with a grade of "C." **Recommended:** 25a: Reading Level 1. **Hours:** (25ab–108) 6 lect/studio. CCS: Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

**ART 30a Ancient Mediterranean Art (3 units)**

Slide lecture survey of the architecture, sculpture and painting of the ancient Mediterranean area from the Old Stone Age to the time of Constantine the Great. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. (CAN ART 2 is equivalent to ART 30a and ART 30b.)

**ART 30c Renaissance Art (3 units)**

Slide presentation survey of the art of Europe from the 15th to 17th centuries. Includes Renaissance and Baroque periods in western Europe with emphasis on the art development in Italy. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. (CAN ART 4 is equivalent to ART 30c and ART 30d)

**ART 30d Modern Art (3 units)**

Slide presentation of the survey of art from the 18th century to the present. Includes: rococo, romantic, realistic, art nouveau, fauve, expressionism, cubism, dada, surrealism, social realism, international, non-objective, and abstract styles in Europe and the United States. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. (CAN ART 4 is equivalent to ART 30c and ART 30d)

**ART 33 ART of the Andes (3 units)**

A study of native American art forms from pre-Columbian to modern times in the Andean region. Included is a survey of Baroque and Moorish styles introduced in the colonial period. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.
Behavioral Sciences

Anthropology
Human Services
Psychology
Sociology
All behavioral science courses with a course number of 49 and below will transfer to state colleges, University of California campuses and to private colleges.

Described below are requirements which must be met by the student who wishes to earn an Associate Degree from Bakersfield College in either Anthropology, Psychology, Sociology or Human Services.

Students should be aware that these requirements are specific to Bakersfield College and do not necessarily apply to a college or university to which they intend to transfer. Most four-year institutions limit the number of lower division units which can be counted toward one's major; therefore, some courses taken at Bakersfield College may count only as elective credit. A counselor should be consulted for accurate advice. It is strongly recommended that transfer students check with the four-year college to which they plan to transfer about the transferability of any course taken at Bakersfield College.

ASSOCIATE IN ARTS DEGREE PROGRAM
ANTHROPOLOGY
The objective of this program is to prepare the student for upper-division study in anthropology at a four-year college or university. Anthropology focuses on the variety of human cultural patterns, both past and present, to create an awareness and understanding of the science of human behavior. Most graduates with a degree in anthropology are likely to pursue careers in teaching, government service, research, law, and business.

Minimum units required in discipline: 18

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 1</td>
<td>Physical Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANTH 2</td>
<td>Cultural Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANTH 5</td>
<td>North American Indians</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYCH 1a</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 1</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Elective—Any Behavioral Science course</td>
<td>3.0</td>
</tr>
</tbody>
</table>

HUMAN SERVICES
The Associate in Arts Degree in Human Services will include general requirements for the Associate in Arts Degree. The major in Human Services provides the student with an academic background for entry-level positions in various human services agencies. It also prepares the student for upper-division work in human services and other behavioral sciences.

General Requirements
General requirements for an Associate in Arts Degree shall be met as specified in the graduation section of the current catalog.

Discipline Requirements
Discipline requirements shall include a minimum of 19 units for the Associate in Arts Degree in Human Services. Students must complete all required courses.

Minimum units required in discipline: 19

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 40 or</td>
<td>Introduction to Human Services</td>
<td>3.0</td>
</tr>
<tr>
<td>HUM S 40</td>
<td>Introduction to Human Services</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 1</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 45 or</td>
<td>Minority Relations</td>
<td>3.0</td>
</tr>
<tr>
<td>HUM S 45</td>
<td>Minority Relations</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYCH 1a</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

One of the following courses is required:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH DV 13a</td>
<td>Child Growth and Development</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYCH 40</td>
<td>Child Psychology and Development</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Any combination of four units from the following three courses is required. Note: All units must be completed in agencies where assignment and supervision is approved by Program Director.

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEH S 248</td>
<td>Cooperative Work Experience Education</td>
<td>1-4.0</td>
</tr>
<tr>
<td>BEH S 249</td>
<td>Cooperative Work Experience Education</td>
<td>1-4.0</td>
</tr>
<tr>
<td>SOC 5 or</td>
<td>Human Services Internship</td>
<td>1-4.0</td>
</tr>
<tr>
<td>HUM S 5</td>
<td>Human Services Internship</td>
<td>1-4.0</td>
</tr>
</tbody>
</table>
BEHAVIORAL SCIENCES

PSYCHOLOGY
The major in psychology provides a study of the behavior of individuals and groups. The four-year degree in this major prepares the student for positions in research and teaching, counseling, and working in clinical settings.

Minimum units required in discipline: 19

Required Courses
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYCH 1a</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYCH 5</td>
<td>Elementary Statistics for the Behavioral and Social Sciences</td>
<td>4.0</td>
</tr>
<tr>
<td>PSYCH 40</td>
<td>Child Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 1</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANTH 2</td>
<td>Cultural Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYCH 20</td>
<td>Social Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYCH 30</td>
<td>Human Sexuality</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYCH 37</td>
<td>Psychology of Gender Roles</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYCH 45</td>
<td>Behavior Modification</td>
<td>3.0</td>
</tr>
</tbody>
</table>

SOCIOCY
Sociology studies groups, institutions, social relationships, and social problems in contemporary society. The sociology major prepares for careers in law, social work, urban development, law enforcement agencies, public service, counseling, mental health, teaching, and community service.

Minimum units required in discipline: 19

Required Courses
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 1</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 2</td>
<td>Problems in Modern Society</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 20</td>
<td>Social Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYCH 20</td>
<td>Social Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 40</td>
<td>Introduction to Human Services</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 45</td>
<td>Minority Relations</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYCH 1a</td>
<td>General Psychology</td>
<td>3.0</td>
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<td>ANTH 2</td>
<td>Cultural Anthropology</td>
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<td>Elementary Statistics for the Behavioral and Social Sciences</td>
<td>4.0</td>
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</tbody>
</table>

ASSOCIATE IN SCIENCE DEGREE PROGRAM
HUMAN SERVICES
The Associate in Science Degree in Human Services will include the general requirements for the Associate in Science Degree. The major in Human Services provides the student with an academic background for entry-level positions in various human services agencies. It also prepares the student for upper-division work in human services and the other behavioral sciences.

General Requirements
General requirements for an Associate in Science Degree shall be met as specified in the graduation section of the current catalog.

Discipline Requirements
Discipline requirements shall include a minimum of 30 units for the Associate in Science degree in Human Services. Students must complete all required courses.

Minimum units required in discipline: 30

Required Courses
<table>
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<tr>
<th>Course Number</th>
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<tbody>
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<tr>
<td>SOC 1</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 45 or</td>
<td>Minority Relations</td>
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</tr>
<tr>
<td>HUM S 45</td>
<td>Minority Relations</td>
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<tr>
<td>PSYCH 1a</td>
<td>General Psychology</td>
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</tr>
<tr>
<td>CH DV 13a</td>
<td>Child Growth and Development</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYCH 40</td>
<td>Child Psychology and Development</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Any combination of four units from the following three courses is required. Note: All units must be completed in agencies where assignment and supervision is approved by Program Director.

<table>
<thead>
<tr>
<th>Course Number</th>
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<th>Units</th>
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<tbody>
<tr>
<td>BEH S 248</td>
<td>Cooperative Work Experience Education</td>
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<tr>
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</tr>
</tbody>
</table>

Students must select the remaining 11 units of discipline requirements from the following courses:

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>ANTH 1</td>
<td>Physical Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANTH 2</td>
<td>Cultural Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANTH 5</td>
<td>North American Indians</td>
<td>3.0</td>
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</table>

(Continued next page)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PSYCH 5</td>
<td>Elementary Statistics for the Behavioraland Social Sciences</td>
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<tr>
<td>PSYCH 6</td>
<td>Introduction to Behavioral Science Research</td>
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</tr>
<tr>
<td>PSYCH 20 or</td>
<td>Social Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 20</td>
<td>Social Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYCH 25</td>
<td>States of Consciousness</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYCH 30</td>
<td>Human Sexuality</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYCH 31</td>
<td>Marriage</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYCH 33</td>
<td>Personal and Social Adjustment</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYCH 37</td>
<td>Psychology of Gender Roles</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYCH 45</td>
<td>Behavior Modification</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYCH 51</td>
<td>Psychology for Life</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 2</td>
<td>Problems of Modern Society</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 5 or</td>
<td>Human Services Internship</td>
<td>1-4.0</td>
</tr>
<tr>
<td>HUM S 5</td>
<td>Human Services Internship</td>
<td>1-4.0</td>
</tr>
<tr>
<td>SOC 10</td>
<td>Topics of Sociology</td>
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<td>SOC 28</td>
<td>Women in the World</td>
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<tr>
<td>SOC 30</td>
<td>Black Sociology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 36</td>
<td>Sociology of the Chicano</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 2 or</td>
<td>Introduction to Computer Information Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 50a</td>
<td>Introduction to the Microcomputer and MS DOS</td>
<td>1.0</td>
</tr>
<tr>
<td>SPAN lab</td>
<td>Elementary Spanish</td>
<td>5.0</td>
</tr>
<tr>
<td>SPCH 31d</td>
<td>Interracial Communication</td>
<td>1.5</td>
</tr>
</tbody>
</table>
BEHAVIORAL SCIENCES

COURSE DESCRIPTIONS

The following abbreviations are commonly used in the course descriptions: lect lecture; lab laboratory; demo demonstration; Repeat repeatability (see policy on course repetition); CCS Course Classification System. Hours given in parentheses are total hours for the course. Hours lecture, lab, etc., are hours required per week usually. Prerequisites are expressed as minimum requirements. See page 47 for a complete explanation. (CSU) indicates transferable to California State Universities; (UC) indicates Transferable to University of California.

ANTHROPOLOGY

ANTH 1 Physical Anthropology (3 units)
Biological evolution of man and the non-human primates with emphasis on the human fossil record. Races of modern man and human population genetics. Recommended: Reading Level 1, English Level 2. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN ANTH 2)

ANTH 2 Cultural Anthropology (3 units)
The study of world cultures which will provide a foundation for a better understanding of all human societies, including the United States. Involves a comparative examination of different cultures, including both primitive and modern societies. Includes the study of culture and personality, subsistence patterns, economic and political systems, warfare and aggression, kinship and social organization, religion and culture change. Recommended: Reading Level 1, English Level 2. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN ANTH 4)

ANTH 5 North American Indians (3 units)
A descriptive study of Indian culture and societies in North America. Discussion of protohistoric, historic and modern culture groups. Designed to provide an understanding and appreciation of the Indians of North America. Recommended: Reading Level 1, English Level 2. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

BEHAVIORAL SCIENCE

Credit limitations may apply. For specific information see a counselor.

BEH S 248 Cooperative Work Experience Education
(1–8 units, limit 16 units)
See W EXT 248 description.

BEH S 249 Cooperative Work Experience Education
(1–4 units, limit 16 units)
See W EXP 249 description.

HUMAN SERVICES

Credit limitations may apply. For specific information see a counselor.

HUM S 5 Human Services Internship
(1–4 units, limit 8 units)
Study of human services organizations. Work internship under supervision in a human services field. Emphasizes integrating theory with practical application. Participation criteria may vary among the participating human services agencies. Signature of the instructor or the Program Director is required to register for this class. Recommended: Reading Level 1, English Level 2. Hours: (72–252) 1–2 hours seminar and 3–12 hours field work per week. Repeat: 3 or until a maximum of 8 units is reached. CCS: Occupational Education. Transferable: CSU and private colleges. Note: Students cannot exceed 8 units in combination with SOC 5.

HUM S 40 Introduction to Human Services (3 units)
Survey of helping institutions and social issues concerning human services; identification of target populations for human services applications; historical perspective of human services in the United States; theoretical perspectives of human services; survey of human services occupations; survey of careers in the human services; development of social policy concerning human services; and an overview of current controversies concerning human services; Recommended: Reading Level 1. Hours: (54) 3 lect. CCS: Occupational Education. Transferable: CSU and private colleges. Note: Not open to students with credit in SOC 40.
HUMS 45 Minority Relations (3 units)
An examination of the relationships among dominant and minority groups, the nature of prejudice, and patterns of discrimination; the role of immigration in the creation of minority status; the role of religious difference in a pluralistic society; the relationship of minority status to economic standing; consideration on American Indians, black Americans, Chicanos, Chinese Americans, Japanese Americans, other Asian Americans, and Jewish Americans; consideration of women as an oppressed majority sharing characteristics with minorities; international problems of race, ethnicity, and poverty. Prerequisite: SOC 1 or SOC 2.
Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges. Note: Not open to students with credit in SOC 45.

PSYCHOLOGY
Credit limitations may apply. For specific information see a counselor.

PSYCH 1a General Psychology (3 units)
An introduction to the scientific study of behavior. Emphasizes perceptions, thinking, motivation, emotion, intelligence and learning; designed to contribute significantly to the general education of all students as well as to provide a basis for further study in the field of psychology. Major emphasis is placed upon general psychological principles. Recommended: Reading level 1, English Level 2.
Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN PSY 2)

PSYCH 1ah Honors General Psychology (3 units)
Although similar in content to PSYCH 1a, topics are treated at the greater depth required for psychology majors and others intending to pursue upper division and/or graduate work in psychology. Recommended for students planning to transfer to the University of California. Recommended: Reading Level 1, English Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

PSYCH 5 Elementary Statistics for the Behavioral and Social Sciences (4 units)
Statistics as applied to the behavioral and social sciences. Emphasizes research design, the organization of data, measures of central tendency and variability, the normal curve, correlation and regression, hypothesis testing, parametric and nonparametric techniques, and one-way and two-way analysis of variance. Prerequisites: Introductory course in Psychology, Sociology, Anthropology, Economics, Political Science or concurrent enrollment. MATH D or equivalent. Recommended: Reading Level 1, English Level 2 eligibility.
Hours: (90) 5 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN PSY 6)

PSYCH 6 Introduction to Behavioral Science Research (3 units)
Emphasizes behavioral and social science research, including research design, data collection and analysis, and the development of basic computer skills. Students will collect and analyze data from experiments, questionnaires, polls and a variety of methodologies. Prerequisites: PSYCH 5 or MATH 22, introductory course in Psychology, Sociology, Anthropology, Economics or Political Science. Recommended: Reading Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

PSYCH 20 Social Psychology (3 units)
Examines the effects of group behavior on the individual, including, but not limited to, the study of conformity, mass communication, propaganda, persuasion, attitude formation, and attitude change. Also discussed are self-justification, pro-social behavior, aggression, prejudice, attraction, attribution, perception, motivation, and interpersonal relations. Includes the application of the scientific method and research strategies in social psychology. Prerequisites: SOC 1 or PSYCH 1a. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: Not open to students with credit in SOC 20.
PSYCH 25 States of Consciousness (3 units)
A basic study of comparative states of consciousness including focused awareness, sleep, dreaming, hypnosis, mediation, sensory deprivation, and chemical alterations. Emphasizes both physiological and psychological characteristics of states of awareness. **Prerequisite:** PSYCH 1a. **Hours:** (54) 3 lect. CCS: Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

PSYCH 30 Human Sexuality (3 units)
Basic knowledge of the human sexual system, the sexual act, today's sexual attitudes and behavior, sexual diseases and disorders, reproduction and birth control, sexual variance, sexual inadequacies and their treatment, and the legal and ethical aspects of sexuality. **Recommended:** Reading Level 1, English Level 2. **Hours:** (54) 3 lect. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

PSYCH 31 Marriage (3 units)
An opportunity for students to gain knowledge about the institution of marriage, including historical aspects of marriage and family life. Major emphasis is on attitudes, feelings, communication, and adjustment to marriage in a changing society. **Recommended:** Reading Level 1, English Level 2. **Hours:** (54) 3 lect/disc. CCS: Liberal Arts & Sciences. **Transferable:** CSU and private colleges. **Note:** Not open to students with credit in FAM S 31.

PSYCH 33 Personal and Social Adjustment (3 units)
Theories and dynamics of normal and abnormal personality development. The study of frustration, threat, and conflict, and the reactions to stress through defense mechanisms and coping behavior. Failures of adjustment in the form of neurosis, psychosis, psychosomatic disorders, and character disorders are studied, and consideration is given to the basic methods of psychotherapy and behavior therapy. **Prerequisites:** PSYCH 1a or PSYCH 51 with a grade of "B." **Recommended:** English Level 2. **Hours:** (54) 3 lect. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

PSYCH 37 Psychology of Gender Roles (3 units)
Images of men and women in history and mythology, sex differences in theories of development, stages of adjustment, abilities, achievement, and motivation, biological influences on behavior, sexuality, minority group sex roles, and cross-cultural perspectives on sex roles. Includes emphasis on application of the aforementioned theoretical knowledge to the life of the student. **Prerequisite:** PSYCH 1a. **Hours:** (54) 3 lect/discussion. CCS: Liberal Arts & Sciences. **Transferable:** UC.

PSYCH 38 Building Partnerships Between Men and Women (3 units)
Introductory course focusing on identifying and overcoming the barriers to effective male/female relationships. Topics covered include understanding the male/female cultures, overcoming the two barriers, logical outcomes of the barriers, conflict management. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect/disc. CCS: Liberal Arts & Sciences. **Transferable:** CSU and private colleges. **Note:** Not open to students with credit in COUNS 38.

PSYCH 40 Child Psychology and Development (3 units)
Studies the growth and development of children. Emphasizes intellectual and personality development as well as the handling of behavior problems through guidance and discipline. **Prerequisite:** PSYCH 1a. **Hours:** (54) 3 lect. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

PSYCH 45 Behavior Modification (3 units)
Basic principles of learning theory and their application to behavioral change introduced. Operant conditioning, techniques based upon operant conditioning, classical conditioning, techniques based upon the classical conditioning model, observational learning, and techniques based upon observational learning are included. Covers a comparison of the medical/learning model of mental illness, and a unit of physiological feedback. **Prerequisite:** PSYCH 1a. **Hours:** (54) 3 lect/disc. CCS: Liberal Arts & Sciences. **Transferable:** CSU and private colleges.
PSYCH 51 Psychology for Life (3 units)
A non-theoretical approach to the study of human behavior, designed to assist students in coping with the problems of everyday life. **Recommended:** Reading Level 2. **Hours:** (54) 3 lect. **CCS:** Pre collegiate — discipline specific. **Not Transferable:** Not degree applicable.

SOCIOLOGY
Credit limitations may apply. For specific information see a counselor.

SOC 1 Introduction to Sociology (3 units)
Concentration of sociology emphasizing the scientific study of human behavior. Includes the study of social groups; culture; socialization processes; social deviance; social stratification; ageism; sexism; racism; ethnicity; social inequality; demography; urbanization; collective behavior; family, religious, educational, economic, and political institutions; and social change. **Recommended:** Reading Level 1, English Level 2. **Hours:** (54) 3 lect. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. (CAN SOC 2)

SOC 2 Problems of Modern Society (3 units)
Studies the social problems of modern society, especially in the United States, in order to arrive at alternate methods of identification and measurement of social problems. An attempt to gain understanding by judging the probable results of proposed changes. Problems include deviant behavior, including crime and delinquency, alcoholism, family violence, deviant subcultures, problems of man in industrial society, including the industrial workers and white collar workers. Also stress and mental illness. **Prerequisites:** Introductory course in Sociology, Psychology, or Anthropology, or evaluation by instructor. **Recommended:** Reading Level 1, English Level 2. **Hours:** (54) 3 lect. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. (CAN SOC 4)

SOC 5 Human Services Internship
(1-4 units, limit 8 units)
Study of human services organizations. Work internship under supervision in a human services field. Emphasizes integrating theory with practical application. Participation criteria may vary among the participating human services agencies. Signature of the instructor or the Program Director is required to register for this class. **Recommended:** Reading Level 1, English Level 2. **Hours:** (72-252) 1-2 hours seminar and 3-12 hours field work per week. **Repeat:** 3 or until a maximum of 8 units is reached. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. **Note:** Students cannot exceed 8 units in combination with HUM S 5.

SOC 10 Topics in Sociology
(0.5-2 units, limit 8 units)
Selected topics in sociology which coincide with current student interests, special guest speakers, recent developments within the field, or events of importance to the community. **Prerequisite:** SOC 1. **Hours:** (9-36) 3 lect for 3-12 weeks. **Repeat:** 3 or until a maximum of 8 units is reached. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

SOC 20 Social Psychology (3 units)
Examines the effects of group behavior on the individual, including, but not limited to, the study of conformity, mass communication, propaganda, persuasion, attitude formation, and attitude change. Also discusses self-justification, pro-social behavior, aggression, prejudice, attraction, attribution, perception, motivation, and interpersonal relations. Includes the application of the scientific method and research strategies in social psychology. **Prerequisite:** SOC 1 or PSYCH 1a. **Hours:** (54) 3 lect. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. **Note:** Not open to students with credit in PSYCH 20.

SOC 28 Women in the World (3 units)
Study of women's role in the different parts of the world examining past activities and contributions of women in different societies. Attempts to gain understanding of changes and impact upon women's roles due to their cultural backgrounds. Societies include Israel, India, the United States, Europe,
Africa, and Latin America. **Recommended:** Reading Level 1, English Level 2. **Hours:** (54) 3 lect/disc. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. Note: Not open to students with credit in ST DV 28.

**SOC 30 Black Sociology (3 units)**
Studies inter-relationships of blacks and society as a whole, emphasizing the black perspective and the socio-economic characteristics of the black culture. **Recommended:** Reading Level 1, English Level 3. **Hours:** (54) 3 lect. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**SOC 36 Sociology of the Chicano (3 units)**
A survey of the socioeconomic characteristics of the Chicano community in the United States. Emphasizes the inter-relationships of Chicanos and society including the process of assimilation, minority status, and Chicano culture. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. Note: Not open to students with credit in CH ST 36.

**SOC 40 Introduction to Human Services (3 units)**
Survey of helping institutions and social issues concerning human services; identification of target populations for human services applications; historical perspective of human services in the United States; theoretical perspectives of human services; survey of human services occupations; survey of careers in the human services; development of social policy concerning human services; and an overview of current controversies concerning human services. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect. **CCS:** Precollegiate - discipline specific. **Not Transferable:** Not degree applicable.

**SOC 45 Minority Relations (3 units)**
An examination of the relationships among dominant and minority groups, the nature of prejudice, and patterns of discrimination; the role of immigration in the creation of minority status; the role of religious differ-
Business Education

Business
Business Accounting
Business Administration
Business Banking & Finance
Business Management
Business Marketing
Business Office Technology
Business Real Estate
Business Small Business
CERTIFICATES OF COMPLETION AND ACHIEVEMENT

These training programs are designed for those students who prefer to learn the fundamental skills required to get a job as quickly as possible. Many of the courses listed in the certificate programs will not transfer to a four-year institution. Students wishing to progress beyond the certificate level should consult with a counselor to ensure the courses they are taking will be acceptable toward the degrees they are seeking.

The department offers Certificates of Completion in Accounting, Management/Public Administration and Small Business. Contact the department for further information.

BOOKKEEPING CERTIFICATE

Upon completion of the following courses with at least a “C” grade in each course, a student will be awarded a Bookkeeping Certificate of Achievement.

Minimum units required in related disciplines: 24

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSAC 53a or 253a</td>
<td>Introduction to Accounting I</td>
<td>3.0</td>
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<tr>
<td>BUSAC 53b or 253b</td>
<td>Introduction to Accounting II</td>
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<tr>
<td>BUSAC 54 or 254</td>
<td>Payroll Accounting</td>
<td>3.0</td>
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<tr>
<td>BUSAC 55 or 255</td>
<td>Accounting on the Microcomputer</td>
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<td>BUSA 10</td>
<td>Business Mathematics on Electronic Calculators</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS 53 or 253</td>
<td>Business Mathematics on Electronic Calculators</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS 248</td>
<td>Cooperative Work Experience Education 1-4.0</td>
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</tr>
<tr>
<td>BUS 249</td>
<td>Cooperative Work Experience Education 1-4.0</td>
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</tr>
</tbody>
</table>

Note: BUS A 1a may be substituted for BUSAC 53a/253a and BUSAC 53b/253b.

CALIFORNIA REAL ESTATE CERTIFICATE

Approved by and operated in cooperation with the California Department of Real Estate and the California Association of Realtors.

Upon completion of the following courses with at least a “C” grade in each course, a student will be awarded a Real Estate Certificate of Achievement.

Minimum units required in related disciplines: 24

Required Courses

(Should be taken in listed order)

<table>
<thead>
<tr>
<th>Course</th>
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<td>Principles of Real Estate</td>
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<td>BUSRE 60</td>
<td>Legal Aspects of Real Estate</td>
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<td>BUSRE 61</td>
<td>Real Estate Economics</td>
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<tr>
<td>BUSRE 62</td>
<td>Real Estate Finance</td>
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<tr>
<td>BUSRE 63</td>
<td>Real Estate Appraisal</td>
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<td>BUSRE 64</td>
<td>Real Estate Practice</td>
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Electives

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<tbody>
<tr>
<td>BUSRE 55</td>
<td>Escrow Procedures</td>
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<tr>
<td>BUSRE 65</td>
<td>Real Estate Investment and Taxation</td>
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</tr>
<tr>
<td>BUSRE 68</td>
<td>Advanced Real Estate Appraisal</td>
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<tr>
<td>BUSRE 266</td>
<td>Real Estate Mathematics</td>
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<tr>
<td>CS 2</td>
<td>Introduction to Computer Information Systems</td>
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<tr>
<td>BUSMK 62</td>
<td>Fundamentals of Personal Selling</td>
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<td>BUSMK 64</td>
<td>Fundamentals of Advertising</td>
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<tr>
<td>BUSAC 53a or 253a</td>
<td>Introduction to Accounting I</td>
<td>3.0</td>
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<tr>
<td>BUSMG 43</td>
<td>Principles of Organization and Management</td>
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<tr>
<td>BUSRE 56</td>
<td>Escrow Procedures II</td>
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<tr>
<td>BUSRE 57</td>
<td>Property Management</td>
<td>3.0</td>
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<tr>
<td>BUS 248</td>
<td>Cooperative Work Experience Education 1-4.0</td>
<td></td>
</tr>
<tr>
<td>BUS 249</td>
<td>Cooperative Work Experience Education 1-4.0</td>
<td></td>
</tr>
</tbody>
</table>

GENERAL OFFICE/INFORMATION PROCESSING CERTIFICATE

Upon completion of the following courses with at least a “C” grade in each course, a student may apply to the Division Office for a General Office/Information Processing Certificate of Achievement.

(Continued next page)
Minimum units required: 25.5

### Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>BUSOT 252ac</td>
<td>Beginning Keyboarding, Parts 1-2-3</td>
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<tr>
<td>BUSOT 253ac</td>
<td>Intermediate Keyboarding, Parts 1-2-3</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 58</td>
<td>Business English</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSOT 78</td>
<td>Office Procedures</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSOT 257</td>
<td>Filing</td>
<td>1.5</td>
</tr>
<tr>
<td>BUSOT 85</td>
<td>Introduction to Information &amp; Records Management</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSOT 253ac</td>
<td>Introduction to Keyboarding, Parts 1-2-3</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSOT 257</td>
<td>Filing</td>
<td>1.5</td>
</tr>
<tr>
<td>BUSOT 257</td>
<td>Filing</td>
<td>1.5</td>
</tr>
<tr>
<td>BUS 58</td>
<td>Business English</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSOT 78</td>
<td>Office Procedures</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 253</td>
<td>Business Mathematics on Electronic Calculators</td>
<td>4.0</td>
</tr>
<tr>
<td>CS 50a or</td>
<td>Introduction to the Microcomputer and MS DOS</td>
<td>1.0</td>
</tr>
<tr>
<td>CS 51a or</td>
<td>Introduction to the Microcomputer and MS Windows</td>
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</tr>
<tr>
<td>BUSOT 65</td>
<td>Business English</td>
<td>3.0</td>
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<tr>
<td>BUS 253</td>
<td>Business Mathematics on Electronic Calculators</td>
<td>4.0</td>
</tr>
<tr>
<td>CS 55a or</td>
<td>Introduction to WordPerfect</td>
<td>1.0</td>
</tr>
<tr>
<td>CS 57a</td>
<td>Introduction to Microsoft Word for Windows</td>
<td>1.0</td>
</tr>
<tr>
<td>CS 55b</td>
<td>Intermediate WordPerfect</td>
<td>1.0</td>
</tr>
<tr>
<td>CS 60a or</td>
<td>Introduction to Lotus 1-2-3</td>
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<tr>
<td>CS 62a</td>
<td>Introduction to Spreadsheets with Excel</td>
<td>1.0</td>
</tr>
<tr>
<td>CS 65a or</td>
<td>Introduction to Microsoft Word for Windows</td>
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</tr>
<tr>
<td>CS 67a</td>
<td>Introduction to Paradox for Windows</td>
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</table>

### Other Suggested Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CS 55a or</td>
<td>Introduction to Accounting</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSAC 53a or</td>
<td>Introduction to Accounting</td>
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<tr>
<td>BUSAC 53b</td>
<td>Introduction to Accounting</td>
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<tr>
<td>BUSAC 54</td>
<td>Payroll Accounting</td>
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<tr>
<td>BUSAC 254</td>
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<tr>
<td>BUS A 10</td>
<td>Accounting on the Microcomputer</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 40</td>
<td>Personal Finance</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 53 or</td>
<td>Business Mathematics on Electronic Calculators</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS 253</td>
<td>Business Mathematics on Electronic Calculators</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS A 18a</td>
<td>Business Law</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 58</td>
<td>Business Relations and Motivation</td>
<td>3.0</td>
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### ELECTIVES

<table>
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<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>BUS 58</td>
<td>Human Relations and Motivation</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSMG 43</td>
<td>Principles of Organization and Management</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 2 or</td>
<td>Introduction to Computer Information Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 5</td>
<td>Introduction to Microcomputer Applications</td>
<td>3.0</td>
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<tr>
<td>BUS 248</td>
<td>Cooperative Work Experience Education 1-4</td>
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<tr>
<td>BUS 249</td>
<td>Cooperative Work Experience Education 1-4</td>
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</tbody>
</table>

### ASSOCIATE DEGREE PROGRAMS

Students are encouraged to continue their training and education beyond the Certificate of Achievement by taking additional technical-related courses and general education courses which may lead to an Associate in Science or Associate in Arts Degree.

Students must comply with the requirements as shown in the catalog under Graduation Requirements. Counselors/advisors will assist the student in planning for an associate degree.

### ACCOUNTING

#### Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>BUSAC 53a or</td>
<td>Introduction to Accounting</td>
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</tr>
<tr>
<td>BUSAC 253a</td>
<td>Introduction to Accounting</td>
<td>3.0</td>
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<td>BUSAC 53b or</td>
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<td>BUSAC 253b</td>
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<td>BUSAC 54</td>
<td>Payroll Accounting</td>
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<td>BUSAC 254</td>
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<td>BUS A 10</td>
<td>Accounting on the Microcomputer</td>
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<tr>
<td>BUS 40</td>
<td>Personal Finance</td>
<td>3.0</td>
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<tr>
<td>BUS 53 or</td>
<td>Business Mathematics on Electronic Calculators</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS 253</td>
<td>Business Mathematics on Electronic Calculators</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS A 18a</td>
<td>Business Law</td>
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<td>BUS 58</td>
<td>Business Relations and Motivation</td>
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<tr>
<td>CS 2</td>
<td>Introduction to Computer Information Systems</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Note: BUS A 1a may be substituted for BUSAC 53a or 253a and BUSAC 53b or 253b.

### ADMINISTRATIVE OFFICE ASSISTANT

Designed to prepare the student for employment as office support staff to assist managers, executives, and professionals.
BUSINESS EDUCATION

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSOT 252ac</td>
<td>Beginning Keyboarding, Parts 1-2-3</td>
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<tr>
<td>BUSOT 253ac</td>
<td>Intermediate Keyboarding, Parts 1-2-3</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSOT 257 or</td>
<td>Filing</td>
<td>1.5</td>
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<tr>
<td>BUSOT 85</td>
<td>Introduction to Information &amp; Records</td>
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<td>BUSOT 75 or</td>
<td>Business English</td>
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<tr>
<td>BUSOT 275</td>
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</tr>
<tr>
<td>BUSOT 78</td>
<td>Office Procedures</td>
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<tr>
<td>BUSMG 65b</td>
<td>Principles of Writing for Business/</td>
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<td>Public Organizations</td>
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<td>BUS 3</td>
<td>Business Communications</td>
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<tr>
<td>BUS 58</td>
<td>Human Relations and Motivation</td>
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<td>BUS 253</td>
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<tr>
<td>CS 57a</td>
<td>Introduction to Microsoft Word for</td>
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</tr>
<tr>
<td></td>
<td>Windows</td>
<td></td>
</tr>
<tr>
<td>CS 55b</td>
<td>Intermediate WordPerfect</td>
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</tr>
<tr>
<td>CS 55c</td>
<td>Advanced WordPerfect</td>
<td>1.0</td>
</tr>
<tr>
<td>CS 60a or</td>
<td>Introduction to Lotus 1-2-3</td>
<td>1.0</td>
</tr>
<tr>
<td>CS 62a</td>
<td>Introduction to Spreadsheets with Excel</td>
<td>1.0</td>
</tr>
<tr>
<td>CS 65a or</td>
<td>Introduction to dBase</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>for Windows</td>
<td></td>
</tr>
<tr>
<td>CS 67a</td>
<td>Introduction to Paradox for Windows</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Other Suggested Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS A 18a</td>
<td>Business Law</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSMG 62</td>
<td>Ethics in the Workplace</td>
<td>1.5</td>
</tr>
<tr>
<td>BUSMG 60a</td>
<td>Introduction to Supervisory Training</td>
<td>1.0</td>
</tr>
<tr>
<td>BUSAC 53a or</td>
<td>Introduction to Accounting I</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSAC 253a</td>
<td>Introduction to Accounting I</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS A 10</td>
<td>Accounting on the Microcomputer</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS A 20</td>
<td>Survey of Principles of Business and Industry</td>
<td>3.0</td>
</tr>
</tbody>
</table>

BANKING AND FINANCE

Designed for the student preparing to enter banking and financial services or those in a management training position in these two fields.

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSAC</td>
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<tr>
<td>BUSAC</td>
<td>Approved Course</td>
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</tr>
<tr>
<td>BUSBF 70</td>
<td>Principles of Banking</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSBF 72</td>
<td>Financial Analysis</td>
<td>1.5</td>
</tr>
<tr>
<td>BUSBF 76</td>
<td>Money and Banking</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 40</td>
<td>Personal Finance</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 58</td>
<td>Human Relations and Motivation</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 2</td>
<td>Introduction to Computer Information Systems</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Electives

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>BUSMG 43</td>
<td>Principles of Organization and Management</td>
<td>3.0</td>
</tr>
<tr>
<td>PHIL 14</td>
<td>Business and Social Responsibility</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 53 or</td>
<td>Business Mathematics on Electronic Calculators</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS 253</td>
<td>Business Mathematics on Electronic Calculators</td>
<td>4.0</td>
</tr>
</tbody>
</table>

BUSINESS ADMINISTRATION

The general purpose of the program in Business Administration at the university and state college is twofold. First, it is organized to help students to develop a broad understanding of our economy and our society in order to serve as a basis for responsible administrative and executive positions in business and government. Second, it offers the opportunity for students to acquire skills in specialized and professional types of employment.

BUSINESS ADMINISTRATION MAJOR

CALIFORNIA STATE COLLEGES AND UNIVERSITIES

Since requirements vary, the current catalog of the chosen college or university should be consulted for specific requirements of the School of Business Administration.

This suggested program will meet most of the lower division requirements at the California State colleges and universities as well as fulfilling all the requirements for the Associate in Arts Degree from Bakersfield College.

Pre-Major Electives

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 3</td>
<td>Business Communications</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSAC 53a</td>
<td>Introduction to Accounting I</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS A 20</td>
<td>Survey of the Principles of Business and Industry</td>
<td>3.0</td>
</tr>
<tr>
<td>PHIL 14</td>
<td>Business and Social Responsibility</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS A 1a</td>
<td>Financial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS A 1b</td>
<td>Managerial Accounting</td>
<td>4.0</td>
</tr>
</tbody>
</table>

(Continued next page)
CS 2 Introduction to Computer Information Systems 3.0
ECON 1 Principles of Economics—Micro 3.0
ECON 2 Principles of Economics—Macro 3.0
MATH 2 Basic Functions and Calculus for Business 4.0
MATH 22 Elementary Probability and Statistics 5.0

ECON2 Principles of Economics—Macro 3.0
MATII2 Basic Functions and Calculus for Business 4.0
MATII22 Elementary Probability and Statistics 5.0

Electives
Course Number Title Units
BUS A 18a Business Law 3.0
BUS A 10 Accounting on the Microcomputer 3.0
BUSMG 43 Principles of Organization and Management 3.0
BUS 58 Human Relations and Motivation 3.0
BUS 248 Cooperative Work Experience Education 1-4.0
BUS 249 Cooperative Work Experience Education 1-4.0

BUSAC 53a or BUSAC 53b Introduction to Accounting 1 3.0
BUSAC 253a or BUSAC 253b Introduction to Accounting 2 3.0
BUSAC 53a or BUSAC 53b Introduction to Accounting 1 3.0
BUSAC 253a or BUSAC 253b Introduction to Accounting 2 3.0
BUS RE 53 Fundamentals of Personal Selling 3.0
BUS MK 64 Fundamentals of Advertising 3.0
BUS RE 39 Principles of Real Estate 3.0
BUS RE 60 Legal Aspects of Real Estate 3.0
BUS RE 61 Real Estate Economics 3.0
BUS RE 62 Real Estate Finance 3.0
BUS RE 63 Real Estate Appraisal 3.0
BUS RE 64 Real Estate Practice 3.0
BUS RE 68 Advanced Real Estate Appraisal 3.0

MARKETING
Required Courses
Course Number Title Units
BUS A 20 Survey of the Principles of Business and Industry 3.0
BUS MK 1 Introduction to Marketing 3.0
BUS MK 53 Fundamentals of Retailing 3.0
BUS MK 62 Fundamentals of Selling 3.0
BUS MK 64 Fundamentals of Advertising 3.0
BUS 51 or Business Math 3.0
BUS 251 Business Math 3.0
BUSAC 53a or Introduction to Accounting I 3.0
BUSAC 53b or Introduction to Accounting II 3.0

Electives
Course Number Title Units
BUS 58 Human Relations and Motivation 3.0
BUSMG 43 Principles of Organization and Management 3.0
CS 2 or Introduction to Computer Information Systems 3.0
CS 5 Introduction to Microcomputer Applications 3.0
BUS 248 Cooperative Work Experience Education 1-4.0
BUS 249 Cooperative Work Experience Education 1-4.0

REAL ESTATE
Designed to prepare the student for a career in real estate. Job opportunities are in lending institutions doing specialized work in appraising, financing, managing property; in government, in real estate offices as a salesperson or broker. (State licensing examination is required.)
BUSINESS EDUCATION

COURSE DESCRIPTIONS
The following abbreviations are commonly used in the course descriptions: **lect** lecture; **lab** laboratory; **demo** demonstration; **Repeat** repeatability (see policy on course repetition); **CCS** Course Classification System.

Hours given in parentheses are total hours for the course. Hours lecture, lab, etc., are hours required per week usually. Prerequisites are expressed as minimum requirements. See page 47 for a complete explanation. (CSU) indicates transferable to California State Universities; (UC) indicates Transferable to University of California.

BUSINESS

Credit limitations may apply. For specific information see a counselor.

**BUS 3 Business Communications (3 units)**
An introduction to organizational communication. Instruction in group communication, listening, conflict resolution, leadership, employee phases and interviewing. Emphasizes understanding of communication in the workplace and related group processes.

**Recommended:** English Level 1, Reading Level 1. **Hours:** (54) 3 lect. CCS: Occupational Education. **Transferable:** CSU and private colleges. **Note:** Not open to students with credit in SPCH 3.

**BUS 40 Personal Finance (3 units)**
Teaches the principles and skills of budgeting, making intelligent consumer choices related to consumer credit, banking services, insurance, taxes, transportation, investing for personal retirement, and real estate planning.

**Recommended:** English Level 1. **Hours:** (54) 3 lect. CCS: Occupational Education. **Transferable:** CSU and Private colleges.

**BUS 51 Business Mathematics (3 units)**
Basic arithmetic skills reviewed and applied to the solution of business problems. Emphasizes bank records, invoices, cash and trade discounts, markup and markdown, inventory valuation, payroll, simple and compound interest, promissory notes, installment buying, stocks and bonds, amortization, real estate loans, property tax, personal income tax, depreciation, and insurance. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect. CCS: Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students with credit in BUS 53 or BUS 251, 253.

**BUS 53 Business Mathematics on Electronic Calculators (4 units)**
Reviews basic arithmetic skills along with instruction in the use of the 10-key adding machine by touch and all the functions of the electronic calculator. Using machines, complete business functions such as bank records, invoices, cash and trade discounts, markup and markdown, inventory valuation, payroll, simple and compound interest, promissory notes, installment buying, stocks and bonds, amortization, real estate loans, property tax, personal income tax, depreciation and insurance. **Prerequisite:** MATH 50 or equivalent. **Recommended:** Reading Level 1. **Hours:** (90) 5 lect/demo. CCS: Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students with credit in BUS 51, 251 or 253.

**BUS 54 Introduction to International Business (3 units)**
A comprehensive overview of international business designed to provide a global perspective on international trade including foreign investments, impact of financial markets, international marketing, and the operation of multinational corporations.

**Recommended:** Reading Level 1. **Hours:** (54) 3 lect. CCS: Occupational Education. **Not Transferable:** Associate Degree only.

**BUS 55 International Management (3 units)**
An introduction to international management principles with an overview of exporting companies, multinational and global organizations, international law, international human resource issues, operational issues, marketing decisions, strategic planning and competitiveness, and cross cultural issues.

**Recommended:** Reading Level 1. **Hours:** (54) 3 lect. CCS: Occupational Education. **Not Transferable:** Associate Degree only.
BUS 58 Human Relations and Motivation (3 units)
A behavioral approach to the business environment including self-understanding, motivation techniques as related to the job place, morale, discrimination, leadership techniques, effects of drugs and alcoholism on the individual and work group, career selection and communication skill building. **Recommended**: Reading Level 1. **Hours**: (54) 3 lect/disc. CCS: Occupational Education. **Not Transferable**: Associate Degree only.

**BUS 73 Introduction to Investments** (3 units)
An introduction to the principles of investments and money management with an in-depth survey of the stock market. **Recommended**: Reading Level 1. **Hours**: (54) 3 lect. CCS: Occupational Education. **Not Transferable**: Associate Degree only.

**BUS 251 Business Mathematics (3 units)**
Basic arithmetic skills reviewed and applied to the solution of business problems. Emphasizes bank records, invoices, cash and trade discounts, markup and markdown, inventory valuation, payroll, simple and compound interest, promissory notes, installment buying, stocks and bonds, amortization, real estate loans, property tax, personal income tax, depreciation and insurance. **Recommended**: Reading Level 1. **Hours**: (54) 3 hours individualized instruction or supervised lab. Open entry/open exit. CCS: Occupational Education. **Not Transferable**: Associate Degree only. **Note**: Not open to students with credit in BUS 53 or 253.

**BUS 264 Ten-Key Proficiency (1 unit)**
Skill and proficiency in the use of the ten-key calculator by touch and the application of such skill and proficiency in the solution of the more frequently encountered business problems and the processing of business forms and documents. **Recommended**: Reading Level 2. **Hours**: (30) 5 hours individualized instruction and supervised lab for 6 weeks. Open entry/open exit. CCS: Occupational Education. **Not Transferable**: Associate Degree only. **Note**: Not open to students with credit in BUS 53 or 253.

**BUS 253 Business Mathematics on Electronic Calculators (4 units)**
Basic arithmetic skills to increase proficiency and mastery of such skills in their application to business problems and situations. Students will become proficient in the use of the ten-key by touch, the use of all the functions of the electronic calculator, and master the technique of solving business problems with the aid of the calculator. Emphasizes bank records, invoices, cash and trade discounts, markup and markdown, inventory valuation, payroll, simple and compound interest, promissory notes, installment buying, stocks and bonds, amortization, real estate loans, property tax, personal income tax, depreciation and insurance. **Prerequisite**: MATH 50 or equivalent. **Recommended**: Reading Level 1. **Hours**: (90) 5 hours individualized instruction and supervised lab. Open entry/open exit. CCS: Occupational Education. **Not Transferable**: Associate Degree only. **Note**: Not open to students with credit in BUS 51, 53 or BUS 251.

**BUS 264 Ten-Key Proficiency (1 unit)**
Skill and proficiency in the use of the ten-key calculator by touch and the application of such skill and proficiency in the solution of the more frequently encountered business problems and the processing of business forms and documents. **Recommended**: Reading Level 2. **Hours**: (30) 5 hours individualized instruction and supervised lab for 6 weeks. Open entry/open exit. CCS: Occupational Education. **Not Transferable**: Associate Degree only. **Note**: Not open to students with credit in BUS 53 or 253.

**BUS 253 Business Mathematics on Electronic Calculators (4 units)**
Basic arithmetic skills to increase proficiency and mastery of such skills in their application to business problems and situations. Students will become proficient in the use of the ten-key by touch, the use of all the functions of the electronic calculator, and master the technique of solving business problems with the aid of the calculator. Emphasizes bank records, invoices, cash and trade discounts, markup and markdown, inventory valuation, payroll, simple and compound interest, promissory notes, installment buying, stocks and bonds, amortization, real estate loans, property tax, personal income tax, depreciation and insurance. **Prerequisite**: MATH 50 or equivalent. **Recommended**: Reading Level 1. **Hours**: (90) 5 hours individualized instruction and supervised lab. Open entry/open exit. CCS: Occupational Education. **Not Transferable**: Associate Degree only. **Note**: Not open to students with credit in BUS 51, 53 or BUS 251.

**BUS 253 Business Mathematics on Electronic Calculators (4 units)**
Basic arithmetic skills to increase proficiency and mastery of such skills in their application to business problems and situations. Students will become proficient in the use of the ten-key by touch, the use of all the functions of the electronic calculator, and master the technique of solving business problems with the aid of the calculator. Emphasizes bank records, invoices, cash and trade discounts, markup and markdown, inventory valuation, payroll, simple and compound interest, promissory notes, installment buying, stocks and bonds, amortization, real estate loans, property tax, personal income tax, depreciation and insurance. **Prerequisite**: MATH 50 or equivalent. **Recommended**: Reading Level 1. **Hours**: (90) 5 hours individualized instruction and supervised lab. Open entry/open exit. CCS: Occupational Education. **Not Transferable**: Associate Degree only. **Note**: Not open to students with credit in BUS 51, 53 or BUS 251.

**BUS 253 Business Mathematics on Electronic Calculators (4 units)**
Basic arithmetic skills to increase proficiency and mastery of such skills in their application to business problems and situations. Students will become proficient in the use of the ten-key by touch, the use of all the functions of the electronic calculator, and master the technique of solving business problems with the aid of the calculator. Emphasizes bank records, invoices, cash and trade discounts, markup and markdown, inventory valuation, payroll, simple and compound interest, promissory notes, installment buying, stocks and bonds, amortization, real estate loans, property tax, personal income tax, depreciation and insurance. **Prerequisite**: MATH 50 or equivalent. **Recommended**: Reading Level 1. **Hours**: (90) 5 hours individualized instruction and supervised lab. Open entry/open exit. CCS: Occupational Education. **Not Transferable**: Associate Degree only. **Note**: Not open to students with credit in BUS 51, 53 or BUS 251.
procedures including valuation of inventory, accounts receivable, notes payable, notes receivable and drafts, depreciation, depletion and amortization, capital stock transactions, bonds and other long-term liabilities, worksheets and payroll. **Prerequisite:** BUSAC 53a/253a. **Hours:** (54) 3 lect. CCS: Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students with credit in BUSAC 253b. **Note:** Formerly ACCTG 53b.

**BUSAC 54 Payroll Accounting (3 units)**
A foundation in payroll computations, payroll record keeping, and the filing of quarterly and annual payroll tax reports. Involves the study of California Disability Insurance, California Unemployment Insurance, Federal Social Security, Federal Unemployment Insurance, Federal Income Tax and California Income Tax, and how these taxes affect the employee/employer. **Prerequisite:** BUSAC 53a/253a (may be taken concurrently with BUSAC 53b/253b). **Hours:** (54) 3 lect. CCS: Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students with credit in BUSAC 254. **Note:** Formerly ACCTG 54.

**BUSAC 57 Federal and California Income Taxation (4 units)**
Instruction in Federal and California Income Tax law, theory and practice. Designed to meet 60-hour requirement for registration as a tax preparer, or to serve as a refresher course in current tax laws. **Prerequisites:** BUSAC 53a/253a or BUSAC 53b/253b or BUS A 1a or equivalent. **Hours:** (72) 4 lect. CCS: Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students with credit in BUSAC 257. **Note:** Formerly ACCTG 57.

**BUSAC 60 Basics of Accounting (1 unit)**
Designed for students who have had difficulty in another accounting class. Will use self-paced interactive computer tutorial to provide a basic understanding of the accounting cycle. Supervised repetition and practice to enhance success in future accounting courses. **Recommended:** Referral by instructor or counselor. **Hours:** (27) 1 lect, 2 lab for 9 weeks. CCS: Occupational Education. **Not Transferable:** Not degree applicable. **Note:** Formerly ACCTG 60.

**BUSAC 253a Introduction to Accounting 1 (3 units)**
An introduction to modern financial accounting theory and practice. Analysis of financial transactions using the rules of double-entry bookkeeping. Accounting cycle including adjusting entries, the expanded worksheet, the use of special journals, bank reconciliations, and the preparation of financial statements. **Recommended:** Reading Level 1, BUS 53/253 (may be taken concurrently). **Hours:** (54) 3 hours individualized instruction and supervised lab. CCS: Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students with credit in BUSAC 253b. **Note:** Formerly ACCTG 253a.

**BUSAC 253b Introduction to Accounting 2 (3 units)**
A continuation of an introduction to modern financial accounting theory and practice. Analysis of financial transactions peculiar to the partnership and corporate forms of business ownership. Accounting methods and procedures including valuation of inventory, accounts receivable, notes payable, notes receivable and drafts, depreciation, depletion and amortization, capital stock transactions, bonds and other long-term liabilities, worksheets and payroll. **Prerequisite:** BUSAC 53a/253a. **Recommended:** Reading Level 1. **Hours:** (54) 3 hours individualized instruction and supervised lab. CCS: Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students with credit in BUSAC 253b. **Note:** Formerly ACCTG 253b.

**BUSAC 254 Payroll Accounting (3 units)**
and California Income Tax, and how these taxes affect the employee/employer. **Prerequisite:** BUSAC 53a/253a (may be taken concurrently with BUSAC 53b/253b).  
**Recommended:** Reading Level 1. **Hours:** (54) 3 hours individualized instruction and supervised lab. **CCS:** Occupational Education.  
**Not Transferable:** Associate Degree only. **Note:** Not open to students with credit in BUSAC 54. **Note:** Formerly ACCTG 254.

**BUSAC 257 Federal and California Income Taxation (4 units)**  
Instruction in Federal and California Income Tax law, theory and practice. Designed to meet 60-hour requirement for registration as a tax preparer, or to serve as a refresher course in current tax laws. **Prerequisites:** BUSAC 53a/253a or BUSAC 53b/253b or BUS A 1a or equivalent. **Recommended:** Reading Level 1. **Hours:** (72) 4 hours individualized instruction and supervised lab. **Open entry/open exit. CCS:** Occupational Education.  
**Not Transferable:** Associate Degree only. **Note:** Not open to students with credit in BUSAC 57. **Note:** Formerly ACCTG 257.

**BUSINESS ADMINISTRATION**  
**Credit limitations may apply.** For specific information see a counselor.

**BUS A 1a Financial Accounting (4 units)**  
Introduction to accounting theory and practice. First semester presents the recording, analyzing, and summarizing procedures used in preparing balance sheets and income statements. It is recommended that this course be taken in the third or fourth semester at Bakersfield College before transferring. **Recommended:** Reading Level 1, English Level 2. **Hours:** (72) 4 lect. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. (CAN BUS 2)

**BUS A 1b Managerial Accounting (4 units)**  
Second-semester accounting. Theory and practice of managerial financial decisions involving debt and investments, analysis and interpretation of problems in corporate financial reporting, and cost accumulation and control. Including job order, process and standard costs. **Prerequisite:** BUS A 1a.  
**Hours:** (72) 4 lect. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. (CAN BUS 4)

**BUS A 10 Accounting on the Microcomputer (3 units)**  
Review and practical application of accounting principles, electronic spreadsheets, word processing and data management as they pertain to solution of accounting problems and situations on a microcomputer. Emphasizes analysis of problems and student initiative to solve the problems presented using computerized software available.  
**Prerequisite:** BUSAC 53a/b or BUS A 1a or equivalent. Prior familiarity with and knowledge of, computers. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**BUS A 18a Business Law (3 units)**  
Rules of law as they relate to business transactions. Origins of American legal system. Definition and classification of law. Court systems and procedure. Law of contracts: essentials of enforceable agreements, operation and discharge. Creation of relationship, rights and liabilities of parties and termination of relationship. Law of negotiable instruments: essentials of negotiability, negotiation and discharge. Law of property, personal property, acquisition, constitutional law, legislative, executive, judicial and administrative law. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.

**BUS A 18b Business Law (3 units)**  
fiduciary relationships, corporate responsibility and antitrust law, consumer right and ecological law. **Prerequisite:** BUS A 18a. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.

**BUS A 20 Survey of the Principles of Business and Industry (3 units)**
Introduction to the nature, function and management of the business enterprise in our modern political, social and economic environment. Evaluation of the relationships of business to government, to labor and to the public. **Recommended:** Reading Level 1, English Level 1. **Hours:** (54) 3 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**BUSINESS BANKING AND FINANCE**

**BUSBF 70 Principles of Banking (3 units)**
Provides both basic guidelines and timely coverage of current banking issues, including development of banking in the United States, economic functions of banks, examination of the principles upon which all banks operate, review of bank products and services, and regulation and control of banking. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly BANKG 70.

**BUSBF 72 Financial Analysis (1.5 units)**
Topics to be covered include types of business organizations and financial reporting; structure of the balance sheet and how it relates to the income statement; how to measure the cash flow cycle of a business; how to measure the borrowing needs of a business as well as the cause of the borrowing need; ratio analysis and a brief discussion of measuring risks in a business. **Recommended:** Practical understanding of accounting and/or bookkeeping basics. **Hours:** (27) 3 lect for 9 weeks. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly BANKG 72.

**BUSBF 76 Money and Banking (3 units)**
Emphasizes the banking system as the circulating medium of our economy; the effect of bank operation on the economy; the nature and creation of money; the uses of money in modern society; and the influence of money on price levels and on general business activity. Discusses the Federal Reserve system, its obligations and powers, and Treasury policy as it affects monetary problems. **Hours:** (54) 3 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly BANKG 76.

**BUSINESS MANAGEMENT**
Credit limitations may apply. For specific information see a counselor.

**BUSMG 41 Advanced Personnel Management (3 units)**
Advanced concepts, techniques, skills and theories in personnel practices. Content includes work analysis, staffing, training and development, performance appraisal systems, compensation programs, maintenance of the work environment and union relations. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect/disc. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. **Note:** Formerly MGMT 41.

**BUSMG 43 Principles of Organizations and Management (3 units)**
A study of formal organizations, the organizational environment and organizational planning and control. Topics include the nature of complex organizations, decision-making, small group studies and individual behavior. Also included are planning theory, systems management, and non-formal behavior. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect/disc. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. **Note:** Formerly MGMT 43.

**BUSMG 45 Advanced Study of Public Administration (3 units)**
Advanced examination of the historical and contemporary status of administrative institutions, principles and practices of public
BUSINESS EDUCATION

administration and the process of public management. Topics include: process of public policy formulation, government planning and programming and administrative decision-making. Recommended: Reading Level 1. Hours: (54) 3 lect/disc. CCS: Occupational Education. Transferable: CSU and private colleges. Note: Formerly MGMT 45.

BUSMG 48 Small Business Management (3 units)
Provides aspiring entrepreneurs and persons involved in small business ventures with the tools for achieving success in small business operations by analyzing opportunities for business start ups, buyouts, franchising and family business. Instruction for preparing a business plan, marketing plan, social and ethical responsibility, customer orientation and service, cash flow and cash management, international business opportunities, tax issues, computer software and legal aspects of doing business. Recommended: Reading Level I or evaluation by instructor. Hours: (51) Contact Time. CCS: Occupational Education. Transferable: CSU and private colleges. Note: Formerly MGMT 48.

BUSMG 50 Managing Quality Organizations (3 units)
Incorporates the systematic approach to constant improvement throughout an organization. Introduces themes, teams, tools/techniques of continuous quality improvement. Emphasizes the quality systems approach to: customer focus; and employee involvement in service, retail and manufacturing situations. Hours: (54) 3 lect. CCS: Occupational Education. Transferable: Associate Degree only. Note: Not open to students with credit in IND T 50.

BUSMG 51a-51b-51c Contemporary Logistics (1-1-1 units)
The process of planning, implementing and controlling the efficient, effective flow and storage of goods, and related information, from point of origin to point of consumption in accordance with customer requirements. Where possible, corporate operations will be integrated with text material. Logistics management is an essential element in organizations that handle the flow and storage of goods. Hours: (54) 3 lect for 6 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only.

BUSMG 60a Introduction to Supervisory Training (1 unit)
Emphasizes developing techniques and skills required to promote harmony and productivity within an organization. Includes self-management skills, human relations, employee supervision, planning, organizing, delegating and evaluating human resources and operations. Recommended: Reading Level 1. Hours: (18) 3 lect/disc for 6 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly MGMT 60a.

BUSMG 60b Advanced Supervisory Training (1 unit)
Advanced knowledge and skills providing supervisors with a management orientation. Designed for supervisors to improve their skills by participating in a program of performance objectives, case studies, and discussions on employee and management problems. Prerequisite: BUSMG 60a. Recommended: Reading Level 1. Hours: (18) 3 lect/disc for 6 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly MGMT 60b.

BUSMG 61 Personnel Management (1.5 units)
Comprehensive review of basic personnel management. Emphasizes concepts and techniques including recruitment and placement, training and development, compensation and motivation, performance appraisals, the legal environment of personnel. Recommended: Reading Level 1. Hours: (27) 3 lect/disc for 9 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly MGMT 61.

BUSMG 62 Ethics in the Workplace (1.5 units)
Overview of decision making in a business environment, social responsibility, and moral
philosophies to provide managers and anyone working in a business environment with a framework to identify, analyze and understand ethical issues and how business people make ethical decisions. Topics include: development of accountability, moral philosophies, current ethical case reviews, decision-making frameworks, the environment, organizational structure and culture, significant others in the organization, the roles of opportunity and conflict, controlling ethics, and the growing need and role of international business ethics in today’s society. Recommended: Reading Level 1. Hours: (27) 3 lect for 9 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly MGMT 62.

BUSMG 63 Advanced Written Communications (3 units)
Principles of written communication as an important function of management. Includes analysis of the most widely used forms of business writing as well as applications of the associated skills of dictation and reading. Recommended: Reading Level 1. Hours: (54) 3 lect/disc. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly MGMT 63.

BUSMG 65a Basic Principles of English for Business/Public Organizations (1 unit)
Examination of basic principles of English as they apply to today’s business office. Emphasis is on correct English usage for everyday routine situations. Recommended: Reading Level 1. Hours: (18) 3 lect/disc for 6 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly MGMT 65a.

BUSMG 65b Principles of Writing for Business/Public Organizations (1 unit)
Examination of the basic techniques involved in writing business letters, memos, and reports. Prerequisite: BUSMG 65a. Recommended: Reading Level 1. Hours: (18) 3 lect/disc for 6 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly MGMT 65b.

BUSMG 65c Organizational Communications (1 unit)
Processes of human behavior and communication within the organizational context. Discussion topics include: role of communication in organizations, communication styles, relationship between verbal and nonverbal behaviors, barriers to effective communication, identification of channels of communication within organizations, small-group communication, conflict and communication. Recommended: Reading Level 1. Hours: (18) 3 lect/disc for 6 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly MGMT 65c.

BUSMG 66 Case Studies in Management (1 unit)
Advanced knowledge and skills in solving managerial problems. Using the case method, discussions will cover a variety of topics. This is the last course of the Management/Public Administration Certificate. May be taken concurrently with other courses in the sequence. Recommended: Reading Level 1 or evaluation by instructor. Hours: (18) 3 lect/disc for 6 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly MGMT 66.

BUSMG 70 Topics in Management (0.5 unit each)
Workshops or seminars related to special topics of interest and concern to managers in both the private and public sectors. Recommended: Reading Level 1. Hours: (9) 3 lect for 3 weeks. Repeat: 2. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly MGMT 70.

BUSMG 70a Business Environment

BUSMG 70b Management and Organizational Issues

BUSMG 70c People and Productivity

BUSMG 70d Financial and Risk Management Issues

BUSMG 70e Marketing
BUSMG 70f Government and Business
BUSMG 70g Small Business and Entrepreneurship
BUSMG 70h Personal Career Development
BUSMG 70i Legal Environments of Business
BUSMG 70j Management Information Systems and Computers
BUSMG 70L The Stress/Work Connection
BUSMG 70m Franchising
BUSMG 71 Leadership and Management Training (1.5 units)
Leadership training with emphasis on student participation using practical class projects. Defines, discusses problems of and preparation for leadership. **Recommended:** Reading Level 1. **Hours:** (27) 3 lect/disc for 9 weeks. CCS: Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly MGMT 71.

BUSMG 72 Introduction to Management Practices (1.5 units)
Basic concepts, theories, and practices. A practical orientation focusing on what managers do, how they do it, and what factors determine whether or not they will be successful. **Recommended:** Reading Level 1. **Hours:** (27) 3 lect/disc for 9 weeks. CCS: Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly MGMT 72.

BUSMG 73 Improving Productivity at Work: Employee Performance and Motivation (1.5 units)
Review of the most effective behavioral management tools used to improve productivity while keeping costs to a minimum. **Recommended:** Reading Level 1. **Hours:** (27) 3 lect/disc for 9 weeks. CCS: Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly MGMT 73.

BUSMG 74 Labor Relations (1.5 units)
Examination of the historical development of the labor movement, the structure of union organizations, and federal agencies involved in labor relations in both the public and private sectors. Collective bargaining process will be covered including identification of bargaining issues, negotiations, contract administration. **Recommended:** Reading Level 1. **Hours:** (27) 3 lect/disc for 9 weeks. CCS: Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly MGMT 74.

BUSMG 76 Management of Change and Conflict (1.5 units)
Basic techniques and skills for producing and responding to change. Topics include how to diagnose both the behavioral problems of an individual and the organizational needs. **Prerequisites:** BUSMG 60a, BUSMG 60b. **Recommended:** Reading Level 1. **Hours:** (27) 3 lect/disc for 9 weeks. CCS: Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly MGMT 76.

BUSMG 77 Fundamentals of Public Administration (1.5 units)
How government agencies are formed, what their chains of command are, and how they work. Emphasizes the changing world of public administration, its financial resources, leadership and management functions, human resource issues, program evaluation and ethical concerns. **Recommended:** Reading Level 1. **Hours:** (27) 3 lect/disc for 9 weeks. CCS: Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly MGMT 77.

BUSINESS MARKETING
Credit limitations may apply. For specific information see a counselor.

BUSMK 1 Fundamentals of Marketing (3 units)
Basic key concepts and issues underlying the modern practice of marketing. Surveys the marketing concept, marketing research, buyer behavior, and environmental constraints. It is recommended that this course be taken in the third or fourth semester at Bakersfield
College before transferring. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect/disc. CCS: Occupational Education. **Transferable:** CSU and private colleges. **Note:** Formerly MKTG 1.

**BUSMK 53a Fundamentals of Retailing (3 units)**
Examination of opportunities in the field of goods and services and their allied occupations. Topics include: obtaining a job and keeping it, personality development, selling, merchandising, promotions, merchandising analysis, store mathematics, effective oral expression, and human relations. Business community is used as a laboratory to illustrate the latest methods and techniques. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect/disc. Field trip required. CCS: Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly MKTG 53a.

**BUSMK 53b Fundamentals of Retailing (3 units)**
Basic concepts, techniques and skills in the field of major appliances, styles for men and women, plastics, computers, shoes, and other merchandise. Field trips, window displays, and speaker demonstrations. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect/disc. Field trips required. CCS: Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly MKTG 53b.

**BUSMK 62 Fundamentals of Personal Selling (3 units)**
Fundamental principles of creative selling. Topics include: prospecting, the approach, methods of presentation and demonstration, marketing, meeting objections, the close and follow-up. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect/disc. CCS: Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly MKTG 62.

**BUSMK 64 Fundamentals of Advertising (3 units)**
Principles of advertising emphasizing: the marketing foundations of advertising, budgets, evaluating media, creating advertising, the advertising campaign, advertising and society, and advertising in the future.

**BUSOT 52ac Beginning Keyboarding (3 units)**
Develops the keyboard by touch and a knowledge of all operational parts of the typewriter. Instruction in centering, letter placement, simple tabulation, reports, rough drafts, forms, proofreading and error correction. **Recommended:** English Level 3, Reading Level 1. **Hours:** (90) 4 lect, 1 lab. CCS: Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students with credit in BUSOT 252ac.

**BUSOT 65 Windows for Business (1 unit)**
Introduces the Windows graphical environment and basic concepts using both the mouse and keyboard. Includes understanding the desktop, starting applications, working with documents, managing files, and using the various Windows accessories—Write, Paintbrush, Notepad, Cardfile, Calculator, Clock, and Recorder. **Recommended:** CS 50a and Reading Level 1. **Hours:** (36) 3 lect, 3 lab by arrangement for 6 weeks. CCS: Occupational Education. **Not Transferable:** Associate Degree only.

**BUSOT 75 Business English (3 units)**
Basic English usage including punctuation, capitalization, number usage, plurals, possessives, and grammar. **Recommended:** BUSOT 52ac/252c or one year of high school typing. English Level 2 eligibility, Reading Level 1. **Hours:** (54) 3 lect. CCS: Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students with credit in BUSOT 275.

**BUSOT 78 Office Procedures (3 units)**
A finishing course for those completing their training for an office career. Includes job attitudes, time management, document preparation, office technology, telephone techniques, processing mail, travel arrangements, keeping appointment calendars, arranging meetings, banking services, the job
application process and interviewing techniques. Offered SPRING semester only. 
**Prerequisite:** BUSOT 252b. **Recommended:** BUSOT 75, Reading Level 1, English Level 2. **Hours:** (54) 3 lect/disc. Field trips may be required. CCS: Occupational Education. Not Transferable: Associate Degree only.

**BUSOT 85 Introduction to Information & Records Management (3 units)**
An introduction to records management methodology. Develops the student's conceptual competencies in analyzing: roles and responsibilities of a records manager; active records within an organization; indexing rules and classification systems selection; and manual records storage and retrieval. **Hours:** (54) 3 lect. Field trip required. CCS: Occupational Education. Not Transferable: Associate Degree only.

**BUSOT 86 Systems and Functions of Information and Records Management (2 units)**
Focuses on all phases of records management from creation to storage, and retrieval to disposition of records. Records inventory, analysis, protection, and disposition are examined. Equipment and supplies to carry out a Records and Information Management Program are included. **Hours:** (36) 3 lect for 12 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only.

**BUSOT 87 Specialized Functions in Information and Records Management (2 units)**
The scope and concerns involved in the administration of a Records and Information Management Program are presented. Specialized functions such as forms management. Disaster prevention and recovery, micrographics, optical disk technology and reprographics will be explored. **Hours:** (36) 3 lect for 12 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only.

**BUSOT 95 Legal Terminology (3 units)**
Legal vocabulary, terminology, and underlying basic legal concepts encountered during a trial. **Recommended:** Reading Level 1.  
**Hours:** (54) 3 lect/disc/demo. CCS: Occupational Education. Not Transferable: Associate Degree only.

**BUSOT 252a Beginning Keyboarding, Part 1 (1 unit)**
Individualized typewriting instruction includes (1) learning the keyboard by touch, (2) all operational parts of the typewriter, and (3) horizontal and vertical centering. **Hours:** (30) 5 hours per week for 6 weeks, individualized instruction and supervised lab. Open entry/open exit. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Not open to students with credit in BUSOT 52a.

**BUSOT 252b Beginning Keyboarding, Part 2 (1 unit)**
Individualized typewriting instruction includes (1) developing typing speed and accuracy, (2) instruction in correcting typographical errors, (3) word division rules, and (4) correct formatting of reports, tables, and business letters. **Prerequisite:** BUSOT 252a with a grade of “C.” **Recommended:** English Level 3, Reading Level 1. **Hours:** (30) 5 hours per week for 6 weeks, individualized instruction and supervised lab. Open entry/open exit. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Not open to students with credit in BUSOT 52b.

**BUSOT 252c Beginning Keyboarding, Part 3 (1 unit)**
Individualized typewriting instruction includes (1) developing typing speed and accuracy, (2) instruction in correct formatting of memorandums, post cards, envelopes, printed forms, and reports. **Prerequisite:** BUSOT 252b with a grade of “C.” **Hours:** (30) 5 hours per week for 6 weeks, individualized instruction and supervised lab. Open entry/open exit. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Not open to students with credit in BUSOT 52ac.

**BUSOT 253abc Intermediate Keyboarding, Part 1-2-3 (1-1-1 unit)**
Further develops keyboarding speed, accuracy, and production rates on letters, reports, tables, forms, rough drafts, and other documents created in the business office.
Emphasis is on "mailable copy" including proper formatting, proofreading, and editing. **Prerequisites:** BUSOT 253a; BUSOT 52ac/252c with a grade of "C" OR 35 NWAM on a 5-minute typing test plus knowledge of proper document formatting. BUSOT 253b: BUSOT 253a with a grade of "C.", BUSOT 253c: BUSOT 253b with a grade of "C." **Recommended:** English Level 2 and knowledge of Word Perfect. **Hours:** (90) 5 hours, for 6 weeks per part, individualized instruction and supervised lab. Open entry/open exit. CCS: Occupational Education. Not Transferable: Associate Degree only.

**BUSOT 255 Keyboard Skill Building**
(0.5 unit)
Individualized instruction designed to increase or rebuild typing speed. **Prerequisite:** Minimum typing placement score of 30 NWAM. **Hours:** (30) 30 hours by arrangement in supervised lab for 6 weeks. Open entry/open exit. **Repeat:** 1. CCS: Occupational Education. Not Transferable: Associate Degree only.

**BUSOT 256 Spelling (1.5 units)**
Reviews, illustrates, and applies the basic spelling rules necessary to become a competent speller. **Prerequisite:** BUSOT 252a. **Recommended:** Reading Level 1, English Level 2. **Hours:** (27) 3 hours individualized instruction and supervised lab for 9 weeks. Open entry/open exit. CCS: Occupational Education. Not Transferable: Associate Degree only.

**BUSOT 257 Filing (1.5 units)**
Fundamentals, rules and procedures common to basic systems of filing. Filing equipment and supplies are used to provide instruction and practice in alphabetic, numeric, geographic, and subject filing. **Hours:** (27) 3 hours individualized instruction and supervised lab for 9 weeks. Open entry/open exit. CCS: Occupational Education. Not Transferable: Associate Degree only.

**BUSOT 258 Business English (3 units)**
Basic English usage including punctuation, capitalization, number usage, plurals, possessives, and grammar. **Recommended:** BUSOT 52ac/252c or one year of high school typing. English Level 2 eligibility, Reading Level 1. **Hours:** (54) 3 hours individualized instruction and supervised lab. Open entry/open exit. CCS: Occupational Education. Not Transferable: Associate Degree only. **Note:** Not open to students with credit in BUSOT 75.

**BUSOT 280 Machine Transcription**
(1.5 units)
Designed to develop skill in operating transcribing machines. Practice will be given in transcribing letters, memoranda, and manuscripts from various areas of business and government. Emphasizes English usage, punctuation and spelling techniques. **Prerequisites:** Keyboarding speed of 40 NWAM; BUSOT 75/275 with a grade of "C." **Recommended:** English Level 1 or evaluation by instructor. **Hours:** (27) 3 hours individualized instruction and supervised lab for 9 weeks. Open entry/open exit. CCS: Occupational Education. Not Transferable: Associate Degree only.

**BUSOT 281 Beginning Gregg Shorthand Theory**
(3 units)
Beginning study of Gregg Shorthand theory with dictation and transcription practice. **Prerequisite:** Minimum typing speed of 30 WAM accurately. **Recommended:** English Level 2, Reading Level 1. **Hours:** (90) 5 hours individualized instruction and supervised lab. Open entry/open exit. CCS: Occupational Education. Not Transferable: Associate Degree only.

**BUSOT 282 Gregg Shorthand Dictation and Transcription**
(3 units)
A review of Gregg shorthand theory with practice in dictation and transcription. Dictation speeds range from 50-80 words a minute. Grammar, punctuation, spelling and business vocabulary will be stressed. Dictation will be taken from specially prepared tapes designed to improve the student's shorthand skill. **Prerequisites:** BUSOT 281 with a grade of "C" or ability to transcribe materials dictated at 50 words a minute with 95 percent accuracy and type at least 30 WAM accurately. **Recommended:**
BUSINESS EDUCATION

English Level 2, Reading Level 1. Hours: (90) 5 hours individualized instruction and supervised lab. Open entry/open exit. CCS: Occupational Education. Not Transferable: Associate Degree only.

BUSINESS REAL ESTATE
Credit limitations may apply. For specific information see a counselor.

BUSRE 39 Principles of Real Estate (3 units)
Introduction to the many fields of real estate activity in California. Basic information about the ownership, use and enjoyment of land. Furnishes the proper foundation including the language of real estate transactions for anyone interested in a real estate career. Satisfies partial educational requirement of state sales and broker’s license. Recommended: Reading Level 1. Hours: (54) 3 lect/disc. CCS: Occupational Education. Transferable: CSU and private colleges. Note: Formerly REST 39.

BUSRE 55 Escrow Procedures I (3 units)
The principles and methods of handling escrows involving title to land, sale of personal property and all other types of escrows ordinarily handled in an escrow office. Includes a study of the various forms and practices used in the drawing of the escrow instructions and the buyers’ and sellers’ closing statements. Also considers the duties of the escrow officers. Recommended: Reading Level 1. Hours: (54) 3 lect/disc. Field trips required. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly R EST 55.

BUSRE 56 Escrow Procedures II (3 units)
The student will learn the more unusual and difficult types of real estate escrows, with evaluation of solutions to problems. The case problem method of teaching will be used extensively. Prerequisite: BUSRE 55. Recommended: Reading Level 1. Hours: (54) 3 lect/disc. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly R EST 56.

BUSRE 57 Property Management (3 units)
Introduces property management as a specialized activity that offers services to property owners. Contains current, specific information on the real estate market, inflation, and government activities. Detailed emphasis is given to the management of residential property, condominiums, office buildings, and shopping centers. Satisfies partial requirement of State sales and broker license. Recommended: Reading Level 1. Hours: (54) 3 lect. Field trips required. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly REST 57.

BUSRE 60 Legal Aspects of Real Estate (3 units)
A study of California real estate law, including rights incident to property ownership and management, agency, contracts and application to real estate transfer, conveying, probate proceedings, trust deeds and foreclosures, as well as recent legislation governing real estate transactions. Satisfies partial educational requirement of State broker’s examination. Recommended: BUSRE 39. Hours: (54) 3 lect/disc. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly REST 60.

BUSRE 61 Real Estate Economics (3 units)
Advanced course dealing with the nature and classification of land; business fluctuations and their relationship with real estate cycles; residential and commercial market trends; rural property and special purpose trends; economic factors affecting the development of property, construction and subdivision. Satisfies partial education requirement for State Broker’s Examination. Recommended: BUSRE 39. Hours: (54) 3 lect/disc. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly R EST 61.

BUSRE 62 Real Estate Finance (3 units)
Practical study and analysis of real estate financing, with actual cases illustrating lending policies, problems, risks involved in financing transactions in residential,
apartment, commercial, and special purpose properties. Satisfies partial educational requirement for State Broker's Examination.

**Recommended:** BUSRE 39. **Hours:** (54) 3 lect/disc. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly R EST 62.

**BUSRE 63 Real Estate Appraisal (3 units)**
Principles and basic fundamentals of real estate appraisal pertaining primarily to single-family and small multiple dwellings. Explains the appraisal process and the different approaches, methods, and techniques used to determine the value of various types of property. Satisfies partial educational requirement for State Broker’s Examination. **Recommended:** BUSRE 39. **Hours:** (54) 3 lect/disc. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly R EST 63.

**BUSRE 64 Real Estate Practice (3 units)**
Basic elements of day-to-day real estate sales and brokerage practice, primarily for holders of real estate licenses as salesmen and brokers. Topics include listing, prospecting, advertising, financing, sales techniques, escrow and ethics. Satisfies partial educational requirement for State Broker’s Examination. **Recommended:** Reading Level 1, real estate license or BUSRE 39. **Hours:** (54) 3 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly R EST 64.

**BUSRE 65 Real Estate Investment and Taxation (3 units)**
Principles and practical applications of real estate investment and tax analysis. Basic fundamentals relevant to students interested in learning real estate investment techniques. Real estate form and cases are used to aid in solving problems. **Recommended:** Some previous knowledge of taxes and/or evaluation by instructor, one year of accounting. **BUSRE 39, BUSRE 60, BUSRE 64. Hours:** (54) 3 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly R EST 65.

**BUSRE 68 Advanced Real Estate Appraisal (3 units)**
Principles of appraisal, the appraisal process, features of appraisal, property considerations, appraisal techniques and professional standards of appraisers. Actual appraisal of a local apartment complex illustrating all of the factors involved in the appraisal process. Satisfies partial educational requirement of State Brokers Examination. **Prerequisite:** BUSRE 63 with a grade of “C.” **Hours:** (54) 3 lect. Field trips required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly R EST 68.

**BUSRE 70 Topics in Real Estate (1 unit)**
Workshop and seminar related to special topics of interest and concern to the real estate industry. Features panels of specialists or individual speakers. **Recommended:** Reading Level 1. **Hours:** (18) 18 hours per unit. **Repeat:** as indicated. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly R EST 70.

**BUSRE 70a Salesperson/Broker Prelicense Preparation — Repeat: 3.**

**BUSRE 70b Financing Issues — Repeat: 3.**

**BUSRE 70c Investment — Repeat: 3.**

**BUSRE 70d Real Estate Legal Issues — Repeat: 3.**

**BUSRE 70e Real Estate Industry Analysis — Repeat: 3.**

**BUSRE 266 Real Estate Mathematics (2 units)**
Development of skill in solving real estate quantitative problems with emphasis on commissions and selling price, profit and loss, principal and interest payments, points, property and transfer taxes, insurance, ratio and scale, prorations, area and volume measurements and property descriptions. **Recommended:** Reading Level 1, MATH 50 or equivalent. **Hours:** (54) 3 individualized instruction and supervised lab. Open entry/open exit. **CCS:** Occupational Education.
BUSINESS SMALL BUSINESS

BUSSB 54 How to Start Your Own Small Business (1.5 units)
A basic "how-to" course designed for those men and women who some day may go into business for themselves or manage a small business. Also designed for those who are already in business for themselves but wish to strengthen their entrepreneurial skills. Topics include advantages and disadvantages of going into business for oneself; how to value a business opportunity; writing a business plan, marketing and financial controls; legal and insurance aspects of small business management and ownership. Satisfies one of the requirements for a certificate from the U.S. Small Business Administration. Recommended: Reading Level 1. Hours: (27) 3 lect/disc for 9 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly SM BS 54.

BUSSB 55 Financing a Small Business (0.5 unit)
Designed to provide practical knowledge of how to set up internal financial systems to provide small business control and to supply financial information to locate and obtain appropriate forms of capital and/or debt if needed. Satisfies one of the requirements for a certificate from the U.S. Small Business Administration. Recommended: Reading Level 1. Hours: (9) 3 lect/disc for 3 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly SM BS 55.

BUSSB 56 Marketing a Small Business (1 unit)
Designed to provide an understanding of the importance of marketing in the success of a small business. Provides a close examination of elements in a marketing plan. Reviews the components of the marketing mix—product, price, promotion, distribution, and people as they relate to the overall business strategy. Marketing principles discussed are applicable to retail, service, and wholesale businesses and to professionals. Satisfies one of the requirements for a certificate from the U.S. Small Business Administration. Recommended: Reading Level 1. Hours: (18) 3 lect/disc for 6 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly SM BS 56.

BUSSB 60 How to Use a Bookkeeping System (2 units)
Accounting systems, analyzing transactions into credit and debit, journalize and post business transactions. Includes adjusting entries on a worksheet and complete end-of-fiscal-period work for a service business organized as a proprietorship, a merchandising business organized as a partnership, and a merchandising business organized as a corporation. Co-sponsored by the U.S. Small Business Administration. Recommended: Reading Level 1. Hours: (36) 3 lect/disc for 12 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly SM BS 60.

BUSSB 71 How to Project and Improve Cash Flow (0.5 unit)
How cash is tracked through the business to promote cash balance at specific intervals. Co-sponsored by the U.S. Small Business Administration. Recommended: Reading Level 1. Hours: (9) 3 lect/disc for 3 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly SM BS 71.

BUSSB 72 Understanding Taxes (0.5 unit)
Tax responsibilities and effective record keeping for tax returns including the forms used at federal and state levels. Co-sponsored by the U.S. Small Business Administration. Recommended: Reading Level 1. Hours: (9) 3 lect/disc for 3 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly SM BS 72.

BUSSB 73 How to Establish Your Advertising Budget (0.5 unit)
How much advertising should cost and how that amount should be allocated. Co-sponsored by the U.S. Small Business
BUSINESS EDUCATION

Administration. **Recommended:** Reading Level 1. **Hours:** (9) 3 lect/disc for 3 weeks. CCS: Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly SM BS 73.

**BUSSB 74 How to Manage Credit and Collections (0.5 unit)**
How to manage customer credit and collection policies and procedures. Co-sponsored by the U.S. Small Business Administration. **Recommended:** Reading Level 1. **Hours:** (9) 3 lect/disc for 3 weeks. CCS: Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly SM BS 74.
Communications

Journalism
Speech
The Communications Department offers courses which provide lower division training for Journalism, and Speech majors who expect to transfer at the end of their sophomore year. Students should be aware that American Sign Language (formerly Special Education) is now listed in Foreign Language.

ASSOCIATE DEGREE PROGRAMS
Students expecting to transfer to an upper division institution with a major in Journalism or Speech must comply with the requirements as shown in the catalog under Graduation Requirements and should consult the catalog of the college or university of their choice for required and/or recommended courses. Counselors/advisors will assist the student in planning for an Associate Degree.

JOURNALISM
Designed to provide training for entry into newspaper and magazine journalism and photojournalism.
Minimum units required in related disciplines: 20

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<tr>
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<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>JRNL 1</td>
<td>Survey of the Mass Media</td>
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<tr>
<td>JRNL 2</td>
<td>Beginning Reporting</td>
<td>3.0</td>
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<td>JRNL 15</td>
<td>Press Photography</td>
<td>3.0</td>
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<td>JRNL 27a or</td>
<td>Newspaper Production</td>
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<td>JRNL 27e</td>
<td>Photography Lab for Campus</td>
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<tr>
<td>SPCH 1 or</td>
<td>Speech Communication</td>
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<td>SPCH 2</td>
<td>Interpersonal Communication</td>
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<tr>
<td>ENGL 1</td>
<td>Introductory Composition</td>
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SPEECH
Designed to provide training in basic oral skills in formal and informal situations.
Minimum units required in related disciplines: 19

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<tr>
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<tbody>
<tr>
<td>SPCH 1</td>
<td>Speech Communication</td>
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<td>SPCH 2</td>
<td>Interpersonal Communication</td>
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<td>SPCH 5</td>
<td>Rhetoric and Argumentation</td>
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<td>SPCH 18</td>
<td>Voice and Diction</td>
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<td>SPCH 27</td>
<td>Intercollegiate Speech Competition</td>
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<td>SPCH 21 or</td>
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<td>SPCH 22 or</td>
<td>Reader’s Theatre</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 35</td>
<td>Children’s Literature and Storytelling</td>
<td>3.0</td>
</tr>
<tr>
<td>SPCH 24a</td>
<td>Behavior Styles in Communication</td>
<td>1.5</td>
</tr>
<tr>
<td>SPCH 24b</td>
<td>Situational Communication</td>
<td>1.5</td>
</tr>
</tbody>
</table>

COURSE DESCRIPTIONS
The following abbreviations are commonly used in the course descriptions: lect lecture; lab laboratory; demo demonstration; Repeat repeatability (see policy on course repetition); CCS Course Classification System. Hours given in parentheses are total hours for the course. Hours lecture, lab, etc., are hours required per week usually. Prerequisites are expressed as minimum requirements. See page 47 for a complete explanation. (CSU) indicates transferable to California State Universities; (UC) indicates Transferable to University of California.

COMMUNICATIONS
CMMN 248 Cooperative Work Experience Education (1–8 units, limit 16 units)
See W EXP 248 description.

CMMN 249 Cooperative Work Experience Education (1–4 units, limit 16 units)
See W EXP 249 description.

JOURNALISM
Credit limitations may apply. For specific information see a counselor.

JRNL 1 Survey of the Mass Media (3 units)
Study of mass media and media technology as they apply to society. Includes study of media functions, responsibilities and practices, as well as a study of media history, development, influences on society and potential for the future. Designed to increase student awareness of the impact of mass media in shaping society, as well as make them better consumers of mass media persuasion. Recommended: English Level 1, Reading Level 1. Hours: (54) 3 lect/disc. Field trips required. CCS: Occupational Education. Transferable: UC, CSU and private colleges. (CAN JOUR 4)

JRNL 2 Beginning Reporting (3 units)
Introduction to journalism through the study of information gathering and reporting techniques. Concentration on research, investigation, interviewing, reporting and writing, demonstrated by mastering basic writing skills applicable in the mass media. Emphasizes news, feature, sports and
COMMUNICATIONS

persuasion writing. Recommended: English Level 1, Reading Level 1. Hours: (54) 3 lect/disc. Field trips required. CCS: Occupational Education. Transferable: UC, CSU and private colleges. (CAN JOUR 2)

JRNL 4 Introduction to Public Relations (3 units)
An introduction to public relations in today's society. Includes a survey of the origins of public relations and a study of the definitions, processes, and audiences of public relations. Specifics will include public relations in businesses, as well as associations, volunteer agencies and educational institutions. Includes how to write, prepare and submit release to video/audio and print media. Recommended: JRNL 2, Reading Level 1. Hours: (54) 3 lect/disc. Field trips required. CCS: Occupational Education. Transferable: CSU and private colleges.

JRNL 15 Press Photography (3 units)
Study and application of photography as applied to journalism. Practical problems in photo-journalism for news reporting, sports publicity, feature articles and public relations; emphasizes the use of press camera, together with practice in pertinent darkroom techniques. Emphasizes photography for publication. Recommended: English Level 1, Reading Level 1. Hours: (90) 2 lect/disc, 3 supervised lab. CCS: Occupational Education. Transferable: CSU and private colleges.

JRNL 26 Publication Management (1 unit)
Discusses with the publication advisor(s) content planning and evaluation, art, page, design, ethics and policy. Designed for editors of the campus newspaper and magazine. Prerequisite: JRNL 2. Recommended: Concurrent enrollment in JRNL 27a. Hours: (18) 1 lect. Repeat: 3. CCS: Occupational Education. Transferable: CSU and private colleges.

JRNL 27a Newspaper Production (2 units)
Production practicum for the college weekly newspaper offering experience in reporting, headline writing, copy editing, proof reading, layout procedures and computer use. All students on the newspaper major staff should be enrolled. Recommended: JRNL 2. Hours: (72) 1 lect, 3 lab. Repeat: 3. CCS: Occupational Education. Transferable: CSU and private colleges.

JRNL 27e Photography Laboratory for Campus Publications (2 units)
Production practicum for student publications offering experience in taking photographs, editing and sizing, and photo essay design. Qualified student work will be published in student publications. Recommended: JRNL 15, English Level 1, Reading Level 1. Hours: (72) 1 lect, 3 lab. Field trips required. Repeat: 3. CCS: Occupational Education. Transferable: CSU and private colleges.

JRNL 52 Multi-Cultural Media Workshop (3 units)
Extensive introduction to various aspects of media, with specific concentration on newspaper journalism. Open to high school juniors and seniors who qualify for concurrent enrollment. Recommended: English Level 1, Reading Level 1. Hours: (99) 17.5 lect, 32 lab for 2 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Offered in summer only.

SPEECH
Credit limitations may apply. For specific information see a counselor.

SPCH 1 Speech Communication (3 units)
Instruction in the composition, presentation and evaluation of original speeches and critical assessment of other communication events. Emphasizes topic selection, research, organization, development, delivery, audience analysis and critical analysis of persuasive communication. Recommended: English Level 1, Reading Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN SPCH 4)

SPCH 2 Interpersonal Communication (3 units)
Introduction to all aspects of the communication process, including intra and interpersonal communication, as well as public speaking. Emphasizes an understanding of
COMMUNICATIONS

communication in everyday life in conjunction with a knowledge of how to present ideas, thoughts and feelings. Recommended: English Level 1, Reading Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges.

SPCH 3 Business Communications (3 units)
An introduction to organizational communication. Instruction in group communication, listening, conflict resolution, leadership, employee phases and interviewing. Emphasizes understanding of communication in the work place and related group processes. Recommended: English Level 1, Reading Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges. Note: Not open to students with credit in BUS 3.

SPCH 5 Rhetoric and Argumentation (3 units)
Theoretical and practical aspects of argumentation (both general and legal) and public debate. Emphasis is on composition, presentation and evaluation of speeches of argumentation and debate, research, structuring arguments, evaluating argumentation, analysis, refutation and rebuttal. Recommended: English Level 1, Reading Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN SPCH 6)

SPCH 18 Voice and Diction (3 units)
Instruction in developing acceptable standards of voice production, emphasizing an understanding of the basic speech mechanism as related to respiration, phonation, resonation, and articulation. Recommended: English Level 1, Reading Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

SPCH 21 Oral Interpretation (3 units)
Study of the theoretical and technical aspects involved in the selection, analysis, and oral performance of literature. Includes participation in various types of performance exercises including presentation of prose, poetry, drama and group ensemble. Recommended: English Level 1, Reading Level 1. Hours: (54) 3 lect/disc. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

SPCH 24a Behavior Styles in Communication (1.5 units)
Instruction in styles of communication which produce both desirable and undesirable results. Emphasizes the communication process, ineffective communication styles (aggressive, passive) and resultant failures and effective communication styles (assertive, direct) and resultant successes. Recommended: English Level 1, Reading Level 1. Hours: (27) 3 lect/disc for 9 weeks. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges.

SPCH 24b Situational Communication (1.5 units)
Instruction in creating positive communication styles in emotionally charged situations. Emphasizes communication situations in which anxiety, guilt, anger, criticism and conflict tend to disrupt effective styles of communication. Vocational, professional and personal setting. Analyzes vocational, professional and personal settings. Prerequisite: SPCH 24a. Recommended: English Level 1, Reading Level 1. Hours: (27) 3 lect/disc for 9 weeks. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges.

SPCH 25 Effective Communication in Leadership (1.5 units)
Instruction in both the theoretical and practical aspects of the relationship between leadership, supervision and effective communication. Emphasizes assessment of leadership effectiveness, personality variables, interaction variables, improving
the communication climate, improving group processes, improving organizational meetings and improving performance appraisal interviews. **Recommended:** English Level 1, Reading Level 1. **Hours:** (27) 3 lect/disc for 9 weeks. CCS: Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

**SPCH 27 Intercollegiate Speech Competition Preparation (1–2 units)**
Training in various speech forms for forensic and community speaking. Intensive discussion and practice in prepared and limited preparation events including humorous, oral interpretation, readers’ theatre, duet interpretation and communication analysis. **Recommended:** English Level 1, Reading Level 1. **Hours:** (54–108) 1 unit: 3 lab; 2 units: 6 lab. Field trips required. Repeat: 3. CCS: Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

**SPCH 27L Intercollegiate Speech Competition Laboratory (0.5–3 units)**
Participation in intercollegiate speech competitions and community speaking situations. Specialization in debate, humorous, oral interpretation, readers’ theatre, duet interpretation, persuasive, impromptu, extemporaneous, or communication analysis required. **Recommended:** English Level 1, Reading Level 1. **Hours:** (27–162) 0.5 unit: 1.5 lab; 1 unit: 3 lab; 1.5 units: 4.5 lab; 2 units: 6 lab; 2.5 units: 7.5 lab; 3 units: 9 lab. Field trip required. Repeat: 3. CCS: Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

**SPCH 31a–31b–31c–31d Persuasion in a Democratic Society (1.5–1.5–1.5–1.5 units)**
**Recommended:** English Level 1, Reading Level 1. **Hours:** (27 each) Each 3 lect/disc for 9 weeks. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**SPCH 31a Freedom of Expression**
Instruction in the analysis and evaluation of constitutional guarantees of freedom of expression. Instruction in the historical development of freedom of expression, obscenity, legal liabilities. Emphasizes freedom of expression in radio, television and politics.

**SPCH 31b Freedom of Speech**
Instruction in the analysis and evaluation of constitutional guarantees of freedom of speech. Instruction in the historical background, regulation of time, place and manner, legal protection of the speaker and free speech on college campuses. Emphasizes responsibilities involved in freedom of speech in contemporary American society.

**SPCH 31c The Rhetoric of Agitation**
Instruction in the techniques of agitation and revolution with emphasis on the rhetoric of conflict in both formal and informal discourse. Instruction in the values and dangers of agitation. Emphasizes the effect of agitation on decision making in a democratic society.

**SPCH 31d Interracial Communication**
Instruction in cultural conflict and confrontation. Instruction in basic communication problems within a multi-racial, multi-cultural society. Emphasizes face-to-face interracial difficulties.

**SPCH 51 General Speech (3 units)**
Study of the basic concepts of oral communication, especially as they relate to career education. Emphasizes those aspects of oral communication which will most frequently be used in a career setting. **Recommended:** English Level 2, Reading Level 2. **Hours:** (54) 3 lect/disc. CCS: Liberal Arts & Sciences. **Not Transferable:** Not degree applicable.

**SPEECH COURSES FOR ESL STUDENTS**

**ESL 21 Accent Improvement**
See Foreign Language.

**ESL 22 Group Discussion and Conversation**
See Foreign Language.

**ESL 71ab Basic Listening and Speaking I**
See Foreign Language.

**ESL 71cd Basic Listening and Speaking II**
See Foreign Language.
CERTIFICATES OF ACHIEVEMENT
These training programs are designed for those who prefer career specialization courses and the earliest possible opportunity for job placement. Students wishing greater in-depth preparation may continue toward more advanced courses, an Associate Degree or transfer to a four-year institution.

COMPUTER INFORMATION SYSTEMS CERTIFICATE
Designed for the student who plans to specialize in business computer applications. Upon completion of the following courses with at least a "C" grade in each course, a student will be awarded a Computer Information Systems Certificate of Achievement.

Minimum units in required discipline: 34

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 2</td>
<td>Introduction to Computer Information Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 5</td>
<td>Introduction to Microcomputer Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 10</td>
<td>Structured Program Design</td>
<td>1.0</td>
</tr>
<tr>
<td>CS 16</td>
<td>COBOL Programming Language</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 18</td>
<td>Introduction to Programming with RPGII</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 26</td>
<td>Advanced Programming in COBOL</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 34</td>
<td>Business Database Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 36</td>
<td>Systems Analysis and Design</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 76</td>
<td>Introduction to C.A.S.E.</td>
<td>1.0</td>
</tr>
<tr>
<td>BUS A 1a</td>
<td>Financial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS A 1b</td>
<td>Managerial Accounting</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Elective Minimum of 3 Units

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 11</td>
<td>Introduction to Programming with Pascal</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 12</td>
<td>Introduction to Programming with BASIC</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 25</td>
<td>Introduction to Programming with C</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 27</td>
<td>Introduction to Assembly Language</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 32</td>
<td>Programming in Windows Using Visual BASIC</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS A 20</td>
<td>Survey of the Principles of Business and Industry</td>
<td>3.0</td>
</tr>
</tbody>
</table>

ASSOCIATE DEGREE PROGRAMS
Students are encouraged to continue their training and education beyond the Certificate of Achievement by taking additional technical-related courses and general education courses which may lead to an Associate in Science or Associate in Arts Degree.

Students must comply with the requirements as shown in the catalog under Graduation Requirements. Counselors/advisors will assist the student in planning for an associate degree.

For students wishing to transfer, the current catalog of the chosen college or university should be consulted for specific requirements. The college or university should be contacted to insure the transferability of the courses.
COMPUTER STUDIES

ASSOCIATE IN ARTS
COMPUTER INFORMATION SYSTEMS
Designed for the student who plans to transfer to California State University system or private colleges as a Computer Information Systems, Management Information Systems, or Data Processing major. Provides an emphasis in business computer applications with a broad educational background.

Minimum units required: 20 to 21

Required Courses
Course Number Title Units
CS 2 Introduction to Computer Information Systems 3.0
CS 11 or Introduction to Programming with Pascal 3.0
CS 12 Introduction to Programming with BASIC 3.0
CS 16 COBOL Programming Language 3.0
CS 21 or Advanced Programming with Pascal 3.0
CS 26 Advanced Programming in COBOL 3.0
CS 32 Programming in Windows Using Visual BASIC 3.0
BUSA 1a Financial Accounting 4.0
MATH 22 or Elementary Probability and Statistics 5.0
PSYCH 5 Elementary Statistics for the Behavioral and Social Sciences 4.0

Other Suggested Courses
Course Number Title Units
BUSA 1 b Managerial Accounting 4.0
BUSA 20 Survey of the Principles of Business and Industry 3.0
CS 5 Introduction to Microcomputer Applications 3.0
MATH 2 Basic Functions and Calculus for Business 4.0
ECON 1 Principles of Economics—Micro 3.0
ECON 2 Principles of Economics—Macro 3.0
MGMT 43 Principles of Organization and Management 3.0
MKTG 1 Fundamentals of Marketing 3.0

ASSOCIATE IN SCIENCE
COMPUTER INFORMATION SYSTEMS
Designed for the student who plans to specialize in business computer applications. The student will learn professional skills leading to employment and will gain a broad educational background. Provides a foundation for further studies in Computer Information Systems, Management Information Systems, or Data Processing.

Minimum units required: 34

Required Courses
Course Number Title Units
CS 2 Introduction to Computer Information Systems 3.0
CS 5 Introduction to Microcomputer Applications 3.0
CS 10 Structured Program Design 1.0
CS 16 COBOL Programming Language 3.0
CS 18 Introduction to Programming with RPG II 3.0
CS 26 Advanced Programming in COBOL 3.0
CS 34 Business Database Systems 3.0
CS 36 Systems Analysis and Design 3.0
CS 76 Introduction to C.A.S.E. 1.0
BUSA 1a Financial Accounting 4.0
BUSA 1 b Managerial Accounting 4.0

Elective Minimum of 3 Units
Course Number Title Units
CS 11 Introduction to Programming with Pascal 3.0
CS 12 Introduction to Programming with BASIC 3.0
CS 25 Introduction to Programming with C 3.0
CS 27 Introduction to Assembly Language 3.0
CS 32 Programming in Windows Using Visual BASIC 3.0
BUSA 20 Survey of the Principles of Business and Industry 3.0

Other Suggested Courses
Course Number Title Units
CS 5 Introduction to Microcomputer Applications 3.0
CS 19 Operating System Procedural Language 3.0
MATH 2 Basic Functions and Calculus for Business 4.0
ECON 1 Principles of Economics—Micro 3.0
ECON 2 Principles of Economics—Macro 3.0
BUSA 20 Survey of the Principles of Business and Industry 3.0
MGMT 43 Principles of Organization and Management 3.0
MKTG 1 Fundamentals of Marketing 3.0

COMPUTER SCIENCE
Designed for the student who plans to specialize in math, science, or engineering applications. Students will learn professional skills leading to employment and will gain a broad educational background. Provides a foundation for further studies in Computer Science.

(Continued next page)
Science. Students intending to transfer should take CS 11.

Minimum units required - 33

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 2</td>
<td>Introduction to Computer Information Systems</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>CS 10</td>
<td>Structured Program Design</td>
<td>1.0</td>
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</tr>
<tr>
<td>MATH 6a</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
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</tr>
<tr>
<td>MATH 6b</td>
<td>Analytic Geometry and Calculus II</td>
<td>4.0</td>
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<tr>
<td>MATH 6c</td>
<td>Calculus III</td>
<td>4.0</td>
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<tr>
<td>CS 11 or CS 21</td>
<td>Introduction to Programming with Pascal</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>MATH 6d</td>
<td>Ordinary Differential Equations</td>
<td>3.0</td>
<td></td>
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<tr>
<td>MATH 6e</td>
<td>Elementary Linear Algebra</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>MATH 22</td>
<td>Elementary Probability and Statistics</td>
<td>5.0</td>
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</tbody>
</table>

CS 11 and CS 21 are recommended for the professional degree and MATH 6d and MATH 6e are required for the transfer degree.

Elective Minimum of 6 Units

<table>
<thead>
<tr>
<th>Elective Courses</th>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CS 11</td>
<td>Introduction to Programming with Pascal</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>CS 12</td>
<td>Introduction to Programming with BASIC</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>CS 13</td>
<td>Introduction to Computer Programming with FORTRAN</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>CS 21</td>
<td>Advanced Programming with Pascal</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>CS 25</td>
<td>Introduction to Programming with C</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>CS 27</td>
<td>Introduction to Assembly Language</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>CS 32</td>
<td>Programming in Windows Using Visual BASIC</td>
<td>3.0</td>
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</table>

Other Suggested Courses

<table>
<thead>
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<th>Other Suggested Courses</th>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>PHYS 2a</td>
<td>General Physics—Mechanics and Heat</td>
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</tr>
<tr>
<td>PHYS 2b</td>
<td>General Physics—Sound, Light</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>PHIL 7</td>
<td>Electricity, Magnetism, Modern Physics</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>ELET 1</td>
<td>Introduction to Logic</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>ELET 1</td>
<td>Basic Electricity</td>
<td>4.0</td>
<td></td>
</tr>
</tbody>
</table>

COURSE DESCRIPTIONS

The following abbreviations are commonly used in the course descriptions: lect lecture; lab laboratory; demo demonstration; Repeat repeatability (see policy on course repetition); CCS Course Classification System. Hours given in parentheses are total hours for the course. Hours lecture, lab, etc., are hours required per week usually. Prerequisites are expressed as minimum requirements. See page 47 for a complete explanation. (CSU) indicates transferable to California State Universities; (UC) indicates Transferable to University of California.

COMPUTER STUDIES

Credit limitations may apply. For specific information see a counselor.

CS 2 Introduction to Computer Information Systems (3 units)

Introduction to the concept of electronic data processing and the use of the computer systems as problem-solving tools in business, economics, mathematics, and the sciences. Includes the history of data processing, computer system components, and sequential and direct-access processing. Database management systems, teleprocessing, and distributed processing are covered. An overview of personal computer applications software (word processing, electronic spreadsheets, and personal database management systems) are also included. Prerequisite: Minimum one year of high school algebra or MATH A (may be taken concurrently) or evaluation by instructor. Hours: (81) 3 lect, 1.5 lab by arrangement. CCS: Occupational Education. Transferable: UC, CSU and private colleges. Note: Formerly CIS 1.

CS 5 Introduction to Microcomputer Applications (3 units)

Intended for home users and business people who desire a working knowledge of personal computer hardware and software. Special emphasis on software that is most widely used in Kern County as well as the nation. Mainly focuses on business and home applications of personal computers. Hands-
on training with word processing, spreadsheets, database management systems and the necessary operating system fundamentals to use the listed application software. Recommended: Reading Level 1. Hours: (81) 3 lect, 1.5 lab by arrangement. CCS: Occupational Education. Transferable: CSU and private colleges. Note: Formerly CIS 25.

CS 10 Structured Program Design (1 unit)

CS 11 Introduction to Programming with Pascal (3 units)
Fundamentals of structured programming and operating computer systems in Pascal. Develops structured programming and problem solving skills and provides experience in using the computer in a variety of applications. Prerequisite: MATH D or two years of high school algebra or equivalent or evaluation by instructor. Recommended: Reading Level 1. Hours: (108) 3 lect, 3 lab by arrangement. CCS: Occupational Education. Transferable: UC, CSU and private colleges. Note: Formerly COM S 10. (CAN CSCI 12)

CS 12 Introduction to Programming with BASIC (3 units)
Fundamentals of programming and operating computer systems in BASIC (Beginner's All-purpose Symbolic Instruction Code). Develops skills in computer programming and general problem-solving tools in business, mathematics, physical sciences, social sciences, and other disciplines. Prerequisite: MATH D or two years of high school algebra or equivalent. Recommended: CS 2 or CS 10 (may be taken concurrently), Reading Level 1. Hours: (108) 3 lect, 3 lab by arrangement. CCS: Occupational Education. Transferable: UC, CSU and private colleges. Note: Formerly COM S 5.

CS 13 Introduction to Computer Programming with FORTRAN (3 units)
Fundamentals of programming and operating computer systems using the FORTRAN 77 language. Develops skills and provides experience in using the computer as a problem-solving tool in mathematics, life sciences, business, and social sciences. Assigned computer exercises will require approximately three hours per week with a computer. Prerequisite: MATH D or evaluation by instructor. Hours: (108) 3 lect, 3 lab by arrangement. CCS: Occupational Education. Transferable: UC, CSU and private colleges. (CAN CSCI 4) Note: Formerly COM S 18.

CS 16 COBOL Programming Language (3 units)
The fundamentals of the COBOL programming language. Writing structured COBOL programs to solve various types of business problems. Prerequisite: CS 2 or evaluation by instructor. Recommended: Reading Level 1. Hours: (108) 3 lect, 3 lab by arrangement. CCS: Occupational Education. Transferable: UC, CSU and private colleges. Note: Formerly CIS 4. (CAN CSCI 8)

CS 18 Introduction to Programming with RPGII (3 units)
The fundamentals of the RPGII programming language, the basics of RPGII program logic and coding, and programming for various business applications. Prerequisite: CS 2 or evaluation by instructor. Recommended: Reading Level 1. Hours: (90) 3 lect, 2 lab by arrangement. CCS: Occupational Education. Transferable: CSU and private colleges. Note: Formerly CIS 6.

CS 19 Operating System Procedural Language (3 units)
Writing procedures using the Operation Control Language (OCL) of the IBM System/36 and use of system utilities such as the Data File Utility, the Screen Design Aid, and the system Sort. Covers the fundamentals necessary to effectively use and operate a medium-sized computer in a business setting. Prerequisite: Satisfactory completion of a high-level language course or evaluation by
instructor. Hours: (90) 3 lect, 2 lab. CCS: Occupational Education. **Transferable:** CSU and private colleges. **Note:** Formerly CIS 20.

CS 21 Advanced Programming with Pascal
(3 units)
Advanced techniques of programming in the structured problem-solving language Pascal. Emphasis is on developing advanced skills in algorithm building and understanding data structures in a variety of applications. **Prerequisite:** CS 11 or evaluation by instructor. **Recommended:** Reading Level 1. **Hours:** (108) 3 lect, 3 lab by arrangement. CCS: Occupational Education. **Transferable:** UC, CSU and private colleges. **Note:** Formerly COM S 20.

CS 25 Introduction to Programming with C
(3 units)
Fundamentals of structured programming and operating computer systems in C. Develops structured programming and problem-solving skills and provides experience in using the computer in a variety of applications. **Prerequisite:** Successful completion of a high-level programming language course, or an assembly language course or evaluation by instructor. **Recommended:** Reading Level 1. **Hours:** (108) 3 lect, 3 lab by arrangement. CCS: Occupational Education. **Transferable:** UC, CSU and private colleges. (CAN CSCI 16) **Note:** Formerly COM S 11.

CS 26 Advanced Programming in COBOL
(3 units)
Advanced applications, techniques, procedures, and language statements in COBOL. Development of skills required to write COBOL programs of professional quality. **Prerequisite:** CS 16 or evaluation by instructor. **Hours:** (108) 3 lect, 3 lab by arrangement. CCS: Occupational Education. **Transferable:** UC, CSU and private colleges. **Note:** Formerly CIS 14.

CS 27 Introduction to Assembly Language
(3 units)
Fundamentals of assembly language programming. Topics include binary, octal and hexadecimal arithmetic, data storage, bit manipulation, processor architecture and instruction set, system hardware, operating-system supervisory functions, program modularization through effective use of macros and procedures, use of assembler, linker, object-library manager, and debugger utilities, and I/O to/from the screen, keyboard and auxiliary storage. Emphasizes the development of libraries (macro and object) of commonly-used input/output routines. The primary machine for the course will vary; the major topics of the course are common to assembly-language programming on any processor, and in any environment. **Prerequisites:** MATH D or two years of high school algebra or equivalent, at least one course in high level computer language. **Recommended:** CS 2 or CS 10 (may be taken concurrently) Reading Level 1. **Hours:** (108) 3 lect, 3 lab by arrangement. CCS: Occupational Education. **Transferable:** UC, CSU and private colleges. (CAN CSCI 10) **Note:** Formerly COM S 7.

CS 32 Programming in Windows Using Visual BASIC
(3 units)
An introduction to creating Windows applications using the Visual BASIC programming language. The course will cover the fundamentals of event-driven programming in a graphical user interface environment. Students will write programs using Visual BASIC forms and properties, events, controls, built-in functions, procedures, graphics and animation. **Prerequisite:** A high-level programming language. **Hours:** (108) 3 lect, 3 lab by arrangement. CCS: Occupational Education. **Transferable:** CSU and private colleges.

CS 34 Business Database Systems (3 units)
The fundamentals of the use of relational and CODASYL model databases in a business environment. Emphasizes the use of SQL, IDMS, and dBASE III database formats. Distinguishing between the various data structures. Designing databases for both the relational and CODASYL models, as well as the fundamentals of writing business applications. **Prerequisites:** CS 2 and CS 16 or evaluation by instructor. **Hours:** (81) 3 lect, 1.5 lab by arrangement. CCS: Occupational Education. **Transferable:** CSU and private colleges. **Note:** Formerly CIS 22.
CS 36 Systems Analysis and Design
(3 units)
Tools and techniques involved in the analysis and design of computerized business systems. Investigative techniques such as interviewing, sampling, questionnaire design, cost-benefit analysis, project management tools, and evaluation of hardware, software and vendors; actual business systems. **Prerequisites:** CS 2 and a high-level programming language. **Recommended:** Reading Level 1. Hours: (72) 3 lect, 1 lab by arrangement. CCS: Occupational Education. **Transferable:** CSU and private colleges. **Note:** Formerly CIS 7.

CS 50a Introduction to the Microcomputer and MS DOS (1 unit)
An introduction to the microcomputer and its operating systems. Enables the student to use the disk operating system (DOS) on IBM and compatible microcomputers, including program and file capabilities, advanced features, many utilities and major applications, and provide a basis for computer literacy. Hours: (36) 3 lect, 3 lab by arrangement for 6 weeks. CCS: Occupational Education. **Transferable:** Associate Degree only. **Note:** Formerly CIS 52a.

CS 50b Intermediate DOS (1 unit)
A continuation of CS 50a. Hard disk management, subdirectories, paths, batch files, menus, backup strategies, protection and security, and optimizing the performance of the computer. Provides a foundation for setting up a computer in a small business environment. **Prerequisite:** CS 50a. Hours: (36) 3 lect, 3 lab by arrangement for 6 weeks. CCS: Occupational Education. **Transferable:** Associate Degree only. **Note:** Formerly CIS 52b.

CS 55a Introduction to WordPerfect (1 unit)
Use of the WordPerfect word processing system. Includes the command structure, entry to and exit from a processing session, file creation and change. Covers cutting and pasting, tables, print options and printing, and file handling options. Recommended: Some knowledge of microcomputer operations and typing skills. Hours: (36) 3 lect, 3 lab by arrangement for 6 weeks. CCS: Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly CIS 54a.

CS 55b Intermediate WordPerfect (1 unit)
The intermediate capabilities of the WordPerfect Word Processing microcomputer program. Working with the program and learning how to incorporate these features. **Prerequisite:** CS 55a or evaluation by instructor. **Recommended:** Reading Level 1. Hours: (36) 3 lect, 3 lab by arrangement for 6 weeks. CCS: Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly CIS 66a.

CS 55c Advanced WordPerfect (1 unit)
The desktop publishing and other advanced features of the WordPerfect word processing microcomputer program. The student will have the opportunity to work with the program and incorporate these features into his/her skill. **Prerequisite:** CS 55a/b or evaluation by instructor. Hours: (36) 3 lect, 3 lab by arrangement for 6 weeks. CCS: Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly CIS 66c.

CS 57a Introduction to Microsoft Word for Windows (1 unit)
Use of the Microsoft Word for Windows word processing application. Word Processing fundamentals such as creating, saving, and retrieving documents will be covered. Also included will be editing, formatting, proofing tools, and printing fundamentals.
COMPUTER STUDIES

Hours: (36) 3 lect, 3 lab by arrangement for 6 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly CIS 67a.

CS 60a Introduction to Lotus 1-2-3 (1 unit)
Introduces students to the use of the spreadsheet using the Lotus 1-2-3 program. The course includes instruction in spreadsheet fundamentals, setting up a spreadsheet, cell data entry and edit, formulas, menus, formats, and simple functions and graphs. Recommended: Some knowledge of microcomputer operation. Hours: (36) 3 lect, 3 lab by arrangement for 6 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly CIS 67a.

CS 60b Intermediate Lotus 1-2-3 (1 unit)
A continuation of CS 60a. Emphasizes the intermediate aspects of Lotus 1-2-3 including: more advanced formatting, functions and printing as well as database, enhanced graphics, and an introduction to simple macros and command language. Prerequisite: CS 60a or CS 62a or evaluation by instructor. Hours: (36) 3 lect, 3 lab by arrangement for 6 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly CIS 61a.

CS 60c Advanced Lotus 1-2-3 (1 unit)
Advanced topics of Lotus 1-2-3 continuing CS 60a and 60b. Emphasis is on building and troubleshooting advanced worksheets, using multiple worksheets, building and troubleshooting advanced databases and graphs, advanced functions and advanced macros. Stresses problem solving, spreadsheet design, macros and basic programming logic in Lotus. Prerequisite: CS 60b or evaluation by instructor. Hours: (36) 3 lect, 3 lab by arrangement for 6 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly CIS 61b.

CS 65a Introduction to dBase (1 unit)
Introduction to the use of the dBASE database management program to solve typical business problems. Includes creating and updating databases, use of assist and dot prompt, sorting and indexing, creating reports and labels, creating custom data entry screens, and the use of dBASE commands and programming language. Develops problem solving skills and provides experience in this widely-used data base programming environment. Recommended: Some knowledge of microcomputer operations, including DOS. Hours: (36) 3 lect, 3 lab by arrangement for 6 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly CIS 65a.

CS 65b Intermediate Spreadsheets with Excel (1 unit)
Intermediate aspects of Excel. Includes advanced formatting, functions, and printing. Also presents database, enhances charts, and an introduction to macros and multiple spreadsheets. Prerequisite: CS 60a or CS 62a or evaluation by instructor. Hours: (36) 3 lect, 3 lab by arrangement for 6 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly CIS 65b.

CS 65c Advanced Spreadsheets with Excel (1 unit)
Advanced Excel emphasizes building and troubleshooting advanced worksheets and using multiple worksheets. Also includes building and troubleshooting advanced databases and charts, advanced functions, and advanced macros. Prerequisite: CS 62b or evaluation by instructor. Hours: (36) 3 lect, 3 lab by arrangement for 6 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly CIS 65c.

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CS 62a Introduction to Spreadsheets with Excel (1 unit)
Introduces students to the use of the spreadsheet using the Excel spreadsheet program. Covers instruction in spreadsheet fundamentals, the use of a mouse, setting up a spreadsheet, cell data entry and edit, formulas. Excel menus, formats, and simple functions and graphs. Recommended: Some knowledge of microcomputer operations. Hours: (36) 3 lect, 3 lab by arrangement for 6 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only. Note: Formerly CIS 65a.
CS 65b Intermediate dBase (1 unit)
Fundamentals of programming in dBASE Language. Develops programming and problem-solving skills and provides additional experience in this widely-used database programming environment. Includes dBase programming, linking dBase files together, validation of data entry, and analyzing and debugging programs written by others. **Prerequisite:** CS 65a or evaluation by instructor. **Hours:** (36) 3 lect, 3 lab by arrangement for 6 weeks. CCS: Occupational Education. **Not Transferable:** Associate Degree only. Note: Formerly CIS 63b.

CS 65c Advanced dBase, Programming Concepts (1 unit)
Advanced dBASE, language programming concepts. Develops advanced problem solving skills and provides experience in this widely-used database programming environment. Includes top down programming, control structures, data query concepts, compilers, complex reports and documentation of dBase programs. **Prerequisite:** CS 65b or evaluation by instructor. **Hours:** (36) 3 lect, 3 lab by arrangement for 6 weeks. CCS: Occupational Education. **Not Transferable:** Associate Degree only. Note: Formerly CIS 63c.

CS 67a Introduction to Paradox for Windows (1 unit)
An introduction to the use of the Paradox for Windows database management program to solve typical business database problems. Includes creating and updating a database, sorting, querying and maintaining a database, creating and using indexes, and joining tables. Also includes the creation of custom data entry forms, validity checks and referential integrity, and the creation of reports. **Hours:** (36) 3 lect, 3 lab by arrangement for 6 weeks. CCS: Occupational Education. **Not Transferable:** Associate Degree only. Note: Formerly CIS 64a.

CS 68a Introduction to Microsoft Access (1 unit)
An introduction to the use of the Microsoft Access database management program to solve typical business database problems. Includes creating and updating a database, sorting, querying and maintaining a database, creating and using indexes, and joining tables. Also includes the creation of custom data entry forms, validity checks and referential integrity, and the creation of reports. **Hours:** (36) 3 lect, 3 lab by arrangement for 6 weeks. CCS: Occupational Education. **Not Transferable:** Associate Degree only.

CS 70a Introduction to Electronic Presentations with Microsoft Powerpoint (1 unit)
An introduction to the use of the Microsoft Powerpoint presentation package to create professional quality electronic presentations. The course will cover the basics of using Powerpoint as well as the basics of how to plan and build a presentation, making color and text choices, and adding graphics and other media. The course will also cover using Powerpoint to convert existing information such as word processing, and graphic data into a presentation. **Hours:** (36) 3 lect, 3 lab by arrangement for 6 weeks. CCS: Occupational Education. **Not Transferable:** Associate Degree only.

CS 72 Microcomputer Applications (0.5-1 unit)
Topics in series about Microcomputer Literacy will be offered on an occasional basis as the community need seems to indicate. Microcomputer application courses both for the home and office will offer hands-on experience with popular microcomputers. **Hours:** (18-36) 1.5-3 lect and 1.5-3 lab by arrangement for 6 weeks. CCS: Occupational Education. **Not Transferable:** Associate Degree only. Note: Formerly CIS 70.

CS 72a WordPerfect (0.5 unit)
Note: Formerly CIS 70a.

CS 72b Lotus 1-2-3 (0.5 unit)
Note: Formerly CIS 70b.

CS 75 Business Data Communication (3 units)
A comprehensive survey of the field of business data communications that specifically relates requirements, applications, and technology to the needs and concerns of the
business world. Topics include: introduction to data communications, local area networks, transmission protocols, micro to mainframe connectivity, remote operations, services, security and privacy, transmission techniques, electronic mail, file transfer, wide area networking, network management, hardware and software evaluation, installation of data communications hardware and software, and telecommunications regulations. **Prerequisite:** CS 2 or equivalent, or evaluation by instructor. **Hours:** (81) 3 lect, 1.5 lab by arrangement. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly CIS 55.

**CS 76 Introduction to C.A.S.E. (1 unit)**
An introduction to the concepts and use of C.A.S.E. (Computer Aided Systems Engineering) for information systems analysis and design. Includes an overview of C.A.S.E. concepts and fundamentals; and hands-on use of a C.A.S.E. program to design, describe, and draw data flow and entity relationship diagrams; design and prototype end-user interfaces; and maintain a project dictionary. **Recommended:** Previous or concurrent enrollment in CS 36, or evaluation by instructor. **Hours:** (18) 1 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly CIS 57.

**CS 248 Cooperative Work Experience Education (1-8 units, limit 16 units)**
See W EXP 248 description.

**CS 249 Cooperative Work Experience Education (1-4 units, limit 16 units)**
See W EXP 249 description.
English
Studies in English provide preparation for the professions, government service, and politics. Career opportunities in English include teaching, journalism, publishing, advertising, and copywriting.

Students seeking an Associate Degree must take a writing course, either English 1 or 1a, and may take a literature class in fulfillment of the humanities requirement. Students seeking a Baccalaureate Degree should take English 1a and may take English 1b and other literature courses in fulfillment of specific General Education requirements. Students planning to major in English should take English 1a and 1b and at least one of the following: English 5a and 5b, or English 20a and 20b, or English 30a and 30b. Students planning to transfer to the University of California should consider English 2. For specific information, students should consult the catalog of the school to which they intend to transfer.

ELIGIBILITY FOR COMPOSITION COURSES

Bakersfield College attempts to provide courses for all student abilities so students can be successful and advance toward educational objectives. Academic Development 68, English 60, 1, and 1a are sequential courses designed to develop proficiency in writing. ESL 3, 2, and 1 for speakers of other languages are parallel to the Academic Development and English courses. Eligibility for each of these courses depends on a student’s writing ability. To place students into appropriate composition course, the Assessment Center administers a combination objective/essay placement test, which students must complete prior to taking composition classes. Eligibility for ESL courses is determined by placement testing in the International Student Center.

Eligibility for specific courses at placement are as follows: students placed at level 1 on the assessment tests are eligible for English 1a; those at level 2 are eligible for English 1; those at level 3 are eligible for English 60; and those at level 4 are eligible for Academic Development 68 (see Academic Development department).

After being placed, students must pass the course for that level with a minimum grade of “C” before advancing to the next level. Students who do not meet eligibility requirements will be denied admission into composition courses unless they have obtained prior written authorization from a counselor.

ASSOCIATE IN ARTS DEGREE PROGRAM

General Education requirements, plus 18 units (minimum) required from each of the following categories:

Required courses: 7 units
Course Number Title Units
ENGL 1a Expository Composition 4.0
ENGL 1b Introduction to Types of Literature 3.0

Required courses: 11 units from the following of which no fewer than 6 units must be from survey courses.
Course Number Title Units
ENGL 5ab Survey of English Literature to 1900 3-3.0
ENGL 20ab Survey of World Literature 3-3.0
ENGL 30ab Survey of American Literature 3-3.0
ENGL 2 Advanced Composition and Critical Thinking 5.0
ENGL 10 Introduction to Shakespeare 3.0
ENGL 11 Modern Drama 3.0
ENGL 12 Modern Short Fiction 3.0
ENGL 23 Women in Literature 3.0
ENGL 27 The Bible as Literature 3.0
ENGL 28 Classical Mythology 3.0
ENGL 35 Children’s Literature and Storytelling 3.0
ENGL 41a Introduction to Creative Writing 3.0
COURSE DESCRIPTIONS
The following abbreviations are commonly used in the course descriptions: lect lecture; lab laboratory; demo demonstration; Repeat repeatability (see policy on course repetition); CCS Course Classification System. Hours given in parentheses are total hours for the course. Hours lecture, lab, etc., are hours required per week usually. Prerequisites are expressed as minimum requirements. See page 47 for a complete explanation. (CSU) indicates transferable to California State Universities; (UC) indicates Transferable to University of California.

ENGLISH
Credit limitations may apply. For specific information see a counselor.

ENGL 1 Introductory Composition (4 units)
Emphasizes the writing of expository and argumentative essays; also stresses the comprehension and analysis of readings. Satisfies the General Education requirement in written English for the AA and AS Degrees and prepares transfer students for ENGL 1a. Prerequisite: ENGL 60 with a grade of “C” or “CR” or English Level 2. Hours: (72) 4 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN ENGL 2)

ENGL 1a Expository Composition (4 units)
Expository writing and reading. Emphasizes the organization and development of expository essays, study of style, application of critical reading and thinking skills, and preparation of a research paper. Prerequisite: ENGL 1 or ESL 1 with a grade of “C” or English Level 1. Hours: (72) 4 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN ENGL 2)

ENGL 1b Introduction to Types of Literature (3 units)
An introductory course in literature, comprising critical analysis of notable works in prose fiction, drama and poetry, with emphasis on evaluating the logical relationship between form and content and on formulating criteria for artistic judgment. Continued instruction in the communication skills of writing, listening and discussing. Prerequisite: Eligibility for ENGL 1a. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN ENGL 4)

ENGL 2 Advanced Composition and Critical Thinking (5 units)
Expository writing, reading of expository and literary works; study of the most important ideas in great works in philosophy, natural science, literature, and the social and behavioral sciences; survey of methods of critical thinking and advanced composition. Prerequisite: ENGL 1a with a minimum grade of “C.” Hours: (90) 4 lect/disc plus 1 hour arranged. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN ENGL 2)

ENGL 5a-Sb Survey of English Literature to 1900 (3-3 units)
A historical survey of English literature, emphasizing critical reading of representative works from Beowulf to James Joyce. Usually includes a field trip to the Huntington Library (San Marino, CA) for firsthand observation of manuscripts and printed books important to the history of English literature. Required for students whose major or minor is English and recommended for students who desire to extend their knowledge of the literary tradition. Prerequisite: Satisfactory completion of ENGL 1 with a minimum grade of “C” or English Level 1. Recommended: ENGL 1b. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: Offered two out of every three years. (CAN ENGL SEQ B)

ENGL 10 Introduction to Shakespeare (3 units)
Interdisciplinary approach to Shakespeare’s work. Discussion and analysis of selected plays (tragedies, comedies, and histories) and the non-dramatic poetry. Content focuses on the historical, artistic, literary, theatrical, social, and moral influences of Renaissance England that contributed to Shakespeare’s breadth, artistic progress, and literary achievement. Prerequisite: Satisfactory completion of ENGL 1 with a minimum grade of “C” or English Level 1. Hours: (54) 3 lect. Field trips may be required. CCS:
Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: Not applicable for English majors at UC system. Offered fall semester only.

ENGL 11 Modern Drama (3 units)
An introductory course in modern drama, emphasizing critical analysis and providing a basis for appreciation of notable works of twentieth-century drama. Provides an overview of theatre in the twentieth century. Continued instruction in the skills of writing, discussing, listening, and viewing dramatic productions. Prerequisite: Satisfactory completion of ENGL 1 with a minimum grade of “C” or English Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: Offered occasionally.

ENGL 12 Modern Fiction (3 units)
Examines the development of modern fiction through a study of classic examples, with emphasis on the short novel and novel. Also examines trends in contemporary fiction through a study of short stories and novels, including the study of the elements of fiction and critical approaches to fiction. Prerequisite: Satisfactory completion of ENGL 1 with a minimum grade of “C” or English Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: Offered two out of every three years.

ENGL 20a–20b Survey of World Literature (3–3 units)
A chronological survey of world literature, focusing on but not limited to Western world literature. Prerequisite: Satisfactory completion of ENGL 1 with a minimum grade of “C” or English Level 1. Recommended: ENGL 1b. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: Offered two out of every three years.

ENGL 21 African-American Literature (3 units)
Major authors, their works, themes and movements in African-American literature in America from colonial times to the present.

Prerequisite: Satisfactory completion of ENGL 1 with a minimum grade of “C” or English Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

ENGL 23 Women in Literature (3 units)
Exploration of the roles of women in past and present times as revealed through short stories, novels, poetry, drama, essays, and analysis. Prerequisite: Satisfactory completion of ENGL 1 with a minimum grade of “C” or English Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: Offered two out of every three years.

ENGL 27 The Bible as Literature (3 units)
Poetry and prose of the Bible, especially of the Old Testament. Includes lecture, discussion, and dramatic readings. Prerequisite: Satisfactory completion of ENGL 1 with a minimum grade of “C” or English Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: Offered fall semesters.

ENGL 28 Classical Mythology (3 units)
A study of classical myth, saga, and local legend, primarily Greek and Roman. Includes Egyptian, Babylonian Norse and Celtic/Anglo Saxon. Relates classical myths to historical and modern culture. Prerequisite: Satisfactory completion of ENGL 1 with a minimum grade of “C” or English Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

ENGL 29 Science Fiction (3 units)
Through reading and discussion of novels and short stores, students will learn to recognize the themes of contemporary science fiction. Lectures will cover the history of the genre, focusing on developments since WW II. Some attention will be given to the related genres of fantasy and horror fiction as well as to science fiction films. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: Offered occasionally.
ENGL 30a–30b Survey of American Literature (3–3 units)
A study of the most notable American authors from the colonial period to the present with emphasis on the intrinsic value of the literature. Recommended as an elective for majors in the humanities, history or education. Prerequisite: Satisfactory completion of ENGL 1 with a minimum grade of “C” or English Level 1. Recommended: ENGL 1b. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: Offered two out of every three years.

ENGL 34 Introduction to Library Research (1 unit)
Familiarizes students with methods of research, a wide range of research materials, ways of evaluating the materials, and the preliminary steps in fitting the materials to a term paper topic and its thesis. Recommended: English Level 1 and concurrent enrollment in ENGL 1a. Hours: (18) 1 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

ENGL 35 Children’s Literature and Storytelling (3 units)
Selection, reading, evaluation, and discussion of literature for pre-school, elementary, and intermediate grades, plus a practicum in sharing of that literature through oral presentation. Prerequisite: Satisfactory completion of ENGL 1 with a minimum grade of “C” or English Level 1. Hours: (54) 3 lect/demo and field practice by arrangement. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges.

ENGL 41a–41b Introduction to Creative Writing (3–3 units)
Creative writing of poetry, short plays and prose forms. Emphasizes creativity and control of language, sound, imagery, and sense in poetry; character, plot, theme, and point of view in fiction and drama. Basics of submitting manuscripts to publishers. Recommended: Reading Level 1, English Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges.

ENGL 41c–41d Introduction to Creative Writing (2–2 units)
Creative writing of poetry, short plays and prose forms. Emphasizes creativity and control of language, sound, imagery, and sense in poetry; character, plot, theme, and point of view in fiction and drama. Basics of submitting manuscripts to publishers. Recommended: Reading Level 1, English Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges.

ENGL 55 Computer Assisted Writing (1 unit)
Introduces students to writing on microcomputers. Students learn to use word processing programs for prewriting, outlining, drafting, revising, and preparing college level reports, compositions, and term papers. Students work on assigned or personal writing projects. Recommended: English Level 3, Reading Level 1 and basic typing skills. Hours: (18) 1 lect. Repeat: 1. CCS: Precollege — discipline specific. Not Transferable: Not degree applicable. Note: Not open to students with credit in ENGL 255.

ENGL 60 Basic Writing Skills (4 units)
Review and application of fundamentals of standard English. Emphasizes sentence and paragraph writing. Practice in the writing process. Prerequisite: AC DV 68 or ESL 3 with a minimum grade of “C” or “CR” or English Level 3. Hours: (72) 4 lect. CCS: Precollege — basic skills. Not Transferable: Not degree applicable.

ENGL 255 Computer Assisted Writing (1 unit)
Introduces students to writing on microcomputers. Students learn to use word processing programs for prewriting, outlining, drafting, revising, and preparing college level reports, compositions, and term papers. Students work on assigned or personal writing projects. Recommended: English Level 3, Reading Level 1 and basic typing skills. Hours: (18) 1 lect. Repeat: 1. CCS: Precollege — discipline specific. Not Transferable: Not degree applicable. Note: Not open to students with credit in ENGL 55.
ENGLISH AS A SECOND LANGUAGE (ESL)

Bakersfield College offers a complete program of courses for the ESL student, including English, speech, reading courses, and counseling at the intermediate and advanced levels.

A comprehensive testing program has been especially designed to ensure that all foreign students are placed in the courses which will best suit their needs. All ESL students are urged to take the Bakersfield College English as a Second Language Placement Test.

An International Student Advisor is available in the International Student Center to assist with scheduling of courses and to discuss academic as well as personal problems. All international students and other students for whom English is a second language are urged to visit the center and take advantage of the services offered there.

For course descriptions of ESL courses, see Foreign Language.

For course descriptions of reading, spelling, vocabulary, and other writing courses, see Academic Development.
Ethnic Studies

Black Studies
Chicano Studies

Related Ethnic Studies Courses
ETHNIC STUDIES

The Ethnic Studies curriculum consists of three areas: Black Studies, Chicano Studies and related courses which have special significance to racial minorities and to the general student. These courses will normally be listed within the appropriate subject areas.

Several universities and state colleges have established ethnic studies majors. These may be specialized as Black or Chicano studies or combined as Ethnic Studies. Students intending to transfer in these major areas should consult the catalog of the transfer institution. At Bakersfield College a student completing 18 units in either Black or Chicano studies in combination with related courses will qualify as a major in that area.

COURSE DESCRIPTIONS

The following abbreviations are commonly used in the course descriptions: lect lecture; lab laboratory; demo demonstration; Repeat repeatability (see policy on course repetition); CCS Course Classification System. Hours given in parentheses are total hours for the course. Hours lecture, lab, etc., are hours required per week usually. Prerequisites are expressed as minimum requirements. See page 47 for a complete explanation. (CSU) indicates transferable to California State Universities; (UC) indicates Transferable to University of California.

BLACK STUDIES

The Black Studies Program, as part of Ethnic Studies, is designed to promote academic awareness and develop a sensitivity to the historical, cultural and social development of this particular group of people. Courses are described below.

HIST 20a-20b African American History of the United States (3-3 units)
Survey of the political, economic, and cultural history of the United States from the earliest colonial times to the present with emphasis on the role and contributions of African Americans. HIST 20a (to 1896) includes a study of the U.S. Constitution and federal government. HIST 20b (since 1877) includes a study of the state and local government of California. Satisfies the requirements in U.S. Constitution and American history and institutions. Recommended: Reading Level 1. Hours: (54–54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

CHICANO STUDIES

CH ST 24 Latinas in the United States (3 units)
A survey of the changing psychological and social conditions of Latinas as they pertain to the economic, political, and family developments within the Hispanic cultural context. An analysis of specific issues such as housing, health, and employment will be made in their specific relationships with Latinas in relation to the broad areas of the economy, the family and politics. Recommended: Reading Level 1. Hours: (54) 3 lect/disc. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

CH ST 30a Early Chicano History (3 units)
A survey of the history of the peoples of the Mexican-American borderlands, from Pre-Columbian times until 1848. Examines the social, economic, and political evolution of the region with emphasis upon the inter-relationships between the histories of the United States and Mexico. Satisfies the requirements in U.S. Constitution, American history and institutions. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: Not open to students with credit in HIST 30a.

CH ST 30b History of Chicanos in the Southwest (3 units)
Survey of the Chicanos with an emphasis on the development of California and the Southwest from 1848 to the present. Examines the aftermath of the U.S.-Mexican War, 1846-1848; the inter-relationship of Mexican and U.S. history between 1860 and 1910; the effects of the Mexican Revolution of 1910 on the 20th Century experience of Chicanos in the U.S.; and the California State Constitution. Satisfies the requirements in U.S.Constitution, American history, and institutions. Recommended: Reading Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: Not open to students with credit in HIST 30b.
CH ST 36 Sociology of the Chicano (3 units)
A survey of the socioeconomic characteristics of the Chicano community in the United States. Emphasizes the inter-relationships of Chicanos and society including the process of assimilation, minority status, and Chicano culture. Recommended: Reading Level I. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: Not open to students with credit in SOC 36.

RELATED ETHNIC STUDIES COURSES

HIST 20a–20b African American History of the United States (3–3 units)
Survey of the political, economic, and cultural history of the United States from earliest colonial times to present with emphasis on the role and contributions of African Americans. HIST 20a (to 1896) includes a study of the U.S. Constitution and federal government. HIST 20b (since 1877) includes a study of the state and local government of California. Satisfies the requirements in U.S. Constitution and American history and institutions. Recommended: Reading Level 1. Hours: (54–54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

HIST 36 History of Native Americans (3 units)
Survey of the origins, traditions, lifeway, and belief systems of the Native American. Emphasis is on the encounter with Anglo-American expansion and on the impact of the governmental policies on this indigenous people. Recommended: Reading Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: Offered only occasionally.

PSYCH 37 Psychology of Gender Roles (3 units)
Images of men and women in history and mythology, sex differences in theories of development, stages of adjustment, abilities, achievement, and motivation, biological influences on behavior, sexuality, minority group sex roles, and cross-cultural perspectives on sex roles. Includes emphasis on application of the aforementioned theoretical knowledge to the life of the student. Prerequisite: PSYCH 1a. Hours: (54) 3 lect/disc. CCS: Liberal Arts & Sciences. Transferable: UC.

SPCH 31a–31b–31c–31d Persuasion in a Democratic Society (1.5–1.5–1.5–1.5 units)
Recommended: ENGL 1a eligibility, Reading Level I. Hours: (27 each) Each 3 lect/disc for 9 weeks. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

SPCH 31a Freedom of Expression
Instruction in the analysis and evaluation of constitutional guarantees of freedom of expression. Instruction in the historical development of freedom of expression, obscenity, legal liabilities. Emphasizes freedom of expression in radio, television and politics.

SPCH 31b Freedom of Speech
Instruction in the analysis and evaluation of constitutional guarantees of freedom of speech. Instruction in the historical background, regulation of time, place and manner, legal protection of the speaker and free speech on college campuses. Emphasizes responsibilities involved in freedom of speech in contemporary American society.

SPCH 31c The Rhetoric of Agitation
Instruction in the techniques of agitation and revolution with emphasis on the rhetoric of conflict in both formal and informal discourse. Instruction in the values and dangers of agitation. Emphasizes the effect of agitation on decision making in a democratic society.

SPCH 31d Interracial Communication
Instruction in cultural conflict and confrontation. Instruction in basic communication problems within a multi-racial, multi-cultural society. Emphasizes face-to-face interracial difficulties.
Family & Consumer Education

Child Development
Consumer Education
Family & Consumer Education
Family Studies
Fashion/Textiles
Foods & Nutrition Program
Interior Design
Nutrition
The Family and Consumer Education Department offers students the opportunity to select among several career programs. The department also offers courses which provide lower division credit for majors transferring to baccalaureate programs.

The student may develop a program of study leading to a specific career certificate goal, the Associate in Science Degree, the Associate in Arts Degree, or lower division courses that lead to the baccalaureate degree in Home Economics, Child Development, Foods and Nutrition, Interior Design, or K-12 teaching credentials.

CERTIFICATES OF ACHIEVEMENT
These programs are designed for those who prefer career specialization and the earliest possible opportunity for job placement and/or small business enterprise. Students wishing greater in-depth preparation may continue toward advanced courses and the Associate Degree.

Programs offering these occupational certificates include: Fashions/Textiles, Culinary Arts, Cook Apprenticeship, Interior Design, California State Dietetic Service Supervisor, Child Nutrition Management.

Each program consists of basic requirements and suggested electives. Electives may be selected to achieve personalized educational objectives.

Upon completion of requirements, the student may apply for a Certificate of Achievement. Certificates are awarded upon approval by program coordinators and the department chairperson.

CHILD NUTRITION MANAGEMENT CERTIFICATE
Program emphasizes quality food production, production records, nutrition standards and student service in child nutrition programs including public and private schools, child-care centers and day-care centers.

A Certificate of Achievement may be earned by students who satisfactorily complete 27 units from the courses listed below, with a minimum grade of “C” in all required courses.

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FD SV 50</td>
<td>Introduction to the Foodservice Industry</td>
<td>2.0</td>
</tr>
<tr>
<td>FD SV 52</td>
<td>Sanitation/Safety</td>
<td>2.0</td>
</tr>
<tr>
<td>FD SV 53b</td>
<td>Basic Skills: Basic Foods</td>
<td>2.0</td>
</tr>
<tr>
<td>NUTR 10</td>
<td>Elementary Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>FD SV 58</td>
<td>Foodservice Supervision</td>
<td>3.0</td>
</tr>
<tr>
<td>FD SV 59</td>
<td>Food Production Management</td>
<td>3.0</td>
</tr>
<tr>
<td>FD SV 66</td>
<td>Menu Design for Child Nutrition Programs</td>
<td>3.0</td>
</tr>
<tr>
<td>FD SV 67</td>
<td>Child Nutrition Program Management</td>
<td>3.0</td>
</tr>
<tr>
<td>FACE 249</td>
<td>Cooperative Work Experience Education</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>English</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Computer</td>
<td>1.0</td>
</tr>
</tbody>
</table>

COOK APPRENTICESHIP CERTIFICATE
This three-year program is designed to fulfill the academic requirements of the American Culinary Federation Institute’s Apprenticeship Training Program for chefs. Students are required to complete 2,000 hours of specified work per year for three years for a total of 6,000 hours in addition to the academic program.

Eligibility of candidates for the program is determined by the selection committee of the Chef de Cuisine Association of Bakersfield.

A Certificate of Achievement may be earned by students who satisfactorily complete 31 units from the courses listed below, with a minimum grade of “C” in all required courses.

Minimum units required in discipline: 31

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FD SV 50</td>
<td>Introduction to the Foodservice Industry</td>
<td>2.0</td>
</tr>
<tr>
<td>FD SV 52</td>
<td>Sanitation/Safety</td>
<td>2.0</td>
</tr>
<tr>
<td>FD SV 55a</td>
<td>Food Production I</td>
<td>2.5</td>
</tr>
<tr>
<td>FD SV 55b</td>
<td>Food Production II</td>
<td>2.5</td>
</tr>
<tr>
<td>FD SV 55e</td>
<td>Food Production Laboratory</td>
<td>2.0</td>
</tr>
<tr>
<td>FD SV 55d</td>
<td>Food Production Laboratory</td>
<td>2.0</td>
</tr>
<tr>
<td>NUTR 10</td>
<td>Elementary Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>FD SV 57</td>
<td>Purchasing</td>
<td>3.0</td>
</tr>
<tr>
<td>FD SV 58</td>
<td>Foodservice Supervision</td>
<td>3.0</td>
</tr>
<tr>
<td>FD SV 59</td>
<td>Food Production Management</td>
<td>3.0</td>
</tr>
<tr>
<td>FD SV 54</td>
<td>Classical and International Cuisine</td>
<td>3.0</td>
</tr>
<tr>
<td>FD SV 60</td>
<td>Cost Control</td>
<td>3.0</td>
</tr>
</tbody>
</table>

CULINARY ARTS CERTIFICATE
Program emphasizes quality food production and service in commercial and institutional...
FAMILY AND CONSUMER EDUCATION

foodservice operations. Course work includes practical training in the campus restaurant, the Renegade Room.

A certificate of achievement may be earned by students who satisfactorily complete 25 units from the courses listed below, with a minimum of “C” in all required courses.

Minimum units required in discipline: 25

Required Courses
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDSV 50</td>
<td>Introduction to the Foodservice Industry</td>
<td>2.0</td>
</tr>
<tr>
<td>FDSV 52</td>
<td>Sanitation/Safety</td>
<td>2.0</td>
</tr>
<tr>
<td>FDSV 55a</td>
<td>Food Production I</td>
<td>2.5</td>
</tr>
<tr>
<td>FDSV 55b</td>
<td>Food Production II</td>
<td>2.5</td>
</tr>
<tr>
<td>FDSV 55c</td>
<td>Food Production Laboratory</td>
<td>2.0</td>
</tr>
<tr>
<td>FDSV 55d</td>
<td>Food Production Laboratory</td>
<td>2.0</td>
</tr>
<tr>
<td>NUTR 10</td>
<td>Elementary Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>FDSV 57 or</td>
<td>Purchasing</td>
<td>3.0</td>
</tr>
<tr>
<td>FDSV 58</td>
<td>Foodservice Supervision</td>
<td>3.0</td>
</tr>
<tr>
<td>FACE 249</td>
<td>Cooperative Work Experience Education</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>Computer Course(s)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>English</td>
<td>3.0</td>
</tr>
</tbody>
</table>

DIETETIC SERVICES CERTIFICATE
Program provides training for students planning employment in the foodservice department of a health care operation. Courses in this program meet State of California Department of Health Services certification requirements. Consult with a member of the Foods and Nutrition Program staff before scheduling courses in the program. At this time appropriate clinical field experience will be planned.

A Certificate of Achievement may be earned by students who satisfactorily complete 24.5 units from the courses listed below, with a minimum grade of “C” in all required courses.

Minimum units required in discipline: 24.5

Required Courses
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDSV 50</td>
<td>Introduction to the Foodservice Industry</td>
<td>2.0</td>
</tr>
<tr>
<td>FDSV 52</td>
<td>Sanitation/Safety</td>
<td>2.0</td>
</tr>
<tr>
<td>FDSV 55a</td>
<td>Food Production I</td>
<td>2.5</td>
</tr>
<tr>
<td>FDSV 55b</td>
<td>Food Production II</td>
<td>2.5</td>
</tr>
<tr>
<td>FDSV 55c</td>
<td>Food Production Laboratory</td>
<td>2.0</td>
</tr>
<tr>
<td>FDSV 55d</td>
<td>Food Production Laboratory</td>
<td>2.0</td>
</tr>
<tr>
<td>NUTR 10</td>
<td>Elementary Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>FDSV 58</td>
<td>Foodservice Supervision</td>
<td>3.0</td>
</tr>
<tr>
<td>FDSV 59</td>
<td>Food Production Management</td>
<td>3.0</td>
</tr>
<tr>
<td>FDSV 64a</td>
<td>Health Care Food Service Operations I</td>
<td>2.0</td>
</tr>
<tr>
<td>FACE 249</td>
<td>Cooperative Work Experience Education</td>
<td>2.0</td>
</tr>
</tbody>
</table>

FASHIONS/TEXTILES CERTIFICATE
The Fashions and Textiles Certificate of Achievement Program prepares students to enter the expanding field of clothing construction and alterations.

Minimum units required in discipline: 24

Required Courses
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 9</td>
<td>Clothing Construction I</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 10</td>
<td>Clothing Construction II</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 24</td>
<td>Textiles and Fashions</td>
<td>3.0</td>
</tr>
<tr>
<td>FASH 12</td>
<td>Tailoring</td>
<td>2.0</td>
</tr>
<tr>
<td>FASH 53</td>
<td>Custom Fitting and Alterations</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Electives — Minimum of 11 units
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASH 13</td>
<td>Tailoring 2</td>
<td>2.0</td>
</tr>
<tr>
<td>FASH 23</td>
<td>Apparel Selection</td>
<td>0.5</td>
</tr>
<tr>
<td>FASH 51</td>
<td>Beginning Sewing</td>
<td>1.5</td>
</tr>
<tr>
<td>FASH 52</td>
<td>Intermediate Sewing</td>
<td>1.5</td>
</tr>
<tr>
<td>FASH 54</td>
<td>Garment Design and Construction I</td>
<td>2.0</td>
</tr>
<tr>
<td>FASH 55</td>
<td>Garment Design and Construction II</td>
<td>2.0</td>
</tr>
<tr>
<td>FASH 76h</td>
<td>Overlock Techniques</td>
<td>1.0</td>
</tr>
<tr>
<td>BUS 40</td>
<td>Personal Finance</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 251</td>
<td>Business Mathematics</td>
<td>3.0</td>
</tr>
</tbody>
</table>

INTERIOR DESIGN CERTIFICATE
The curriculum is designed to prepare students for entry level employment in interior design and related fields.

Minimum units required in discipline: 30

Required Courses
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>INT D 1</td>
<td>Introduction to Architecture and Interior Design</td>
<td>1.0</td>
</tr>
<tr>
<td>INT D 14</td>
<td>Design Presentation Techniques</td>
<td>2.0</td>
</tr>
<tr>
<td>INT D 15a</td>
<td>Elements and Principles of Interior Design</td>
<td>3.0</td>
</tr>
<tr>
<td>INT D 15b</td>
<td>Materials and Components of Interior Design</td>
<td>3.0</td>
</tr>
<tr>
<td>INT D 12</td>
<td>Careers: Professional Practices</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 10 or</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>IN DR 10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
</tbody>
</table>

(Continued next page)
IN DR 11 Introduction to Computer Aided Drafting and Design (CADD) 1.0
INT D 22 Housing and Environmental Design 3.0
INT D 23ab Furniture Styles 6.0
INT D 24 Textiles 3.0

Restrictive Electives* (Minimum of 4 units)
*Four units must be chosen from the Restrictive Electives listed below. Students may select all four units from one area of emphasis or may select units from either of the three areas to total four.

### I. General Emphasis

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>INT D 16</td>
<td>Measurements and Calculations</td>
<td>2.0</td>
</tr>
<tr>
<td>INT D 75b</td>
<td>Lighting</td>
<td>2.0</td>
</tr>
<tr>
<td>ART 2ab</td>
<td>Basic Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 3ab</td>
<td>Basic Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 3ef</td>
<td>Fundamentals of Color</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 30a or</td>
<td>Ancient Mediterranean Art</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 30b or</td>
<td>Medieval Art</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 30c</td>
<td>Renaissance Art</td>
<td>3.0</td>
</tr>
<tr>
<td>CNSTR 2</td>
<td>Estimating and Scheduling</td>
<td>3.0</td>
</tr>
<tr>
<td>CNSTR 4a</td>
<td>Cabinetmaking and Millwork</td>
<td>4.0</td>
</tr>
<tr>
<td>THEAT 9</td>
<td>Introduction to Lighting and Sound Design</td>
<td>3.0</td>
</tr>
<tr>
<td>W EXP 249</td>
<td>Cooperative Work Experience Education</td>
<td>1.0</td>
</tr>
</tbody>
</table>

### II. Architecture/Design Emphasis

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 2ab</td>
<td>Basic Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 3ab</td>
<td>Basic Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 3cd</td>
<td>Three Dimensional Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ART 14cd</td>
<td>Graphic Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 10 or</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>IN DR 10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>IN DR 11</td>
<td>Introduction to Computer Aided Drafting and Design (CADD)</td>
<td>1.0</td>
</tr>
<tr>
<td>ARCH 6</td>
<td>Materials of Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 11</td>
<td>Introduction to Drawing and Perspective</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 12</td>
<td>Basic Graphics</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 13</td>
<td>Graphic Analysis and Communication Skills</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 21</td>
<td>Architectural Design Fundamentals I</td>
<td>1.0</td>
</tr>
<tr>
<td>ARCH 30</td>
<td>Architectural Model Building</td>
<td>1.0</td>
</tr>
<tr>
<td>ARCH 31</td>
<td>Architectural Practice I</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 32</td>
<td>Architectural Computer Graphics</td>
<td>2.0</td>
</tr>
<tr>
<td>ARCH 45</td>
<td>Building Codes</td>
<td>3.0</td>
</tr>
<tr>
<td>INT D 75c</td>
<td>Commercial Specifications</td>
<td>1.0</td>
</tr>
</tbody>
</table>

### III. Retail Sales Emphasis

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>INT D 75c</td>
<td>Commercial Specifications</td>
<td>1.0</td>
</tr>
<tr>
<td>INT D 75g</td>
<td>Retailing and Merchandising in Interior Design</td>
<td>1.0</td>
</tr>
<tr>
<td>BUSMG 62</td>
<td>Fundamentals of Personal Selling</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSMG 64</td>
<td>Fundamentals of Advertising</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### Other Suggested Courses (Not to be applied to 30 required units)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSAC 53a</td>
<td>Introduction to Accounting I</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSAC 53b</td>
<td>Introduction to Accounting II</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 58</td>
<td>Human Relations and Motivation</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYCH 1a</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>WOOD 2</td>
<td>Beginning Machine Woodworking</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS 251</td>
<td>Business Mathematics</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS A 18a</td>
<td>Business Law</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSMG 65c</td>
<td>Organizational Communications</td>
<td>1.0</td>
</tr>
</tbody>
</table>

### ASSOCIATE DEGREE PROGRAMS

Students may continue their training and education beyond the Certificate of Achievement by taking additional related and general education courses which may lead to an Associate in Science or Associate in Arts degree.

Students must comply with the requirements as shown in the catalog under Graduation Requirements. Counselors/advisors will assist the student in planning for an Associate Degree.

### ASSOCIATE IN ARTS DEGREE PROGRAMS

**INTERIOR DESIGN**

The curriculum is designed to prepare students for employment in Interior Design and related fields.

**Minimum units required in discipline: 25**

### Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>INT D 1</td>
<td>Introduction to Interior Design</td>
<td>1.0</td>
</tr>
<tr>
<td>INT D 14</td>
<td>Design Presentation Techniques</td>
<td>2.0</td>
</tr>
<tr>
<td>INT D 15a</td>
<td>Elements and Principles of Interior Design</td>
<td>3.0</td>
</tr>
<tr>
<td>INT D 15b</td>
<td>Materials and Components of Interior Design</td>
<td>3.0</td>
</tr>
<tr>
<td>INT D 16</td>
<td>Measurements and Calculations</td>
<td>2.0</td>
</tr>
<tr>
<td>ARCH 10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
</tbody>
</table>

(Continued next page)
ASSOCIATE IN SCIENCE DEGREE PROGRAMS

CHILD DEVELOPMENT AND FAMILY RELATIONS
This program is designed to train students to work in a variety of early childhood settings. The two-year program primarily serves students desiring an early childhood background, supervised student teaching experience and fulfillment of academic requirements for a Regular Children’s Center Instructional Permit (See Course of Study for Children's Center Permit). It is strongly recommended that students in this program work closely with the departmental counselor/advisor.

Minimum units required in discipline: 31

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH DV 13a</td>
<td>Child Growth and Development</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>CH DV 13b</td>
<td>Child Growth and Development</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>CH DV 133</td>
<td>Survey of Special Education</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>CH DV 40a</td>
<td>Creative Activities for Young Children</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>CH DV 40b</td>
<td>Music Activities for Young Children</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>CH DV 41a</td>
<td>Principles and Practices in Early Childhood Education</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>CH DV 41al</td>
<td>Laboratory for Principles and Practices in Early Childhood Education</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>CH DV 41b</td>
<td>Principles and Practices in Early Childhood Education</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>CH DV 41bl</td>
<td>Laboratory for Principles and Practices in Early Childhood Education</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>CH DV 42</td>
<td>Child, Family and the Community</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>CH DV 44</td>
<td>Infant/Toddler Care and Development</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>CH DV 44l</td>
<td>Laboratory for Infant/Toddler Care and Development</td>
<td>2.0</td>
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</tr>
<tr>
<td>CH DV 49</td>
<td>Child Health and Safety</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>CH DV 54</td>
<td>Introduction to Early Childhood Education</td>
<td>1.0</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Other Suggested Courses</th>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH DV 32</td>
<td>Designing Anti-Bias and Multicultural Curriculum</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>CH DV 43</td>
<td>Techniques of Parent Education</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>CH DV 45a</td>
<td>Administration of Programs for Young Children: Business Procedures</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>CH DV 70</td>
<td>Topics in Child Development</td>
<td>4.0</td>
<td></td>
</tr>
</tbody>
</table>

ENGL 35    Children's Literature and Storytelling    3.0
FAMS 31    Marriage                                      3.0
NUTR 10    Elementary Nutrition                          3.0

Special Education Emphasis
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH DV 35a</td>
<td>Understanding the Emotionally Challenged Child</td>
<td>1.0</td>
</tr>
<tr>
<td>CH DV 35b</td>
<td>Understanding the Learning Disabled Child</td>
<td>1.0</td>
</tr>
<tr>
<td>CH DV 35c</td>
<td>Understanding the Developmentally Disabled Child</td>
<td>1.0</td>
</tr>
<tr>
<td>CH DV 35d</td>
<td>Understanding the Physically Challenged Child</td>
<td>1.0</td>
</tr>
<tr>
<td>CH DV 35e</td>
<td>Working with the Autistic Child</td>
<td>1.0</td>
</tr>
<tr>
<td>CH DV 52</td>
<td>Care of Infants and Toddlers with Disabilities</td>
<td>3.0</td>
</tr>
</tbody>
</table>

FAMILY AND CONSUMER STUDIES
The Associate Degree curriculum in Family and Consumer Studies is planned for the person seeking practical training in planning and establishing a home or for the person wishing to begin professional preparation to become a home economist in a variety of fields, such as teaching, dietetics and nutrition, food service director, interior design, writing and advertising, experimentation in textiles and foods, fashion merchandising, extension service, and consumer affairs.

Minimum units required in related discipline: 32

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH DV 13a</td>
<td>Child Growth and Development</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>FASH 9</td>
<td>Clothing Construction 1</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>FASH 10</td>
<td>Clothing Construction 2</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>FAMS 31</td>
<td>Marriage</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>FD SV 1</td>
<td>Introduction to the Food Service Industry</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>FD SV 30</td>
<td>Food Preparation and Theory</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>FD SV 51a</td>
<td>Food Service Skills Development</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>FD SV 52</td>
<td>Sanitation/Safety</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>INT D 1</td>
<td>Introduction to Interior Design</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>INT D 15a</td>
<td>Elements and Principles of Interior Design</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>INT D 15b</td>
<td>Materials and Components of Interior Design</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>INT D 24</td>
<td>Textiles</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>NUTR 10</td>
<td>Elementary Nutrition</td>
<td>3.0</td>
<td></td>
</tr>
</tbody>
</table>

FOOD SERVICE MANAGEMENT
The foodservice industry offers limitless job opportunities. The Foods and Nutrition Program provides professional training for employment.
in commercial and institutional foodservice operations. The program provides a two-year curriculum which leads to an Associate in Science degree or a variety of certificate programs with emphasis in culinary arts, foodservice management, child nutrition management, dietetic services and the cook apprenticeship program. Courses are designed to serve students who wish to enter the field as well as working professionals who wish to upgrade their skills. The Management Development Diploma Program is also available from the National Restaurant Association.

An Associate in Science Degree shall be earned by students who satisfactorily complete one of the following program options listed below. General requirements for an Associate in Science degree shall be met as specified in the graduation section of the current catalog. Students should consult with a counselor to plan their educational plan for the program option that meets their personal needs and career objectives.

**CHILD NUTRITION MANAGEMENT OPTION:**
Minimum units required in discipline: 30

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FD SV 50</td>
<td>Introduction to the Foodservice Industry</td>
<td>2.0</td>
</tr>
<tr>
<td>FD SV 52</td>
<td>Sanitation/Safety</td>
<td>2.0</td>
</tr>
<tr>
<td>FD SV 53b</td>
<td>Basic Skills: Basic Foods</td>
<td>2.0</td>
</tr>
<tr>
<td>NUTR 10</td>
<td>Elementary Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>FD SV 58</td>
<td>Foodservice Supervision</td>
<td>3.0</td>
</tr>
<tr>
<td>FD SV 59</td>
<td>Food Production Management</td>
<td>3.0</td>
</tr>
<tr>
<td>FD SV 66</td>
<td>Menu Design for Child Nutrition Programs</td>
<td>3.0</td>
</tr>
<tr>
<td>FD SV 67</td>
<td>Child Nutrition Program Management</td>
<td>3.0</td>
</tr>
<tr>
<td>FD SV 57</td>
<td>Purchasing</td>
<td>3.0</td>
</tr>
<tr>
<td>FD SV 60</td>
<td>Cost Control</td>
<td>3.0</td>
</tr>
<tr>
<td>FACE 249</td>
<td>Cooperative Work Experience Education</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>Computer Course(s)</td>
<td>1.0</td>
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</tbody>
</table>

**FOODSERVICE MANAGEMENT OPTION:**
Minimum units required in discipline: 36

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FD SV 50</td>
<td>Introduction to the Foodservice Industry</td>
<td>2.0</td>
</tr>
<tr>
<td>FD SV 52</td>
<td>Sanitation and Safety</td>
<td>2.0</td>
</tr>
<tr>
<td>FD SV 55a</td>
<td>Food Production I</td>
<td>2.5</td>
</tr>
<tr>
<td>FD SV 55b</td>
<td>Food Production II</td>
<td>2.5</td>
</tr>
<tr>
<td>FD SV 55c</td>
<td>Food Production Laboratory</td>
<td>2.0</td>
</tr>
<tr>
<td>FD SV 55d</td>
<td>Food Production Laboratory</td>
<td>2.0</td>
</tr>
<tr>
<td>FD SV 57</td>
<td>Purchasing</td>
<td>3.0</td>
</tr>
<tr>
<td>FD SV 58</td>
<td>Supervisory Techniques</td>
<td>3.0</td>
</tr>
<tr>
<td>FD SV 59</td>
<td>Food Production Management</td>
<td>3.0</td>
</tr>
<tr>
<td>FD SV 60</td>
<td>Cost Control</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS A 18a</td>
<td>Business Law</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSAC 53a</td>
<td>Introduction to Accounting</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSMK 1</td>
<td>Fundamentals of Marketing</td>
<td>3.0</td>
</tr>
<tr>
<td>FACE 249</td>
<td>Cooperative Work Experience Education</td>
<td>2.0</td>
</tr>
<tr>
<td>NUTR 10</td>
<td>Elementary Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Computer Course</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**SUGGESTED TRANSFER PROGRAMS**
Since requirements vary, the current catalog of the chosen college or university should be consulted for specific requirements of the chosen field.

These suggested programs will meet most of the lower division requirements as electives at California State Universities as well as fulfilling all the requirements for the Associate Degree from Bakersfield College.

**CHILD DEVELOPMENT**
A major in Child Development can lead to a profession in teaching, business, and human service areas.

**Suggested Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH DV 13a</td>
<td>Child Growth and Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CH DV 13b</td>
<td>Child Growth and Development</td>
<td>3.0</td>
</tr>
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</table>

(Continued next page)
CHDV32  Designing Anti-Bias and Multicultural Curriculum  2.0
CHDV33  Survey of Special Education  3.0
CHDV40a  Creative Activities for Young Children  2.0
CHDV40b  Music Activities for Young Children  2.0
CHDV41a  Principles and Practices in Early Childhood Education  2.0
CHDV41aL  Laboratory for Principles and Practices in Early Childhood Education  2.0
CHDV41b  Principles and Practices in Early Childhood Education  2.0
CHDV41bL  Laboratory for Principles and Practices in Early Childhood Education  2.0
CHDV42  Child, Family and the Community  3.0
CHDV44  Infant/Toddler Care and Development  2.0
CHDV44L  Laboratory for Infant/Toddler Care and Development  2.0

INTERIOR DESIGN
Designed for students preparing for professional careers in teaching and business. The degree is the Bachelor of Arts with a major in Interior Design.

Suggested Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>INT D 15a</td>
<td>Elements and Principles of Interior Design</td>
<td>3.0</td>
</tr>
<tr>
<td>INT D 15b</td>
<td>Materials and Components of Interior Design</td>
<td>3.0</td>
</tr>
<tr>
<td>INT D 21a</td>
<td>Interior Drawing</td>
<td>1.5</td>
</tr>
<tr>
<td>INT D 21b</td>
<td>Interior Drawing</td>
<td>1.5</td>
</tr>
<tr>
<td>INT D 22</td>
<td>Housing and Environmental Design</td>
<td>3.0</td>
</tr>
<tr>
<td>INT D 23a</td>
<td>Furniture Styles</td>
<td>3.0</td>
</tr>
<tr>
<td>INT D 23b</td>
<td>Furniture Styles</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>IN DR 20a</td>
<td>Computer Aided Drafting and Design (CADD)</td>
<td>3.0</td>
</tr>
</tbody>
</table>

BAKERSFIELD COLLEGE COURSE OF STUDY
FOR REGULAR CHILDREN'S CENTER PERMIT
Students must complete the following requirements to qualify for a Children's Center Permit. The course requirements are included within the A.S. Degree in Child Development and Family Relations. The permit is required to teach in children's centers and preschool programs that are wholly or partially financed by state or federal funds (Title 5).

A. Children's Center Permit requirements:
1. 24 units in approved Child Development courses, each with a grade of "C" or better.
2. 1 field study course (fulfilled by CHDV41bL).
3. 100 days experience (See description in "C" below).
4. 16 units General Education Requirements (See "D" below).
5. Terms of Renewal. (See description in "E" below).

B. Required Courses: 14 units

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHDV13a</td>
<td>Child Growth and Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CHDV41a</td>
<td>Principles and Practices in Early Childhood Education</td>
<td>3.0</td>
</tr>
<tr>
<td>CHDV41aL</td>
<td>Laboratory for Principles and Practices in Early Childhood Education</td>
<td>2.0</td>
</tr>
<tr>
<td>CHDV41b</td>
<td>Principles and Practices in Early Childhood Education</td>
<td>2.0</td>
</tr>
<tr>
<td>CHDV41bL</td>
<td>Laboratory for Principles and Practices in Early Childhood Education</td>
<td>2.0</td>
</tr>
<tr>
<td>CHDV42</td>
<td>Child, Family and the Community</td>
<td>3.0</td>
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</table>

Recommended Electives: Minimum of 10 units

<table>
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<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHDV13b</td>
<td>Child Growth and Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CHDV32</td>
<td>Designing Anti-Bias and Multicultural Curriculum</td>
<td>2.0</td>
</tr>
<tr>
<td>CHDV33</td>
<td>Survey of Special Education</td>
<td>3.0</td>
</tr>
<tr>
<td>CHDV40a</td>
<td>Creative Activities for Young Children</td>
<td>2.0</td>
</tr>
<tr>
<td>CHDV40b</td>
<td>Music Activities for Young Children</td>
<td>2.0</td>
</tr>
<tr>
<td>CHDV40c</td>
<td>Movement Activities for Young Children</td>
<td>2.0</td>
</tr>
<tr>
<td>CHDV43</td>
<td>Techniques of Parent Education</td>
<td>2.0</td>
</tr>
<tr>
<td>CHDV44</td>
<td>Infant/Toddler Care</td>
<td>2.0</td>
</tr>
<tr>
<td>CHDV44L</td>
<td>Laboratory for Infant/Toddler Care</td>
<td>2.0</td>
</tr>
<tr>
<td>CHDV45a</td>
<td>Administration of Programs for Young Children: Business Procedures</td>
<td>2.0</td>
</tr>
<tr>
<td>CHDV49 or</td>
<td>Child Health and Safety</td>
<td>2.0</td>
</tr>
<tr>
<td>CHDV50a &amp;</td>
<td>Child Development Units A-C-D</td>
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</tr>
<tr>
<td>CHDV50b &amp;</td>
<td>Infant &amp; Child First Aid-B</td>
<td>1.0</td>
</tr>
<tr>
<td>CHDV50c &amp;</td>
<td>Infant &amp; Child CPR</td>
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<tr>
<td>CHDV50e</td>
<td>Child Development Units E-F-G</td>
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</tr>
<tr>
<td>CHDV54</td>
<td>Introduction to Early Childhood Education</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Note: CHDV49 or CHDV50 series fulfills California legislated mandates that all licensed child care providers have at least one person with health and safety training present at all times in centers or in family child care homes.
**Special Education Emphasis**

Students wishing to place an emphasis on Special Education should take the following courses as part of the 10 units required for electives.

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH DV 33</td>
<td>Survey of Special Education</td>
<td>3.0</td>
</tr>
<tr>
<td>CH DV 35a</td>
<td>Understanding the Emotionally Challenged Child</td>
<td>1.0</td>
</tr>
<tr>
<td>CH DV 35b</td>
<td>Understanding the Learning Disabled Child</td>
<td>1.0</td>
</tr>
<tr>
<td>CH DV 35c</td>
<td>Understanding the Developmentally Disabled Child</td>
<td>1.0</td>
</tr>
<tr>
<td>CH DV 35d</td>
<td>Understanding the Physically Challenged Child</td>
<td>1.0</td>
</tr>
<tr>
<td>CH DV 35e</td>
<td>Working with the Autistic Child</td>
<td>1.0</td>
</tr>
<tr>
<td>CH DV 52</td>
<td>Care of Infants and Toddlers with Handicaps</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**School Age Emphasis**

Students wishing to place an emphasis on School Age Childcare should take the following courses as part of the 10 units required for electives.

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH DV 13b</td>
<td>Child Growth and Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CH DV 40d</td>
<td>Creative Activities for School Age Children</td>
<td>2.0</td>
</tr>
<tr>
<td>CH DV 41c</td>
<td>Principles and Practices in Extended Day Programs</td>
<td>2.0</td>
</tr>
<tr>
<td>CH DV 68a</td>
<td>Ages and Stages of Development of the School Age Child</td>
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</tr>
<tr>
<td>CH DV 68b</td>
<td>Curriculum I: School Age Child</td>
<td>1.0</td>
</tr>
<tr>
<td>CH DV 68c</td>
<td>Curriculum II: School Age Child</td>
<td>1.0</td>
</tr>
</tbody>
</table>

C. Lab Days Contributing to one-year experience requirement (100 days).

- CH DV 41aL - 36 days (3 hrs/day)
- CH DV 44L - 36 days (2 hrs/day)

Documented work experience may be used. Check with your advisor.

**D. General Education Requirements: 16 units**

Units must be taken in each of the following areas: English, Math/Science, History and Humanities. NUTR 10 Elementary Nutrition (3 units) is a recommended science course; ENGL 35, Children’s Literature and Storytelling (3 units) is a recommended Humanities course.

**E. Term and Renewal**

The Regular Children’s Center Instructional Permit is issued for five years and can be renewed upon submission of verification of the completion of 15 semester units of course work during each five-year renewal period until a Baccalaureate Degree is verified to the commission on Teacher Credentialing.

**Bakersfield College Course of Study For Teachers in Private Nursery Schools and Child Care Centers**

Courses offered at Bakersfield College fulfilling California Department of Social Services Requirements (Title 22) of 12 semester units for fully qualified teachers* in private centers are:

**Required Courses: 6 units**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH DV 13a</td>
<td>Child Growth and Development</td>
<td>3.0</td>
</tr>
<tr>
<td>CH DV 42</td>
<td>Child, Family and the Community</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Recommended Electives: Minimum of 6 units**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH DV 32</td>
<td>Designing Anti-Bias and Multicultural Curriculum</td>
<td>2.0</td>
</tr>
<tr>
<td>CH DV 40a</td>
<td>Creative Activities for Young Children</td>
<td>2.0</td>
</tr>
<tr>
<td>CH DV 40b</td>
<td>Music Activities for Young Children</td>
<td>2.0</td>
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<tr>
<td>CH DV 40c</td>
<td>Movement Activities for Young Children</td>
<td>2.0</td>
</tr>
<tr>
<td>CH DV 41a</td>
<td>Principles and Practices in Early Childhood Education</td>
<td>2.0</td>
</tr>
<tr>
<td>CH DV 41aL</td>
<td>Laboratory for Principles and Practices in Early Childhood Education</td>
<td>2.0</td>
</tr>
<tr>
<td>CH DV 41b</td>
<td>Principles and Practices in Early Childhood Education</td>
<td>2.0</td>
</tr>
<tr>
<td>CH DV 41bL</td>
<td>Laboratory for Principles and Practices in Child Health and Safety</td>
<td>2.0</td>
</tr>
</tbody>
</table>

The following courses are recommended for infant-toddler teachers:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH DV 44</td>
<td>Infant/Toddler Care and Development</td>
<td>2.0</td>
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<tr>
<td>CH DV 44L</td>
<td>Laboratory for Infant/Toddler Care and Development</td>
<td>2.0</td>
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<tr>
<td>CH DV 49</td>
<td>Child Health and Safety</td>
<td>2.0</td>
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<tr>
<td>CH DV 50a &amp;</td>
<td>Child Development Units A-C-D</td>
<td>0.5</td>
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<tr>
<td>CH DV 50b &amp;</td>
<td>Infant &amp; Child First Aid-B</td>
<td>1.0</td>
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<tr>
<td>CH DV 50c &amp;</td>
<td>Infant &amp; Child CPR</td>
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<tr>
<td>CH DV 50e</td>
<td>Child Development Units E-F-G</td>
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(Continued next page)
(CH DV 70 courses are provided as update courses for those teachers already licensed.)

Note: CH DV 49 or CH DV 50 series fulfills California legislated mandates that all licensed child care providers have at least one person with health and safety training present at all times in centers or in family child care homes.

Experience Requirement
At least 3 hours/day of work (volunteer or paid) with children, for a minimum of 50 days within a six-month period fulfills the experience requirement.

*Requirements for Emergency Approval
The California Department of Social Services will give emergency approval to teachers who, prior to employment, have completed six semester units in Child Development.

CH DV 13a Child Growth and Development (3 units) is recommended along with any courses listed above.

After employment a teacher working with an emergency approval must pass two units per semester from the list above until the 12 required units to be fully qualified are earned.

The above regulations are the minimum required in private nursery schools. Many schools have set their teacher education requirements at a higher level.
COURSE DESCRIPTIONS
The following abbreviations are commonly used in the course descriptions: lect lecture; lab laboratory; demo demonstration; Repeat repeatability (see policy on course repetition); CCS Course Classification System. Hours given in parentheses are total hours for the course. Hours lecture, lab, etc., are hours required per week usually. Prerequisites are expressed as minimum requirements. See page 47 for a complete explanation. (CSU) indicates transferable to California State Universities; (UC) indicates Transferable to University of California.

CHILD DEVELOPMENT
Credit limitations may apply. For specific information see a counselor.

(CH) at the end of some course descriptions refers to California Department of Social Services categories under Title 22.

CH DV 10 A Time to Grow (3 units)
Recommended for parents or future parents. Interplay of biological factors, human interactions, social structure, and other environment factors which affect the shaping of a child from conception through adolescence. Recommended: Reading Level 1. Hours: (54) Contact hours. CCS: Occupational Education. Transferable: UC, CSU and private colleges.

CH DV 13a Child Growth and Development (3 units)
The developing child from conception through adolescence with an emphasis on ages two through five years. Includes major theories of emotional, social, physical, and cognitive development. Recommended: Reading Level 1. Hours: (72) 3 lect, 1 hour per week observation. CCS: Occupational Education. Transferable: UC, CSU and private colleges. (CAN H EC 14 is equivalent to CH DV 13a and CH DV 13b) (DS 1)

CH DV 13b Child Growth and Development (3 units)
Physical, intellectual, emotional, and social development of the school age child through adolescence. Major theories of human development and the influences of the family, peers, school, and puberty. Prerequisite: CH DV 13a with a grade of “C.” Hours: (72) 3 lect, 1 hour per week observation. CCS: Occupational Education. Transferable: UC, CSU and private colleges. (CAN H EC 14 is equivalent to CH DV 13a and CH DV 13b) (DS 1)

CH DV 32 Designing Anti-Bias and Multicultural Curriculum (2 units)
Philosophy, materials and techniques necessary for designing a multicultural curriculum for young children, including examination of the relationship between critical aspects of culture and the personality development of children, adolescents, and adults. Recommended: Reading Level 1. Hours: (36) 2 lect. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges.

CH DV 33 Survey of Special Education (3 units)
Introduction to special education in the public schools. Emphasizes legal aspects, assessment and placement. Includes examination of all disabilities served in the public schools and day care settings and the role of child care professionals and paraprofessionals in the field of special education. Recommended: Reading Level 1. Hours: (54) 3 lect. Field trips required. CCS: Occupational Education. Transferable: CSU and private colleges. (DS 3)

CH DV 35a Understanding the Emotionally Challenged Child (1 unit)
Understanding of emotional disturbance in children concentrating on the preschool age and the early grade school age child. Study of the utilization of appropriate methods of intervention for those emotionally disturbed children, both preschool age and early grade school-age. Hours: (18) 2 lect for 9 weeks. CCS: Occupational Education. Transferable: CSU and private colleges. (DS 3)

CH DV 35b Understanding the Learning Disabled Child (1 unit)
Types of learning disabilities of children will be recognized. Students will learn remedial techniques used with students having
learning disabilities. **Hours:** (18) 2 lect for 9 weeks. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**CH DV 35c Understanding the Developmentally Disabled Child (1 unit)**

Presents the history of mental retardation and defines mental retardation in relation to child development. Studies teaching techniques for levels of retarded children. **Hours:** (18) 2 lect for 9 weeks. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**CH DV 35d Understanding the Physically Challenged Child (1 unit)**

Studies physical disabilities of children and the characteristics of those handicaps. Explains inclusion and those responsibilities of teacher, parent, and specialist. **Hours:** (18) 2 lect for 9 weeks. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**CH DV 35e Working with the Autistic Child (1 unit)**

Characteristics, theories, treatment methods, curriculum, family involvement, and service models available to autistic children. **Hours:** (18) 2 lect for 9 weeks. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**CH DV 36 Developmentally Appropriate Curriculum (3 units)**

The planning for and implementation of developmentally appropriate curriculum for children ages 3-8 years. Includes major concepts and theories of child growth and development for children in preschool, kindergarten and early primary grades. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.

**CH DV 40b Music Activities for Young Children (2 units)**

Music, teaching techniques and materials appropriate to the growth and development of young children. This course meets Child Development Associate option, competency No. 7. **Recommended:** Reading Level 1. **Hours:** (36) 2 lect/demo. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. (DS 3)

**CH DV 40c Movement Activities for Young Children (2 units)**

Movement activities designed to develop gross and fine motor skills and increase self-confidence for young children. This course meets Child Development Associate option, competency No. 4. **Recommended:** Reading Level 1. **Hours:** (36) 2 lect/demo. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. (DS 3)

**CH DV 40d Creative Activities for School Age Children (2 units)**

Art principles and materials appropriate to the artistic, intuitive and perceptual growth and development of school age children, including creative activities with storytelling, books, puppets, and nature. **Recommended:** Reading Level 1. **Hours:** (36) 2 lect/demo. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. (DS 5)

**CH DV 41a Principles and Practices in Early Childhood Education (2 units)**

Basic techniques of working with young children including: promoting self-esteem; creativity; self-discipline; development of physical and cognitive skills; and planning appropriate curriculum. **Prerequisites:** CH DV 13a with a grade of “C” and concurrent enrollment in CH DV 41aL. **Recommended:** At least one of the CH DV 40 series strongly recommended. **Hours:** (36) 2 lect/disc. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. (DS 3)

**CH DV 41aL Laboratory for Principles and Practices in Early Childhood Education (2 units)**

Supervised laboratory experience working with children two to five years of age in the Child Study Centers applying knowledge gained in
CH DV 41a. Prerequisite: CHDV 13a with a grade of “C” and concurrent enrollment in CHDV 41a. Hours: (108) 6 lab. CCS: Occupational Education. Transferable: CSU and private colleges. (DS 3)

CH DV 41b Principles and Practices in Early Childhood Education (2 units)
Advanced skills and knowledge for early childhood programs. Planning learning experiences and developing teaching materials appropriate to the physical, cognitive, social and emotional growth of the young child aged two to five. Prerequisites: CHDV 41a with a grade of “C” and concurrent enrollment in CHDV 41bL. Hours: (36) 2 lect/disc. Field trips required. CCS: Occupational Education. Transferable: CSU and private colleges. (DS 3)

CH DV 41bL Laboratory for Principles and Practices in Early Childhood Education (2 units)
Advanced laboratory experience and practice teaching in early childhood programs. Emphasizes curriculum and activity planning, and teaching techniques for three to five year olds. Prerequisite: CHDV 41aL with a grade of “C” and concurrent enrollment in CHDV 41b. Hours: (108) 6 lab. CCS: Occupational Education. Transferable: CSU and private colleges. (DS 3)

CH DV 42 Child, Family and the Community (3 units)
Socialization influences of the family, school, day care facilities, peer group, racial and ethnic groups, mass media, and community on children’s growth. Prerequisites: CHDV 41a with a grade of “C.” Hours: (54) 3 lect. Field trips required. CCS: Occupational Education. Transferable: UC, CSU and private colleges. (DS 2)

CH DV 43 Techniques of Parent Education (2 units)
The philosophy, materials, and techniques necessary for a viable parent education program for parents of young children, including conducting group discussions, parent meetings and conferences, developing parents’ self-esteem and participation.

Developing teacher communication skill will be emphasized. Recommended: Reading Level 1. Hours: (36) 2 lect. CCS: Occupational Education. Transferable: CSU and private colleges.

CH DV 44 Infant/Toddler Care and Development (2 units)
Infant/toddler development — physical, emotional, social and intellectual. Principles of child care, nutrition, health practices, and curriculum for children ages birth through two years. Prerequisites: CHDV 13a with a grade of “C” and concurrent enrollment in CHDV 44L. Hours: (36) 2 lect. CCS: Occupational Education. Transferable: CSU and private colleges. (DS 4)

CH DV 44L Laboratory for Infant/Toddler Care and Development (2 units)
Supervised laboratory experience in an infant/toddler center. Application of knowledge gained in CHDV 44. Class discussion of experiences with infants and toddlers in the Child Study Center. Prerequisites: CHDV 13a with a grade of “C.” Concurrent enrollment in CHDV 44. Hours: (90) 1 lect/disc, 4 lab. CCS: Occupational Education. Transferable: CSU and private colleges. (DS 4)

CH DV 45a Administration of Programs for Young Children: Business Procedures (3 units)
Administration of programs for young children including private and publicly-funded day-care centers and preschool programs, emphasizing business procedures. Prerequisites: CHDV 41a with a grade of “C.” Recommended: CHDV 41b. Hours: (54) 3 lect. Field trips required. CCS: Occupational Education. Transferable: CSU and private colleges. (DS 6)

CH DV 45b Administration of Programs for Young Children: Personal Management Procedures (3 units)
Administration of programs for young children including private and publicly-funded day-care centers and preschool programs. Emphasizes personnel management. Prerequisite: CHDV 41a with a grade of “C.” Recommended: CHDV 41b. Hours:
(54) 3 lect. CCS: Occupational Education. Transferable: CSU and private colleges. (DS 6)

CH DV 46 Child Abuse and Neglect (3 units)
Examination of the dimensions of child abuse and neglect and the public and private systems that respond to families experiencing this problem. Discussion topics include: history of abuse and neglect (physical, social, emotional), theoretical explanations for abusive behavior, the impact of abuse, issues in treatment and systematic responses. Emphasizes identification of abuse and the child abuse reporting law. Recommended: Reading Level 1. Hours: (54) 3 lect/disc. CCS: Occupational Education. Transferable: CSU and private colleges.

CH DV 47 Children in Crisis (3 units)
Understanding and recognizing emotional, social, and behavioral manifestations in children likely to experience future emotional and educational problems. Emphasizes identification of high risk groups and development of an appropriate support referral system for such children. Recommended: Reading Level 1. Hours: (54) 3 lect/disc. CCS: Occupational Education. Transferable: CSU and private colleges.

CH DV 48 Introduction to Elementary Education (3 units)
Introductory class for students considering teaching as a profession. Emphasizes career opportunities and issues in education. Requires observations in elementary classroom. Recommended: Reading Level 1. Hours: (72) 3 lect, 1 hr observation by arrangement. Field trips required. CCS: Occupational Education. Transferable: CSU and private colleges.

CH DV 49 Child Health and Safety (2 units)
For parents, aides, teachers, and directors of child care facilities. Health and safety assessments, needs issues, policies, and procedures addressed. Emphasis placed on application and demonstration of course content. American Red Cross certification for Infant/Child (Pediatric) CPR and Infant/Child (Pediatric) First Aid. (Students responsible for costs of American Red Cross books and certification.) Totally fulfills state licensing mandate of 15 hours of training in preventive health practices. Pediatric CPR and Pediatric First Aid. Recommended: Reading Level 1. Hours: (54) 1.5 lect/disc, 1.5 lab. Repeat: 3. CCS: Occupational Education. Transferable: CSU and private colleges.

CH DV 50a Child Development Units A-C-D (0.5 unit)
Health and safety for parents and child caregivers. American Red Cross Child Care Course certification for: A. Preventing Childhood injuries, C. Preventing infectious Diseases, D. Caring for ill children. (Students responsible for costs of American Red Cross books and certification.) Partially fulfills the state childcare licensing mandate of 15 hours of preventive health practices training. Recommended: Reading Level 1. Hours: (9) 3 lect/disc for 3 weeks. Repeat: 3 for recertification. CCS: Occupational Education. Not Transferable: Associate Degree only.

CH DV 50b Infant & Child First Aid-B (1 unit)
A plan to follow when a child is injured. Includes actions to take before and after an emergency and how to give first aid. American Red Cross certification for Infant and Child First Aid given. (Students are responsible for costs of American Red Cross books and certification.) Fulfills the state child care licensing mandate of training for Pediatric First Aid. Recommended: Reading Level 1. Hours: (18) 3 lect/disc for 6 weeks. Repeat: 3 for recertification. CCS: Occupational Education. Not Transferable: Associate Degree only.

CH DV 50c Infant & Child CPR (1 unit)
How to recognize a cardiopulmonary emergency and how to respond. American Red Cross certification for Infant and Child CPR. (Students are responsible for costs of American Red Cross books and certification.) Fulfills the state child care licensing mandate of training for Pediatric CPR. Recommended: Reading Level 1. Hours: (18) 3 lect/disc for 6 weeks. Repeat: 3 for recertification. CCS: Occupational Education. Not Transferable: Associate Degree only.
CH DV 50e Child Development Units E-F-G (0.5 unit)
Child development for parents and child caregivers. American Red Cross Child Care Course certification for: E. Learning About Child Development; F. Communicating with Children and Parents; G. Recognizing and Reporting Child Abuse. (Students are responsible for costs of American Red Cross books and certification.) Partially fulfills state child care licensing mandate of 15 hours of training in preventive health. Recommended: Reading Level 1. Hours: (9) 3 lect/disc for 3 weeks. Repeat: 3 for recertification. CCS: Occupational Education. Not Transferable: Associate Degree only.

CH DV 51 Working with Children Prenatally Substance Exposed (2 units)
Designed to train early childhood and family child care professionals in teaching and caring for children prenatally substance exposed and in forming partnerships with their families. Prerequisite: CH DV 13a with a minimum grade of “C.” Hours: (36) 2 lect/disc. CCS: Occupational Education. Not Transferable: Associate Degree only.

CH DV 52 Care of Infants and Toddlers with Disabilities (3 units)
Interdisciplinary course designed to prepare child care workers and education aides to care for disabled and chronically ill infants and toddlers. Recommended: Reading Level 1. Hours: (54) 3 lect. Field trips required. CCS: Occupational Education. Not Transferable: Associate Degree only.

CH DV 53 Early Childhood Mentor Training (2 units)
A study of 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. Prerequisite: Completion of a formal college-level course of study in early childhood education which included a supervised student teaching component. Recommended: Reading Level 1. Hours: (36) 2 lect. CCS: Occupational Education. Not Transferable: Associate Degree only.

CH DV 54 Introduction to Early Childhood Education (1 unit)
Introduction to the history, philosophy and theories of education for young children. Career and educational program planning. Explains credential and license requirements. Satisfies the 0.5 unit educational planning requirement for graduation from Bakersfield College. Hours: (18) 1 lect. CCS: Occupational Education. Not Transferable: Associate Degree only. (DS 3)

CH DV 56 Parenting (3 units)
Parental attitudes, communication skills, and discipline methods will be explored in a “hands-on” approach. Social, psychological, economic and cultural forces, including the impact of immigration and acculturation on parenting styles. Recommended: Reading Level 1. Hours: (54) 3 lect. CCS: Occupational Education. Not Transferable: Associate Degree only.

CH DV 68 Topics in Extended Day Care for School Age Children (1 unit)
Current information for working with the school age child. Recommended: Reading Level 1. Hours: (18) 18 lect/disc. CCS: Occupational Education. CCS: Occupational Education. Not Transferable: Associate Degree only. (DS 5)

CH DV 68a Ages and Stages of Development of the School Age Child
Social, emotional, physical, and intellectual development of the child through the preadolescent years, including planning curriculum and structuring the environment for each stage.

CH DV 68b Curriculum I: School Age Child
School age appropriate flannelboard stories, puppets, choral readings and creative dramas. Emphasis is on child participation in preparing materials, such as puppets, stages, costumes, sets and scripts. Repeat: 1.

CH DV 68c Curriculum II: School Age Child
Develops skills in directing team sports, teaching non-competitive games and folk-
dancing. Research in the community focusing on field trips, activities, and agencies for school age children. Current information for the school age child. Field trips required.

CH DV 67a Discipline for School-Age Children and Adolescents
History, culture and the origin of discipline. Communication and problem-solving skills emphasized. Hours: (18) 2 lect for 9 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only.

CH DV 70 Topics in Child Development (0.5–1 unit)
Current information on child development issues and curricula. Recommended as update courses for licensed teachers. Recommended: Reading Level 1. Hours: (18) 18 lect/disc. Repeat: Repeat as indicated. CCS: Occupational Education. Not Transferable: Associate Degree only.

CH DV 70a Planning Activities for Infants and Toddlers

CH DV 70b Preschool Curriculum for Patents Repeat: 3.

CH DV 70c Use of Puppets in the Classroom

CH DV 70d Discipline Techniques for Preschool Children

CH DV 70e Infant Care Repeat: 3.

CH DV 70f Toddler Care Repeat: 3.

CH DV 70g Piagetian Activity

CH DV 70h Science for Young Children

CH DV 70j Communicating with Children About Sexuality

CH DV 70k Literature Enrichment Activities Repeat: 1.

CH DV 70l Dramatic Play Repeat: 1.

CH DV 70m Creative Learning Environment — Inside

CH DV 70n Creative Learning Environment — Outside

CH DV 70o Multicultural Activities for Young Children

CH DV 70p Portfolio Development
Repeat: 3. May be repeated every two years for updating of rules and regulations.

CH DV 70q Math and Number Concepts

CH DV 70s Activities for Nutrition of Infants/Toddlers

CH DV 70t Staff Development Training
Repeat: 3.

CH DV 70u Developing Language & Math Skills
Repeat: 1.

CH DV 70v Legal and Ethical Issues of Child Development

CH DV 70w Fathering

CH DV 196 Strategic Learning System (2 units)
Students learn to use a complete learning system that incorporates strategies for understanding, integrating and remembering information from texts and lectures as well as strategies to prepare for and take tests. Prerequisite: Referral by Learning Disabilities Specialist or counselor. Recommended: Reading Level 3, concurrent enrollment in the designated lecture course coordinated with CH DV 196. Hours: (42) 3 lect/disc for 14 weeks. Repeat: 1. CCS: Precollegiate — basic skills. Not Transferable: Not degree applicable. Note: Not open to students with credit in AC DV 196.

CH DV 257a CDA—Family Day Care Base (1.5 units)
For Child Development Associate Family Day Care Base candidates. Emphasizes an indepth understanding of the six goals and 13
FAMILY AND CONSUMER EDUCATION

FAMILY AND CONSUMER EDUCATION
Credit limitations may apply. For specific information see a counselor.

FASHIONS
Credit limitations may apply. For specific information see a counselor.

FASHION 9 Clothing Construction I (3 units)
Basic sewing techniques and usage of commercial patterns. Construction of three
garments. Pattern and fabric selection based on current fashion trends and correct color line, and design for the individual. Recommended: Reading Level 1, FASH 51 or FASH 52 or evaluation by instructor. Hours: (90) 2 lect, 3 lab. CCS: Occupational Education. Transferable: CSU and private colleges. (CAN H EC 10)

FASH 10 Clothing Construction II (3 units)
Individualizing basic and designer patterns with more intricate detail and style. Alteration principles and techniques of handling fabrics. Advanced color and line techniques. Recommended: Reading Level 1. Hours: (90) 2 lect, 3 lab. CCS: Occupational Education. Transferable: CSU and private colleges.

FASH 12 Tailoring I (2 units)
Techniques of both traditional and contemporary tailoring using both hand and machine methods. Emphasizes proper fit and fine detail. Construction of a woman’s coat or jacket or a man’s sportcoat. Recommended: FASH 9, FASH 10. Hours: (72) 1 lect, 3 lab. CCS: Occupational Education. Transferable: CSU and private colleges.

FASH 13 Tailoring II (2 units)
Meets the needs of those who must construct clothing for those who are difficult to fit. Recommended: FASH 9, FASH 10. Hours: (72) 1 lect, 3 lab. CCS: Occupational Education. Transferable: CSU and private colleges.

FASH 23 Apparel Selection (0.5 unit)
Using elements of art and principles of design, the selection of apparel is discussed as it relates to the individual. Factors also considered when personalizing the wardrobe: lifestyle, profession, financial status, and the statement you want to communicate. Recommended: Reading Level 1. Hours: (9) 3 lect for 3 weeks. CCS: Occupational Education. Transferable: CSU and private colleges.

FASH 24 Textiles and Fashions (3 units)
Characteristics of fibers, yarns, fabric construction, dyes, and finishes. Emphasizes how these relate to wearability and design in today’s fashion world. Recommended: Reading Level 1. Hours: (54) 3 lect. Field trips may be required. CCS: Occupational Education. Transferable: UC, CSU and private colleges.

FASH 51 Beginning Sewing (1.5 units)
Use and care of the sewing machine and fundamental clothing construction techniques. Hours: (54) 1 lect, 2 lab. CCS: Occupational Education. Not Transferable: Associate Degree only.

FASH 52 Intermediate Sewing (1.5 units)
Advanced clothing construction techniques. Prerequisite: FASH 51 or high school clothing or evaluation by instructor. Hours: (54) 1 lect, 2 lab. CCS: Occupational Education. Not Transferable: Associate Degree only.

FASH 53 Custom Fitting and Alterations (2 units)
Basic principles of pattern alteration to achieve custom fitting of garments and of altering ready-to-wear garments. Prerequisites: FASH 51 or FASH 52 or high school clothing or evaluation by instructor. Hours: (72) 1 lect, 3 lab. CCS: Occupational Education. Not Transferable: Associate Degree only.

FASH 54 Garment Design and Construction I (2 units)
Designing a customized garment by modifying a basic pattern. Methods of individualizing clothing with structural and applied designs will be learned. Prerequisites: FASH 9 and FASH 10 or evaluation by instructor. Hours: (72) 1 lect, 3 lab. CCS: Occupational Education. Not Transferable: Associate Degree only.

FASH 55 Garment Design and Construction II (2 units)
Design adjustments necessary for constructing garments from fabrics which require special handling techniques including synthetic suedes, furs, lycras, tricot and other specialized fabrics. Prerequisites: FASH 9 and FASH 10 or evaluation by instructor. Hours: (72) 1 lect, 3 lab. CCS: Occupational Education. Not Transferable: Associate Degree only.

FASH 76h Overlock Techniques (1 unit)
Designed for students interested in updating on the industry’s newest production equip-
ment, fashion notions, and clothing construction techniques. Hours: (27) 1 lect, 2 lab for 9 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only.

FOOD SERVICE

Credit limitations may apply. For specific information see a counselor.

FD SV 30 Food Preparation and Theory (3 units)
Basic principles and scientific concepts of food preparation. Application of cookery principles to major food group classifications (i.e., vegetables, fruits, salads, sugar, cookery, cereals, beverages, salad dressings, meats, poultry, fish, milk, eggs, stocks, sauces, soups and baked products). Application of basic culinary skills and procedures which can be adapted and applied to any cooking situation. Recommended: Reading Level I. Hours: (90) 2 lect, 3 lab. CCS: Occupational Education. Transferable: CSU and private colleges. (CAN H EC 8)

FD SV 50 Introduction to the Foodservice Industry (2 units)
An overview of the foodservice industry, its history, organization and functions. Job positions, trends and issues facing the foodservice industry will be discussed. Entry skills to be taught include basic communication techniques, terminology, work simplification, time management, computational skills, safety procedures, and equipment identification and operation. Provides career and educational planning for college studies. Satisfies the 0.5 unit educational program planning requirement for graduation from Bakersfield College. Recommended: Reading Level 1. Hours: (36) 2 lect. Field trips required. CCS: Occupational Education. Not Transferable: Associate Degree only.

FD SV 51 Professional Table Service (1 unit)
A skills development course covering table settings, types of service, serving techniques, dining room equipment, sales techniques and customer relations. Demonstrations will be presented. Recommended: Reading Level 1. Hours: (18) 2 lect for 9 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only.

FD SV 51c Restaurant Operations (3 units)
Practical experience in preparation of basic restaurant menu items and in serving procedures. Students rotate through various work stations (i.e., range, pantry, backup, quantity food production, storeroom, cashier, host/hostess, and waiter/waitress). Emphasizes station organization, quality standards, portion control, sanitation/safety, customer satisfaction, and professional attitudes and behavior. Recommended: Reading Level 1. FD SV 30. Hours: (126) 1 lect, 6 lab. CCS: Occupational Education. Not Transferable: Associate Degree only.

FD SV 52 Sanitation and Safety (2 units)

FD SV 53b Basic Skills: Basic Foods (2 units)
A study of the basic principles and techniques involved in food preparation and service for child nutrition programs, including schools, child care centers, and family day care homes. Uniforms are required. Recommended: Reading Level 1. Hours: (72) 1 lect. CCS: Occupational Education. Not Transferable: Associate Degree only.

FD SV 54 Classical and International Cuisine (3 units)
Preparation, presentation, and service of classical international dishes. A la carte service, wine service and tableside preparation of various specialty food items are demonstrated and practiced. Emphasizes ethics of the profession: staffing; purchasing; menu planning and forecasting; food cost....
analysis; service techniques, and supervision. Buffet functions will be planned, prepared, and served. Students rotate through the various stations of the Renegade Room campus restaurant with special emphasis on the student chef of the day. **Recommended:** Reading Level 1, FD SV 30. **Hours:** (126) 1 lect, 6 lab. CCS: Occupational Education. **Not Transferable:** Associate Degree only.

**FD SV 55a Foodservice Production I (2.5 units)**
Basic principles and techniques involved in commercial and non-commercial food production. Emphasizes recipe standardization, equipment and sanitation/safety principles. Cookery principles relating to stocks, sauces, soups, meats, vegetables, and salads. **Prerequisite:** Concurrent enrollment in FD SV 55c or 55d. **Hours:** (45) 2.5 lect. Field trips may be required. CCS: Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly FD SV 53a.

**FD SV 55b Foodservice Production II (2.5 units)**
Basic principles and techniques involved in commercial and non-commercial food production. Emphasizes nutritional standards, equipment, and sanitation/safety principles. Cookery principles relating to poultry, fish and shellfish, sandwiches, hors d’oeuvres, breakfast cookery, and bakery. **Prerequisite:** Concurrent enrollment in FD SV 55c or 55d. **Hours:** (45) 2.5 lect. Field trips may be required. CCS: Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly part of FD SV 53a and FD SV 53c.

**FD SV 55c Foodservice Production Laboratory (2 units)**
Practical experiences in the preparation of foods typical to a dinner house/ala carte menu in the campus restaurant. Work station rotations in the kitchen and dining room with emphasis on professional skill development, work ethics and presentation skills for plate service. Uniforms are required. **Prerequisite:** Concurrent enrollment in FD SV 55a or 55b. **Hours:** (108) 6 lab. Field trips may be required. CCS: Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly FD SV 53a.

**FD SV 55d Foodservice Production Laboratory (2 units)**
Practical experiences in the preparation of buffets and garde manger in the campus restaurant. Work station rotations in the kitchen and dining room with emphasis on professional skill development, work ethics and presentation skills for buffet service. Uniforms are required. **Prerequisite:** Concurrent enrollment in FD SV 55a or 55b. **Hours:** (108) 6 lab. Field trips may be required. CCS: Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Formerly part of FD SV 53a and FD SV 53c.

**FD SV 57 Purchasing (3 units)**
Food purchasing policies and procedures with respect to budget. Introduction to the market and buyer. Basic marketing functions and selection of food products for commercial and institutional food service operations. Emphasizes developing standard purchase specifications for various food service operations and on procedures for buying, receiving, storing and issuing. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect. Field trips required. CCS: Occupational Education. **Not Transferable:** Associate Degree only.

**FD SV 58 Supervisory Techniques (3 units)**
Current methods of supervision and leadership which are applicable to the food service industry. Methods and techniques of training and supervising for overall efficiency of operation are stressed. Recruitment, selection, orientation, training and evaluation of personnel. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect. CCS: Occupational Education. **Not Transferable:** Associate Degree only.

**FD SV 59 Food Production Management (3 units)**
Provides future managers with a comprehensive orientation to production management. Addresses all aspects of planning food production activities, including menu planning and pricing, labor controls and quality food production standards. Introduces students to principles of management and computer application in foodservice operations. **Recommended:** Reading Level 1 and completion of FD SV 55a or 55b, or FD
SV 53b. **Hours:** (54) 3 lect. Field trips may be required. CCS: Occupational Education. **Not Transferable:** Associate Degree only.

**FD SV 60 Cost Control (3 units)**
Basic principles of menu planning for food service operations and essentials of merchandising food. Budget development and cost-control procedures relating to inventories, labor, production and service, and sales income. Use of simple mathematics to solve problems of food management, forecasting, and preparation of financial statements. Emphasizes the application of marketing and advertising principles for food service operations. **Recommended:** Reading Level 1, eligibility for MATH 50, FD SV 57. **Hours:** (54) 3 lect. CCS: Occupational Education. **Not Transferable:** Associate Degree only.

**FD SV 64a Health Care Food Service Operations I (3 units)**
Role and responsibilities of the dietary manager and/or dietetic service supervisor in managing health care and community food service operations. Application of standards, principles, and techniques of normal nutrition, therapeutic nutrition, food production and service. Management of supplies, equipment use, sanitation and safety. Provides 90 hours directed work experience in approved health care facilities. **Recommended:** Reading Level 1, NUTR 10, FD SV 30 and FD SV 52 (may be taken concurrently). **Hours:** (126) 2 lect, 5 directed work experience. CCS: Occupational Education. **Not Transferable:** Associate Degree only.

**FD SV 64b Health Care Food Service Operations II (3 units)**
Role and responsibilities of the dietary manager, and/or dietetic service supervisor in health care and community food service operations. Application of standards, principles and techniques of nutritional assessment; diet modification; patient nutrition education; leadership and human relations; patient and inter-departmental communications; personnel selection and supervision; fiscal management and evaluation of dietary services. Provides 90 hours directed work experience in approved health care facilities. **Recommended:** Reading Level 1, NUTR 10, FD SV 30 and FD SV 52 (may be taken concurrently). **Hours:** (126) 2 lect, 5 directed work experience. CCS: Occupational Education. **Not Transferable:** Associate Degree only.

**FD SV 66 Menu Design for Child Nutrition Programs (3 units)**
Overview of menu planning for child nutrition programs including reimbursable meal patterns, student preferences, basic nutrition and menu planning principles, menu development techniques, and menu management procedures. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect. CCS: Occupational Education. **Not Transferable:** Associate Degree only.

**FD SV 67 Child Nutrition Program Management (3 units)**
Overview of challenges and responsibilities in child nutrition programs; marketing strategies; federal and state regulations and guidelines; nutrition issues and nutrition education; menu design procedures and the menu production worksheet; food procurement trends; cost control; communication concepts, food production standards; employee instructional methods, and career planning. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect. CCS: Occupational Education. **Not Transferable:** Associate Degree only.

**FD SV 70a Professional Baking (0.5 unit)**
Commercial production of baked products including yeast breads, danish pastry, puff pastry, candies, European-style tortes and cakes, fruit tarts and mousses. Decorative work and product presentation are demonstrated. Uniforms are required. A fee is charged; check class schedule for correct amount. **Recommended:** Reading Level 1, FD SV 55a or 55b and FD SV 55c or 55d. **Hours:** (27) 3 lab for 9 weeks. CCS: Occupational Education. **Not Transferable:** Associate Degree only.
INT D 1 Introduction to Interior Design (1 unit)
Familiarization with the professional field of interior design and the design process.
Overview of educational programs, employment opportunities and career planning.
Satisfies the 0.5 unit counseling requirement for graduation from Bakersfield College.
Hours: (18) 2 lect for 9 weeks. CCS: Occupational Education. Transferable: CSU and private colleges.

INT D 12 Careers: Professional Practices (3 units)
Interior design, decoration and related occupations. Includes business methods, techniques, and professional skills required for employment, professional ethics and other practices necessary for success. Hours: (54) 3 lect. CCS: Occupational Education. Transferable: CSU and private colleges.

INT D 14 Design Presentation Techniques (2 units)
Basic concepts and techniques for interior design presentations. Application of design principles in visual communication, including architectural graphics and product presentation boards. Hours: (36) 2 lect. Field trips required. CCS: Occupational Education. Transferable: CSU and private colleges.

INT D 15a Elements and Principles of Interior Design (3 units)
Design, theory and application. Identification and application of the elements and principles of design. Emphasis on organized selection and arrangements for beauty, comfort and care as adapted to user needs.
Prerequisite: Concurrent enrollment in INT D 14. Hours: (54) 3 lect. Field trips may be required. CCS: Occupational Education. Transferable: CSU and private colleges.

INT D 15b Materials and Components of Interior Design (3 units)

INT D 16 Measurements and Calculations (2 units)
Installation methods and problems. Accurate measurement and calculation of materials and costs involved in design treatments for walls, windows, floors, furniture, bedding, and other soft goods. Hours: (36) 2 lect. Field trips required. CCS: Occupational Education. Transferable: CSU and private colleges.

INT D 21a Interior Drawing (1.5 units)
Drafting of floor design, interior elevations, and sections for working with craftsmen including presentation to the client. Prerequisite: INT D 1 or ARCH 1. Recommended: Reading Level 1. Hours: (54) 1 lect, 2 lab. CCS: Occupational Education. Transferable: CSU and private colleges.

INT D 21b Interior Drawing (1.5 units)
Basic drawing and rendering techniques for presenting interiors to design clientele.
Prerequisite: INT D 21a. Hours: (54) 1 lect, 2 lab. CCS: Occupational Education. Transferable: CSU and private colleges.

INT D 22 Housing and Environmental Design (3 units)
Environmental and socio-economic approach to total home design. Physical site, landscape, architectural style, house plans, space planning, construction and costs. Hours: (54) 3 lect. CCS: Occupational Education. Transferable: CSU and private colleges.

INT D 23a Furniture Styles (3 units)
Styles of architecture and furnishings from antiquity to the English period. Middle Ages, Italian Renaissance, Hispanic, French and English periods emphasized. Development of
FAMILY AND CONSUMER EDUCATION

design and adaptation to contemporary use.  
**Recommended:** Reading Level 1. **Hours:** (54) 3 lect. Field trips may be required. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**INT D 23b Furniture Styles (3 units)**
Styles of architecture and furnishings from Early American period design to present day. Early American, modern and ethnic styles emphasized. Development of design and adaptation to contemporary use. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect. Field trips may be required. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**INT D 24 Textiles (3 units)**
Beginning textiles. Classification of fibers, yarns, fabric structures, dyes and finishes. Selection, use, and care of fabrics in relation to consumer needs. Emphasis will be on design, serviceability, and are related to interior design needs. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect.  
**Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.  
(CAN H EC 6)

**INT D 75 Topics in Interior Design**  
(0.5–2 units, limit 8 units)  
**Hours:** (9-36) Minimum of 9 hours per half unit of credit. **Repeat:** Maximum of 8 units. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**INT D 75a Use of Accessories (1 unit)**

**INT D 75b Interior Lighting (2 units)**

**INT D 75c Commercial Specifications (1 unit)**

**INT D 75g Retailing and Merchandising in Interior Design (1 unit)**

NUTRITION

Credit limitations may apply. For specific information see a counselor.

**NUTR 10 Elementary Nutrition (3 units)**
Principles of nutrition and their application to diets under normal conditions. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. (CAN H EC 2)
Foreign Languages

American Sign Language
English Courses As A Second Language
French
Japanese
German
Spanish
ASSOCIATE IN ARTS DEGREE PROGRAMS
Bakersfield College offers the Associate in Arts Degree in the following areas: American Sign Language (ASL), French, German and Spanish.

AMERICAN SIGN LANGUAGE
The major in American Sign Language provides a linguistic and grammatical study of the language and in-depth look into the culture of deaf people. Students should check with the receiving institution to ensure transferability of ASL courses as foreign language credit.

Minimum units required in related disciplines: 21

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ASL 1</td>
<td>Beginning American Sign Language</td>
<td>4.0</td>
</tr>
<tr>
<td>ASL 2</td>
<td>Intermediate American Sign Language</td>
<td>4.0</td>
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<tr>
<td>ASL 3</td>
<td>Advanced American Sign Language</td>
<td>4.0</td>
</tr>
<tr>
<td>ASL 4 or</td>
<td>Sign Language Interpreting</td>
<td>3.0</td>
</tr>
<tr>
<td>CH DV 13a or</td>
<td>Child Growth and Development</td>
<td>3.0</td>
</tr>
<tr>
<td>THEAT 1</td>
<td>Introduction to Acting</td>
<td>3.0</td>
</tr>
<tr>
<td>ASL 5 or</td>
<td>Advanced Sign Language Interpreting</td>
<td>3.0</td>
</tr>
<tr>
<td>CH DV 13a or</td>
<td>Child Growth and Development</td>
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</tr>
<tr>
<td>THEAT 1</td>
<td>Introduction to Acting</td>
<td>3.0</td>
</tr>
<tr>
<td>ASL 6</td>
<td>American Deaf Culture</td>
<td>3.0</td>
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</tbody>
</table>

Note: Deaf students may use THEAT 1 and CH DV 13a in place of ASL 4 and ASL 5.

FRENCH
Required courses for the Associate in Arts Degree in French:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>FREN 1</td>
<td>Elementary French</td>
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<tr>
<td>FREN 2</td>
<td>Elementary French</td>
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<tr>
<td>FREN 3</td>
<td>Intermediate French</td>
<td>4.0</td>
</tr>
<tr>
<td>FREN 4</td>
<td>Intermediate French</td>
<td>4.0</td>
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GERMAN
Required courses for the Associate in Arts Degree in German:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>GERM 1ab</td>
<td>Elementary German</td>
<td>5.0</td>
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<tr>
<td>GERM 2</td>
<td>Elementary German</td>
<td>5.0</td>
</tr>
<tr>
<td>GERM 3</td>
<td>Intermediate German</td>
<td>4.0</td>
</tr>
<tr>
<td>GERM 4</td>
<td>Intermediate German</td>
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</tbody>
</table>

SPANISH
Required courses for the Associate in Arts Degree in Spanish:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>SPAN 1ab</td>
<td>Elementary Spanish</td>
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</tr>
<tr>
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<td>SPAN 3</td>
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</tr>
<tr>
<td>SPAN 4</td>
<td>Intermediate Spanish</td>
<td>4.0</td>
</tr>
</tbody>
</table>

The above courses are in addition to the Bakersfield College graduation requirements for the Associate in Arts Degree. Please consult the section in this catalog under “Graduation” for specific requirements.

ENGLISH AS A SECOND LANGUAGE (ESL)
Bakersfield College offers a complete program of courses for the ESL student, including English, speech, reading and counseling courses at the intermediate and advanced levels.

A comprehensive testing program has been especially designed to ensure that all foreign students are placed in the courses which will best suit their needs. All ESL students are urged to take the Bakersfield College English as a Second Language Placement Test.

An International Student Counselor is available in the International Student Center to assist with scheduling of courses and to discuss academic as well as personal problems. All international students and other students for whom English is a second language are urged to visit the center and take advantage of the services offered there.
COURSE DESCRIPTIONS
The following abbreviations are commonly used in the course descriptions: lect lecture; lab laboratory; demo demonstration; Repeat repeatability (see policy on course repetition); CCS Course Classification System. Hours given in parentheses are total hours for the course. Hours lecture, lab, etc., are hours required per week usually. Prerequisites are expressed as minimum requirements. See page 47 for a complete explanation. (CSU) indicates transferable to California State Universities; (UC) indicates Transferable to University of California.

AMERICAN SIGN LANGUAGE
ASL 1 Beginning American Sign Language (4 units)

ASL 2 Intermediate Sign Language (4 units)

ASL 3 Advanced American Sign Language (4 units)
Emphasizes advanced conversational fluency in ASL; followed by intensive work on comprehensive skills and grammatical structure. Instruction in conceptual accuracy and translation of English idioms into American Sign Language. Discussion of various aspects of American deaf culture and dynamics of the deaf community. Prerequisite: ASL 2. Recommended: None. Hours: (108) 3 lect, 3 lab. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

ASL 4 Sign Language Interpreting (3 units)

ASL 5 Advanced Sign Language Interpreting (3 units)
Refining and developing the student’s receptive and expressive skills in interpreting for deaf individuals. Practicum in sign-to-voice interpreting along with role playing in a variety of interpreting situations. Further emphasizes conceptual accuracy and appropriate vocalization used in translating from ASL to spoken English. Prerequisite: ASL 4. Recommended: None. Hours: (54) 3 lect. Field trips required. Repeat: 1. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges.

ASL 6 American Deaf Culture (3 units)
Introduction to the philosophical components of American deaf culture, such as types and causes of deafness, and the deaf community as defined according to language, values, culture, and attitudes. Included is a study of deaf advocacy, services, education, and legal rights of deaf people. Prerequisite: ASL 1. Recommended: None. Hours: (54) 3 lect/disc. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges.

ASL 55 Sign and Song (3 units)
Instruction in analyzing and translating lyrics from music into visual concepts. Develops sign clarity and mime techniques. The class will present a community performance incorporating American Sign Language.
FOREIGN LANGUAGES


ASL 56 Selected Topics in ASL (1 unit) Specialized vocabulary in American Sign Language. Emphasis is on vocabulary used in practical and occupational settings. Prerequisite: ASL 1. Recommended: None. Hours: (18) 3 lect for 6 weeks. Repeat: 2 each. CCS: Precollegiate — discipline specific. Not Transferable: Not degree applicable.

ASL 56a Religious Signs
ASL 56b Medical Signs
ASL 56c Human Sexuality Signs
ASL 56d Social Service Signs
ASL 56e Law Enforcement Signs
ASL 56f Educational Signs

ENGLISH AS A SECOND LANGUAGE

ESL 1 College Composition (4 units) Composition course for foreign/bilingual students which provides extensive practice in rhetorical modes of composition and persuasion as well as comprehension and analysis of reading. Stresses both organization and in-depth essay development. Satisfies the General Education requirement in written English for the AA and AS degrees and prepares transfer students for ENGL 1a. Prerequisites: ESL 2 or ENGL 60 with a minimum grade of “C” or “CR.” Hours: (72) 4 lect. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges. Note: Elective credit only. CSU policy is under review.

ESL 2 Advanced Grammar and Composition (4 units) Writing course for foreign/bilingual students at the advanced level of English who require grammar and composition skills necessary to take essay exams, improve personal and professional writing, or prepare for ESL 1 or ENGL 1. (A minimum grade of “C” in ESL 2 will satisfy prerequisite for ESL 1 and ENGL 1.) Prerequisites: ESL 3 or AC DV 68 with a minimum grade of “C.” Hours: (72) 4 lect. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges. Note: Elective credit only. CSU policy is under review.

ESL 3 Intermediate Grammar and Composition (4 units) Writing course for foreign/bilingual students at the high-intermediate level of English who require grammar and composition skills necessary to take essay exams, improve personal written communication, or prepare for ESL 2, ESL 1, or ENGL 1. Recommended: Placement based on the Bakersfield College English as a Second Language Placement Test, ESL 55ab with a minimum grade of “C.” Hours: (72) 4 lect. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges. Note: Elective credit only. CSU policy is under review.

ESL 11 Tools for College Survival (2 units) Increases students’ probability of success in college by helping students obtain skills necessary to reach their educational objective. Provides the opportunity for students to learn and adopt skills proven to promote success in college, including study skills and personal life skills. Also includes graduation requirements as well as admission and transfer requirements. Satisfies the 0.5 unit educational planning requirement for graduation from Bakersfield College. Recommended: Reading Level 1. Hours: (40.5) 3 lect for 13.5 weeks. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges. Note: Not open to students with credit in ST DV 11. Elective credit only. CSU policy is under review.

ESL 21 Accent Improvement (3 units) Advanced pronunciation class for foreign students who are basically fluent in English, with emphasis on dialect or accents. This may include bicultural American students and foreign-born students. Recommended: Placement based on Bakersfield College English as a Second Language Placement Test or ESL 75 and ESL 71 series. Hours:
FOREIGN LANGUAGES

(54) 3 lect/disc. Repeat: 1. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: Not open to students with credit in SPCH 57ab twice. Elective credit only. CSU policy is under review.

ESL 22 Group Discussion and Conversation (3 units)
Individual prescriptive training for students with problems in pronunciation, stress and intonation in spontaneous speech samples. Prerequisite: ESL 21. Hours: (54) 3 lect/disc. Repeat: 1. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges. Note: Not open to students with credit in SPCH 57ab twice. Elective credit only. CSU policy is under review.

ESL 31 Advanced Reading and Literature (3 units)
Reading course for advanced foreign/bilingual students who require critical reading skills and vocabulary necessary to read and comprehend college level material in English literature. Recommended: Placement based on the Bakersfield College English as a Second Language Placement Test, ESL 51 with a minimum grade of “C,” Reading Level 2, or evaluation by instructor, and ESL 3 with a minimum grade of “C” or eligibility for ESL 2 or ENGL 60. Hours: (54) 3 lect/disc. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges. Note: Elective credit only. CSU policy is under review.

ESL 51 High-Intermediate Reading and Vocabulary (4 units)
Recommended for foreign and bilingual students who need to improve reading comprehension and build vocabulary in English. Emphasis is on looking for main ideas, summarizing, making inferences, building vocabulary, and using correct patterns of grammar. Recommended: Placement based on Bakersfield College English as a Second Language Placement Test or ESL 75cd or recommendation made by any Bakersfield College English instructor. Hours: (54) 3 lect. Repeat: 1. CCS: Precollegiate — basic skills. Not Transferable: Not degree applicable.

ESL 55ab Preparation for Academic Writing (4 units)

ESL 61 Low-Intermediate Reading and Vocabulary (4 units)
Recommended for foreign and bilingual students who need to improve reading comprehension and build their vocabulary in English. Emphasis is on looking for main ideas, summarizing, making inferences, building vocabulary, and using correct patterns of grammar. Prerequisite: ESL 75cd. Hours: (72) 4 lect/disc. CCS: Precollegiate — basic skills. Not Transferable: Not degree applicable.

ESL 65 Intensive Grammar Drill (3 units)
Recommended for foreign and bicultural American students who need extra help with verbs, articles and prepositions. Emphasizes intensive oral and written drill. Recommended: Placement based on the Bakersfield College English as a Second Language Placement Test or ESL 75ab, ESL 75cd or evaluation by any Bakersfield College English instructor. Hours: (54) 3 lect. Repeat: 1. CCS: Precollegiate — basic skills. Not Transferable: Not degree applicable.

ESL 71ab Basic Listening and Speaking I (4 units)
ESL 71cd Basic Listening and Speaking II (4 units)
71c–71d (2–2) equivalent to 71cd.
Improves the pronunciation and intonation patterns of the non-native English speaking person. Aural comprehension in everyday conversational speech and classroom lectures will also be stressed. Prerequisite: ESL 75ab.
Hours: (36-36) 4 lec/disc. Repeat: 1. CCS: Precollege — basic skills. Not Transferable: Not degree applicable.

ESL 75ab Basic Grammar and Syntax I (5 units)
75a–75b (2.5–2.5) equivalent to 75ab.

ESL 75cd Basic Grammar and Syntax II (5 units)
75c–75d (2.5–2.5) equivalent to 75cd
Continuation of ESL 75ab with more complex intermediate grammar and writing. Covers more advanced uses of the structures of English grammar and continues to build writing skills and vocabulary. Prerequisite: ESL 75ab.
Hours: (45-45) 5 lec/disc. Repeat: 1. CCS: Precollege — basic skills. Not Transferable: Not degree applicable.

FREN 2 Elementary French (5 units)
Continued study of French language and culture using the “planned immersion” approach begun in FREN 1. Listening comprehension and pronunciation continue to be emphasized, along with the development of writing skills. Requires practice with audio-tape program outside of regular class time. Prerequisite: FREN 1 or two years of high school French. Hours: (90) 5 hours. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN FREN 2)

FREN 3 Intermediate French (4 units)
Reading selections present modern French writers and aspects of French culture. Continues the multi-media program begun in FREN 1 and FREN 2 with increased emphasis on reading and writing. Requires practice with audio-tape program outside of class. Prerequisite: FREN 2, three years of high school French or evaluation by instructor. Hours: (72) 4 hours. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

FREN 4 Intermediate French (4 units)
Grammar review and presentation of some of the more complex structures. Emphasis is on reading and writing along with oral communication. Requires practice with audio-tape program outside of class. Completes the multi-media program for college French. Prerequisite: FREN 3 or four years of high school French or evaluation by instructor. Hours: (72) 4 hours. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

GERMAN

GERM 1ab Elementary German (5 units)
1a–1b (2.5–2.5) equivalent to 1ab.
Basic structures and vocabulary. Emphasizes accurate understanding, reading, writing and speaking German. Requires practice with audio-tape program outside of class. For students with no previous German. Prerequisite: 1b: GERM 1a. Recommended: Reading Level 1. Hours: (90) 5 hours. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN GERM 2)
GERM 2 Elementary German (5 units)
German language and culture with continued emphasis on pronunciation, conversation, listening comprehension and writing skills. Requires practice with audio tapes outside of regular class time. **Prerequisite:** GERM 1ab or two years of high school German. **Recommended:** Reading Level 1. **Hours:** (90) 5 lect. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

GERM 3 Intermediate German (4 units)
A review of grammatical structures presented in GERM 1ab and GERM 2 with emphasis on more complex structures. Continued emphasis on the four language skills of listening, speaking, reading, and writing. More extensive practice in conversation about culture and customs of German-speaking countries. Requires practice with audio tapes outside of class. **Prerequisite:** GERM 2 or three years of high school German or evaluation by instructor. **Recommended:** Reading Level 1, English Level 1. **Hours:** (72) 4 hours. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

GERM 4 Intermediate German (4 units)
Continued practice in the four language skills of listening, speaking, reading, and writing and review of grammatical structures begun in GERM 3 with emphasis on complex structures such as passive voice and subjunctive mood. Requires practice with audio tapes outside of class. **Prerequisite:** GERM 3 or four years of high school German or evaluation by instructor. **Recommended:** Reading Level 1, English Level 1. **Hours:** (72) 4 hours. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

JAPANESE

JPN 1 Elementary Japanese (5 units)
Introduction to Japanese language and culture. Special emphasis is on speaking and understanding Japanese along with mastering elementary grammar and compositions while learning the characters of Japanese alphabets. Requires practice with audio-tape program outside of class. **Recommended:** Reading Level 1. **Hours:** (90) 5 lect. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

JPN 2 Elementary Japanese (5 units)
Continuing of elementary course introducing Japanese language and culture. Special emphasis on speaking and understanding Japanese along with mastering elementary grammar and composition while learning the characters of Japanese alphabets. Requires practice with audio-tape program outside of class. **Recommended:** JPN 1. **Hours:** (90) 5 lect. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

JPN 52a Elementary Conversational Japanese (2 units)
Oral practice of the language. Emphasizes pronunciation, correct usage, and common idiomatic speech. Content designed for students who wish to acquire the basic skills of spoken Japanese. **Hours:** (54) 3 lect. **Repeat:** 1. CCS: Liberal Arts & Sciences. **Not Transferable:** Not degree applicable.

SPANISH

SPAN 1ab Elementary Spanish (5 units)
1a–1b (2.5–2.5) equivalent to 1ab. Introduction to the Spanish language and culture by means of a program that involves video, audio, and print media into an integrated method of "planned immersion." Emphasis is on listening comprehension and oral production. **Prerequisite:** 1b: SPAN 1a. **Recommended:** Reading Level 1. **Hours:** (54-90) 1a: (54) 3 hrs/week; 1b: (54) 3 hrs/week; lab: (90) 5 hrs/week. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. (CAN SPAN 2)

SPAN 2ab Elementary Spanish (5 units)
2a–2b (2.5–2.5) equivalent to 2ab. Continued study of Spanish language and outline using the "planned immersion" approach begun in SPAN 1ab. Listening comprehension continues to be emphasized along with the development of oral production and writing. **Prerequisite:** SPAN 1ab or two years of high school Spanish, 2b: SPAN 2a.
HIGH LANGUAGE

Hours: (54-90) 2a: (54) 3 hrs/week; 2b: (54) 3 hrs/week; 2ab (90) 5 hrs/week. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN SPAN 4)

SPAN 3 Intermediate Spanish (4 units)
Reading selections of Spanish and Latin American authors including essays, short stories, plays and poetry with the purpose of nourishing an understanding of the Spanish culture and language. Intensive grammar review of the Spanish language. Prerequisite: SPAN 2ab. Hours: (72) 4 hours. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN SPAN 4)

SPAN 4 Intermediate Spanish (4 units)
Continued advanced readings from Spanish and Latin American authors, and continue intensive grammar review of the Spanish language preparing students for upper division work in literature and language. Prerequisite: SPAN 3. Hours: (72) 4 hours. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN SPAN 8)

SPAN 10 Spanish for Native Speakers (4 units)
An intermediate course, equivalent to SPAN 3 in content, designed to fulfill the particular needs of bilingual students with special emphasis on the grammar of the language as well as the development of reading and writing. Special attention will be given to correct pronunciation. Recommended: Native speaker or equivalent. Hours: (72) 4 hours. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

SPAN 52a–52b Elementary Conversational Spanish (2–2 units)
Designed for those who wish to develop a basic understanding of conversational Spanish. Emphasizes pronunciation, correct usage and common idiomatic speech. Prerequisite: 52b: SPAN 52a or equivalent. Hours: (54-54) 3 hours. Repeat: 1. CCS: Liberal Arts & Sciences. Not Transferable: Not degree applicable.

SPAN 52c–52d Intermediate Conversational Spanish (2–2 units)
Designed to present continuity in the study of conversational Spanish. Advanced practice in conversation, usage and grammar. Prerequisite: 52c: SPAN 52b or evaluation by instructor. 52d: SPAN 52c or evaluation by instructor. Hours: (54-54) 3 hours. Repeat: 1. CCS: Liberal Arts & Sciences. Not Transferable: Not degree applicable.

SPAN 52e–52f Advanced Conversational Spanish (2–2 units)
For students who have achieved the “survival level” in everyday spoken Spanish and who want to continue to improve their skills in conversation, expand their working vocabulary, and perfect their comprehension of the language as used by native speakers. Prerequisite: SPAN 52d or evaluation by instructor. Hours: (54-54) 3 hours. Repeat: 1. CCS: Liberal Arts & Sciences. Not Transferable: Not degree applicable.

SPAN 54 Spanish for Health Professionals (2 units)
The student will develop speaking, listening and reading skills in Spanish appropriate for carrying on simple exchanges in medical/health settings. Emphasis will be on oral drill and practice in simulated employee-patient situations. Hours: (54) 3 hours. Repeat: 1. CCS: Occupational Education. Not Transferable: Associate Degree only.

SPAN 55 Spanish for Law Enforcement Personnel (2 units)
Presenting speaking, listening, reading and writing skills in Spanish. Communication in various situations which law enforcement personnel encounters in the course of their work will be offered. Emphasis will be on oral drill and practice in simulated situations. Hours: (54) 3 hours. Repeat: 1. CCS: Occupational Education. Not Transferable: Not degree applicable.
Health & Physical Education

Athletics
Health Education
Physical Education
The exact program to be undertaken by a student in the physical education major at Bakersfield College depends on the requirements of the transfer institution. Students must comply with the requirements as shown in the catalog under Graduation Requirements. Counselors/advisors will assist the student in planning for a transfer program.

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PH ED 40</td>
<td>Introduction to Physical Education</td>
<td>2.0</td>
</tr>
<tr>
<td>ANAT 1</td>
<td>Human Anatomy</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYSL 1</td>
<td>Human Physiology</td>
<td>5.0</td>
</tr>
<tr>
<td>PH ED 31</td>
<td>Standard First Aid</td>
<td>1.0</td>
</tr>
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</table>

Other Suggested Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PH ED 39a</td>
<td>Prevention and Care of Athletic Injuries</td>
<td>3.0</td>
</tr>
</tbody>
</table>

At least four units in Physical Education activity classes should be completed.

RECREATION

Students majoring in recreation at Bakersfield College should consult the catalog of the four-year college to which they intend to transfer. Specific areas of concentration in the major will determine the lower-division courses required.

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PH ED 41</td>
<td>Recreation Leadership</td>
<td>2.0</td>
</tr>
<tr>
<td>PH ED 31</td>
<td>Standard First Aid</td>
<td>1.0</td>
</tr>
</tbody>
</table>

COURSE DESCRIPTIONS

The following abbreviations are commonly used in the course descriptions: lect lecture; lab laboratory; demo demonstration; Repeat repeatability (see policy on course repetition); CCS Course Classification System. Hours given in parentheses are total hours for the course. Hours lecture, lab, etc., are hours required per week usually. Prerequisites are expressed as minimum requirements. See page 47 for a complete explanation. (CSU) indicates transferable to California State Universities; (UC) indicates Transferable to University of California.

HEALTH EDUCATION

Credit limitations may apply. For specific information see a counselor.

H ED 1 Principles of Health Education (2 units)

H ED 5 Drug Awareness—Substance Use/Abuse (1 unit)
History of drug use in athletics, including short and long term effects. The pros and cons of drug screening and/or testing programs—its legal implications. Hours: (18) 2 lect for 9 weeks. CCS: Liberal Arts & Sciences. Transferable: CU and private colleges.

H ED 248 Cooperative Work Experience Education (1-8 units, limit 16 units)
See W EXP 248 description.

H ED 249 Cooperative Work Experience Education (1-4 units, limit 16 units)
See W EXP 249 description.

PHYSICAL EDUCATION

Credit limitations may apply. For specific information see a counselor.

Physical education activity courses are designed to enhance the student’s understanding of the development of the individual as an integrated
HEALTH AND PHYSICAL EDUCATION

physiological, psychological, and social being. The courses include a study of how internal and external influences interact in human development and behavior within the context of the human life span.

PH ED 3adp Through 9

Hours: (18-36) 2 hours participation unless otherwise indicated. Repeat: Activity courses, 3adp through 9, may be repeated 3 times. Example: 6T (Tennis)—A student may take four tennis classes—all four beginning or intermediate or advanced or any combination of those equaling four enrollments.


PH ED 3adp Adaptive Physical Education

Topics (1 unit each)
This series is intended for students with physical challenges. Individualized fitness programs for the physically challenged with group activities designed to involve everyone. Repeat: 3. Repetitions of adaptive physical education are allowed (beyond three) provided the student participates in at least one additional credit course that is not a physical education class and makes progress toward the stated educational goal as documented in the student's educational plan.


PH ED 3adp Adaptive Physical Education

PH ED 3ads Adaptive Physical Education, Swimming

PH ED 5 Team Activities for Women (1 unit)
5wsb—Softball.

PH ED 6 Coeducational Team and Individual Activities (1 unit)
6a—archery, 6b—bowling, 6bad—badminton, 6bb—basketball, 6blb—beginning ballet (NOTE: Not open to students with credit in DANCE 6blb), 6fcx—fitness center, 6g—golf, 6gi—intermediate golf, 6hx—health exercises, 6jd—jazz dance (NOTE: Not open to students with credit in DANCE 6jd), 6lg—life guarding, 6md—modern dance (NOTE: Not open to students with credit in DANCE 6md), 6pf—physical fitness, 6r—racquetball, 6s—swimming, 6sc—soccer, 6sfx—swim and stay fit, *6sk—beginning skiing (snow), 6skc—ski conditioning, *6ski—intermediate skiing (snow), 6t—tennis, 6ti—intermediate tennis, 6v—volleyball, 6vi—intermediate volleyball, 6wsi—water safety, 6wt—Weight Training. Prerequisite: 6Lg and 6wsi: Red Cross certificate.

*One ski trip during semester required.

PH ED 7 Advanced Team and Individual Activities for Men (1 unit)
7b—advanced baseball, 7fb—advanced football, 7w—advanced wrestling. Recommended: Completion of a basic course in the activity.

PH ED 9 Advanced Team and Individual Coeducational Activities (1 unit)
9s—advanced swimming, *9sk—advanced snow skiing, 9t—advanced tennis, 9tr—advanced track. Recommended: Completion of a basic course in the activity.

*One ski trip during semester required.

INTERCOLLEGIATE ATHLETICS

Credit limitations may apply. For specific information see a counselor.

Athletic Code Eligibility Requirements
An athlete must be continuously enrolled in a minimum of 12 units during the season of competition. Those competing in a sport must successfully complete 24 units to be eligible for a second season of competition. A 2.0 grade point average must be maintained to be eligible to participate.

Intercollegiate Competition for Men.
Prerequisite: Must meet athletic code eligibility requirements. Hours: (180) 10 hours by arrangement (usually 2 hours per day). Field trips may be required. Repeat: Athletic courses, 10 through 20, may be repeated twice unless otherwise indicated.

CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: May be substituted for physical education requirement for graduation.
HEALTH AND PHYSICAL EDUCATION

PH ED 10 Intercollegiate Football (2 units)
PH ED 11 Intercollegiate Basketball
(Fall-2 units; Spring-1 unit)
Repeat: 3.
PH ED 12 Intercollegiate Track and Field
(2 units)
PH ED 13 Intercollegiate Tennis (2 units)
PH ED 14 Intercollegiate Baseball (2 units)
PH ED 16 Intercollegiate Golf (2 units)
PH ED 17 Intercollegiate Cross-Country
(2 units)
PH ED 18 Intercollegiate Soccer (2 units)
PH ED 20 Intercollegiate Wrestling (2 units)

Intercollegiate Competition for Women
Prerequisite: Must meet athletic code eligibility requirements. Hours: (180) 10 hours by arrangement (usually 2 hours per day). Field trips may be required. Repeat: Athletic courses, 21 through 29, may be repeated twice unless otherwise indicated. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: May be substituted for physical education requirements for graduation.

PH ED 22 Women's Intercollegiate Tennis
(2 units)
PH ED 23 Women's Intercollegiate Soccer
(2 units)
PH ED 25 Women's Intercollegiate Volleyball (2 units)
PH ED 26 Women's Intercollegiate Track and Field (2 units)
Repeat: 3.
PH ED 27 Women's Intercollegiate Cross-Country (2 units)
PH ED 28 Women's Intercollegiate Basketball
(Fall-2 units; Spring-1 unit)
Repeat: 3.
PH ED 29 Women's Intercollegiate Softball (2 units)
PH ED 31 Standard First Aid (1 unit)
Administering first aid in emergency and accident situations. Includes wounds and their care, shock, artificial respiration, C.P.R., injuries, burns, effects of heat and cold and the transportation of the injured. Upon successful completion of the course each student will qualify for an American Red Cross Standard First Aid card. Hours: (18) 2 lect/disc for 9 weeks. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

PH ED 32 Shape Up (1-3 units)
Health program emphasizing health evaluation, fitness assessment, cardiovascular exercise, muscle toning, nutrition information and weight control. Hours: (36-108) 1 lect, 5 lab participation. Repeat: 3 or until a maximum of 12 units is reached. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges.

PH ED 33 Men's and Women's Intercollegiate Swimming (2 units)
Intercollegiate Coeducational Competition
Prerequisite: Must meet athletic code eligibility requirements. Hours: (180) 10 hours by arrangement (usually 2 hours per day). Field trips may be required. Repeat: 2. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: May be substituted for physical education requirement for graduation.

PH ED 39a Prevention and Care of Athletic Injuries (3 units)
Evaluation, rehabilitation and prevention of athletic injuries. Various physical therapy modalities will be discussed. The athletic trainer will properly advise students who take this course of limitations and proper skills applications. Recommended: ANAT 1. Hours: (90) 2 lect, 3 lab. Field trip required. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.
PH ED 39b Advanced Care and Prevention of Athletic Injuries (3 units)
Evaluation, rehabilitation, and prevention of athletic injuries will be covered with additional exposure to various physical therapy modalities and prevention of injuries. The athletic trainer will properly advise students who take this course of limitations and proper skills applications. Prerequisite: PE 39a, ANAT 1 (may be taken concurrently) or evaluation by instructor. Recommended: Reading Level 1. Hours: (90) 2 lect, 3 lab by arrangement. Field trips required. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

PH ED 40 Introduction to Physical Education (2 units)
Exploring employment opportunities in the field of physical education, history and teaching of physical education and the contribution made to the mental, social and physical well-being of society. Recommended for students pursuing a major or minor in Physical Education or Recreation. Recommended: Reading Level 1. Hours: (36) 2 lect/disc. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

PH ED 41 Recreation Leadership (2 units)
Survey of employment opportunities in the field of recreation. Students will learn the meaning and scope of recreation leadership, the problems of organization, types of activities, and elements of leadership. Recommended for students pursuing a major or minor in Physical Education or Recreation. Hours: (36) 2 lect/disc. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges.

PH ED 45 Theory of Football (2 units)
Designed to give students an understanding of the principles of offensive and defensive football and to prepare physical education majors for coaching. Prerequisite: Concurrent enrollment in PH ED 10. Hours: (90) 5 lect. Repeat: 2. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

PH ED 52 Cardiopulmonary Resuscitation (0.5 unit)
Certification or recertification in CPR. Students successfully completing course will receive Red Cross Certification. Hours: (9) 4.5 lect/disc for 2 weeks. Repeat: 3. CCS: Liberal Arts & Sciences. Not Transferable: Associate Degree only.

PH ED 55 Introduction to Coaching (2 units)
Independent & Special Studies
INDEPENDENT AND SPECIAL STUDIES

COURSE DESCRIPTIONS

The following abbreviations are commonly used in the course descriptions: lect lecture; lab laboratory; demo demonstration; Repeat repeatability (see policy on course repetition); CCS Course Classification System. Hours given in parentheses are total hours for the course. Hours lecture, lab, etc., are hours required per week usually. Prerequisites are expressed as minimum requirements. See page 47 for a complete explanation. (CSU) indicates transferable to California State Universities; (UC) indicates Transferable to University of California.

Credit limitations may apply. For specific information see a counselor.

ANTH 21abcd Special Projects
(1-1-1-1 unit, limit 4 units)
Anthropology assistant and tutor. Work primarily in a tutorial relationship with students enrolled in a course which the enrollee has completed with a high level of mastery.
Prerequisites: ANTH 1 with a grade of “B” and completion of the course in which the student will be assisting with a grade of “B.”
Hours: (54-216) 3-12 lab by arrangement.
Repeat: 3, or until a maximum of 4 units is reached. CCS: Liberal Arts & Sciences. Transferable: CSU and selected institutions.

ART 29 Special Studies in Art
(0.5-3 units, limit 9 units)
Selected advanced projects with class content and unit credit to be determined by instructor and student.
Prerequisite: Evaluation by instructor.
Recommended: Reading Level 1.
Hours: (27-162) .5 lect, 1 studio to 3 lect, 6 studio.
Repeat: 3, or until a maximum of 9 units is reached. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

BIOL 21 Special Projects in Biology
(1-2 units, limit 4 units)
Individually directed work in biology, biological preparation, and development of specialized collection materials.
Prerequisites: Introductory course in college biology and evaluation by instructor.
Recommended: Reading Level 1.
Hours: (54-108) 3 directed study/unit.
Repeat: 3 or until a limit of 4 units is reached. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

FD SV 56 Special Project in Foods and Nutrition
(1 unit. Limit 2 units)
Research and project development in special interest areas relating to the foodservice industry. Topics must extend study beyond the current curriculum and require departmental approval. A minimum of 18 hours for outside-of-class assignments is required.
Prerequisite: Completion of the first-year curriculum of the foods and nutrition program with a grade of “B.”
Recommended: Reading Level 1 and recommendation by faculty member. Hours: (18) 1 seminar.
Repeat: 1, not to exceed 2 units.
CCS: Occupational Education. Not Transferable: Associate Degree only.

IND T 271 Special Problems in Welding
(1-3 units, limit 3 units)
Provides individual students the opportunity to explore various segments of welding such as various welding processes and codes, fabrication techniques, layout, and testing and preparation for certification. Development and implementation of meaningful, self-directed studies in areas where the student desires specific technical and related skill development necessary for enrichment or employment.
Prerequisite: WELD 1a or WELD 53a with a grade of “C,” or equivalent experience or evaluation by instructor.
Completed “Petition for Individual Study” form. Recommended: Reading Level 1.
Enrollment is contingent on available lab space.
Hours: (18-54) Hrs. by arrangement.
Repeat: 2 or until a maximum of 3 units is reached. CCS: Occupational Education. Not Transferable: Not degree applicable.

IND T 272 Special Problems in Electronics
(1-3 units, limit 3 units)
Provides individual students the opportunity to explore various segments of electronics. Development and implementation of meaningful, self-directed studies in areas where the student desires specific technical and related skill development necessary for
enrollment or employment. **Prerequisites:** Completion of minimum of 9 units of electronics courses with a grade of "C," or equivalent experience or evaluation by instructor. Completed “Petition for Individual Study” form. **Recommended:** Reading Level 1. **Enrollment** is contingent on available lab space. **Hours:** (18-54) Hrs. by arrangement. **Repeat:** 2 or until a limit of 3 units is reached. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**IND T 273 Special Problems in Machine Tool Metal Working (1–3 units, limit 3 units)**

Provides individual students the opportunity to explore various segments of machine tool metal working. Development and implementation of meaningful, self-directed studies in areas where the student desires specific technical and related skill development necessary for enrichment or employment. **Prerequisites:** Completion of minimum of 6 units of machine tool courses with a grade of "C" or equivalent experience or evaluation by instructor. Completed “Petition for Individual Study” form. **Recommended:** Reading Level 1. **Enrollment** is contingent on available lab space. **Hours:** (18-54) Hrs. by arrangement. **Repeat:** 2 or until a limit of 3 units is reached. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**IND T 274 Special Problems in Wood Working (1–3 units, limit 3 units)**

Provides the individual students the opportunity to explore various segments of woodworking. Development and implementation of meaningful, self-directed studies in areas where the student desires specific technical and related skill development necessary for enrichment or employment. **Prerequisites:** Completion of minimum of 9 units of woodworking courses with a grade of "C" or equivalent experience or evaluation by instructor. Completed “Petition for Individual Study” form. **Recommended:** Reading Level 1. **Enrollment** is contingent on available lab space. **Hours:** (18-54) Hrs. by arrangement. **Repeat:** 2 or until a limit of 3 units is reached. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**IND T 275 Special Problems in Automotives (1–3 units, limit 3 units)**

Provides the individual students the opportunity to explore various segments of automotives. Development and implementation of meaningful, self-directed studies in areas where the student desires specific technical and related skill development necessary for enrichment or employment. **Prerequisites:** Completion of minimum of 12 units of automotive courses with a grade of "C" or equivalent experience or evaluation by instructor. Completed “Petition for Individual Study” form. **Recommended:** Reading Level 1. **Enrollment** is contingent on available lab space. **Hours:** (18-54) Hrs. by arrangement. **Repeat:** 2 or until a limit of 3 units is reached. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**MATH 21 Special Projects in Mathematics (1–2 units, limit 2 units)**

Individually directed work in mathematics, including advanced topics, research projects, special problems and applications of mathematics to specific subject areas. **Prerequisites:** Completion of a basic course in mathematics with a grade of "B" and evaluation by instructor. Recommended: Reading Level 1. **Hours:** (18-36) 1 lab. **Repeat:** 1. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**PHY S 21 Special Projects in Physical Science (0.5–3 units, limit 3 units)**

Individually directed work in a science, engineering or architecture area. Individual research problems using materials, equipment and techniques not available in larger classes. **Prerequisites:** Completion of a basic course in science, engineering, or drafting with a minimum grade of "C" and evaluation by instructor. **Recommended:** Reading Level 1. **Hours:** (27-162) 3 directed study/unit. **Repeat:** 2, or until a limit of 3 units is reached. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**PSYCH 21a–21b–21c–21d Special Projects (1–1–1–1 unit. Limit 4 units)**

Psychological assistant and tutor. Work primarily in a tutorial relationship with students enrolled in a course which the
enrollee has completed with a high level of mastery. **Prerequisites:** PSYCH 1a with a grade of "B" and completion of the course in which student will be assisting with a grade of "B." **Hours:** (54-216) 3-12 lab by arrangement. **Repeat:** 3, or until a maximum of 4 units is reached. CCS: Liberal Arts & Sciences. **Transferable:** CSU and selected institutions.

**SOC 21abcd Special Projects**
(1-1-1-1 unit. Limit 4 units)
Sociology assistant and tutor. Work primarily in a tutorial relationship with students enrolled in a course which the enrollee has completed with a high level of mastery. **Prerequisites:** SOC 1 with a grade of "B" and completion of the course in which student will be assisting with a grade of "B." **Hours:** (54-216) 3-12 lab by arrangement. **Repeat:** 3, or until a maximum of 4 units is reached. CCS: Liberal Arts & Sciences. **Transferable:** CSU and selected institutions.

**SP ST 49 Special Studies: Honors**
(1-2 units, limit 4 units)
Seminars and/or individual conferences by arrangement. Independent, individual study planned to provide an enriched academic experience for students not being served in regularly scheduled courses. It is planned to meet the needs of superior students whose background and interests indicate that they could profit from individual study in a subject area. The course will be designated according to the subject field of studies, i.e. Special Studies/German. **Prerequisite:** Recommendation by instructor. **Hours:** (18-36) 1-2 lect. Field trips may be required. **Repeat:** 1 or until a limit of 4 units is reached. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**SP ST 49L Special Studies Lab: Honors**
(1-2 units, limit 4 units)
Seminars and/or individual conferences by arrangement. Independent, individual study planned to provide an enriched academic experience for students not being served in regularly scheduled courses. It is planned to meet the needs of superior students whose background and interests indicate that they could profit from individual study in a subject area. The course will be designated according to the subject field of studies, i.e. Special Studies/German. **Prerequisite:** Recommendation by instructor. **Hours:** (54-108) 3-6 lab by arrangement. Field trips may be required. **Repeat:** 1 or until a limit of 4 units is reached. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**SP ST 201 Special Projects and Studies**
(1-3 units, limit 6 units)
Special projects of studies in an area not being served by regularly scheduled courses. The student is required to meet periodically with faculty advisor and/or department chair to review progress in the study program. **Prerequisite:** Recommendation by instructor. **Hours:** (18-54) 1-9 hours by arrangement. Field trips may be required. **Repeat:** 3, or until 6 units are reached. CCS: Liberal Arts & Sciences. **Transferable:** Not degree applicable.

**SP ST 201L Special Projects and Studies**
(1-3 units, limit 6 units)
Special projects of studies in an area not being served by regularly scheduled courses. The student is required to meet periodically with faculty advisor and/or department chair to review progress in the study program. **Prerequisite:** Recommendation by instructor. **Hours:** (54-162) 3-9 hours by arrangement. Field trips may be required. **Repeat:** 3, or until 6 units are reached. CCS: Liberal Arts & Sciences. **Transferable:** Not degree applicable.

**SP ST 210 Independent Reading Program**
(1-2 units, limit 2 units)
Independent reading of books in the social sciences, physical sciences and humanities under Library staff supervision. **Recommended:** Reading Level 1. **Hours:** (54-108) 3-6 lab by arrangement. **Repeat:** 1. CCS: Liberal Arts & Sciences. **Transferable:** CSU and private colleges.
Life Science

Anatomy
Bacteriology
Biology
Health Science
Physiology
Students expecting to transfer to an upper division institution with a major in a Life Science area must comply with the requirements as shown in the catalog under Graduation Requirements and should consult the catalog of the college or university of their choice for required and/or recommended courses. Counselors/advisors will assist the student in planning for an Associate Degree.

**ASSOCIATE IN SCIENCE DEGREE PROGRAM**

**Bacteriology (Microbiology—Letters and Science)**

A bacteriologist studies growth, structure, development and general characteristics of bacteria and other microorganisms. Isolates and makes cultures of significant bacteria. Identifies microorganism by biochemical tests and microscopic examination. Makes chemical analyses of substances such as enzymes, alcohols and acids produced by bacteria and other microorganisms.

**Required Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CHEM 1a</td>
<td>General Chemistry</td>
<td>5.0</td>
</tr>
<tr>
<td>CHEM 1b</td>
<td>General Chemistry and Chemical Analysis</td>
<td>5.0</td>
</tr>
<tr>
<td>CHEM 8</td>
<td>Elementary Organic Chemistry</td>
<td>3.0</td>
</tr>
<tr>
<td>CHEM 9</td>
<td>Organic Chemistry Laboratory</td>
<td>3.0</td>
</tr>
<tr>
<td>BIOL 3a</td>
<td>General Biology I</td>
<td>5.0</td>
</tr>
<tr>
<td>BIOL 3b</td>
<td>General Biology II</td>
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<tr>
<td>PHYS 2a</td>
<td>General Physics—Mechanics and Heat</td>
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<tr>
<td>PHYS 2b</td>
<td>General Physics—Sound, Light, Electricity, Magnetism, Modern Physics</td>
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**Recommended Courses**

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<th>Title</th>
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</thead>
<tbody>
<tr>
<td>BACT 2</td>
<td>General Bacteriology and Microbiology</td>
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<tr>
<td>MATH 6a</td>
<td>Analytic Geometry and Calculus I</td>
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</tbody>
</table>

**Biology**

Biology is the study of the origin, relationship, development, anatomy, physiology and other basic characteristics of animal and plant life. Graduates may specialize in research based on a particular organism, or aspect of biology. A wide variety of occupations is based on biological science. Major fields are biological oceanography, entomology, life science, teaching, botany, medicine, genetics, molecular biology, biochemistry, pharmacy, ecology, wildlife management, zoology and the related clinical fields.

**Required Courses**

<table>
<thead>
<tr>
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<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 3a</td>
<td>General Biology I</td>
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</tr>
<tr>
<td>CHEM 1a</td>
<td>General Chemistry</td>
<td>5.0</td>
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<tr>
<td>CHEM 1b</td>
<td>General Chemistry and Chemical Analysis</td>
<td>5.0</td>
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<tr>
<td>PHYS 2a</td>
<td>General Physics—Mechanics and Heat</td>
<td>4.0</td>
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<tr>
<td>PHYS 2b</td>
<td>General Physics—Sound, Light, Electricity, Magnetism, Modern Physics</td>
<td>4.0</td>
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**Recommended Courses**

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<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>CHEM 9</td>
<td>Organic Chemistry Laboratory</td>
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<tr>
<td>MATH 6a</td>
<td>Analytic Geometry and Calculus I</td>
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</tr>
<tr>
<td>MATH 6b</td>
<td>Analytic Geometry and Calculus II</td>
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</tr>
<tr>
<td>MATH 22</td>
<td>Elementary Probability and Statistics</td>
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</table>

French or German

Note: Students should consult with the university of their choice as to whether CHEM 8 and CHEM 9 should be taken.

**Suggested Program**

This suggested program meets all Intersegmental General Education Transfer Curriculum (IGETC) requirements. This program is a series of courses that community college students can use to satisfy lower-division general-education requirements at any California State University (CSU) or University of California (UC) campus. It will permit a student to transfer to a campus of the CSU or the UC system without the need, after transfer, to take additional lower-division general-education courses to satisfy campus general-education requirements. The program also meets or exceeds the minimum entrance requirements for most medical schools and other health professional programs. This program assumes you are academically prepared for university-level courses. Students requiring additional preparation in mathematics or English will require at least one additional semester.

**First Semester**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
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<td>BIOL 3a</td>
<td>General Biology I</td>
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<td>CHEM 1a</td>
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<td>ENGL 1a</td>
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<td></td>
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(Continued next page)
### Life Science

#### Second Semester

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<th>Title</th>
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<td>5.0</td>
</tr>
<tr>
<td>CHEM 1b</td>
<td>General Chemistry and Chemical Analysis</td>
<td>5.0</td>
</tr>
<tr>
<td>ENGL 2 or</td>
<td>Advanced Composition and Critical Thinking</td>
<td>5.0</td>
</tr>
<tr>
<td>PHIL 9</td>
<td>Critical Thinking and Composition</td>
<td>3.0</td>
</tr>
</tbody>
</table>

#### Third Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 6a</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS 2a</td>
<td>General Physics—Mechanics and Heat</td>
<td>4.0</td>
</tr>
<tr>
<td>SPCH 1</td>
<td>Speech Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>Art or Humanities elective</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>Social or Behavioral Science elective</td>
<td>3.0</td>
<td></td>
</tr>
</tbody>
</table>

#### Fourth Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 6b</td>
<td>Analytic Geometry and Calculus II</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS 2b</td>
<td>General Physics—Sound, Light, Electricity, Magnetism, Modern Physics</td>
<td>4.0</td>
</tr>
<tr>
<td>Art or Humanities elective</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>Social or Behavioral Science elective</td>
<td>3.0</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** If you are planning to transfer to a CSU campus, consider satisfying the art or humanities requirement by taking two courses from the following list: FREN 2, 3, 4; GERM 2, 3, 4; or SPAN 2ab, 3, 4. These courses simultaneously satisfy the CSU language other than English and the arts and humanities requirements.

### ADN Program Requirements

This suggested program meets all ADN Program requirements. The suggested program assumes you have already completed MATH A (or equivalent) and ENGL 1 (or equivalent). An additional semester is required for students that have not completed MATH A (or equivalent) since MATH A is a prerequisite for CHEM 11.

#### Suggested Program

**First Semester**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANAT 1</td>
<td>Human Anatomy</td>
<td>4.0</td>
</tr>
<tr>
<td>CHEM 11</td>
<td>Principles of Inorganic, Organic, and Biochemistry</td>
<td>5.0</td>
</tr>
<tr>
<td>ENGL 1a</td>
<td>Expository Composition</td>
<td>4.0</td>
</tr>
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</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 17a or</td>
<td>History of the United States</td>
<td>3.0</td>
</tr>
<tr>
<td>Social Science course</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>PHYS 1</td>
<td>Human Physiology</td>
<td>5.0</td>
</tr>
<tr>
<td>SPCH 1 or</td>
<td>Speech Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>SPCH 2</td>
<td>Interpersonal Communication</td>
<td>3.0</td>
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### Third Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BACT 2</td>
<td>General Bacteriology and Microbiology</td>
<td>4.0</td>
</tr>
<tr>
<td>PHIL 12 or</td>
<td>Ethics of Living and Dying</td>
<td>3.0</td>
</tr>
<tr>
<td>Humanities course</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>PSYCH 1a</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 1 or</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANTH 2</td>
<td>Cultural Anthropology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### Pre-Professional Programs

Bakersfield College does not offer a Certificate of Achievement or degrees in the following programs. However, the following courses of study are recommended for those students who are pursuing a pre-professional education.

**Clinical Laboratory Assistant**

Clinical Laboratory Assistants perform a wide variety of technical laboratory procedures which assist the physician in the diagnosis and treatment of disease. Their work is done under the supervision of a Clinical Laboratory Scientist/Medical Technologist in hospitals, clinics, private and independent laboratories or in physician office laboratories throughout the United States.

The Clinical Laboratory Assistant curriculum is designed as a career ladder and offers the graduates a promising future with many opportunities for advancement. The program can be completed in two years by taking the first year at Bakersfield College and the second at Cal State Bakersfield. The student can obtain a certificate of program completion from Cal State Bakersfield and Bakersfield College. Likewise, the student can continue his/her education, obtain a Bachelor’s Degree, and become eligible for certification and licensure as a Clinical Laboratory Scientist. Clinical Laboratory Scientists may specialize in one of the scientific areas and obtain a Masters or Doctoral Degree.

**Required Courses (Bakersfield College): 27**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANAT 1</td>
<td>Human Anatomy</td>
<td>4.0</td>
</tr>
<tr>
<td>BACT 2</td>
<td>General Bacteriology and Microbiology</td>
<td>4.0</td>
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</tbody>
</table>
Required Courses (Cal State Bakersfield): 30

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CLS 321.001</td>
<td>Hematology 1 Lecture</td>
<td>3.0</td>
</tr>
<tr>
<td>CLS 351</td>
<td>Clinical Microscopy I</td>
<td>2.0</td>
</tr>
<tr>
<td>CLS 203</td>
<td>General Organic Chemistry</td>
<td>5.0</td>
</tr>
<tr>
<td>CLS 151</td>
<td>Phlebotomy Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>CLS 326.001</td>
<td>Clinical Chemistry 1 Lecture</td>
<td>3.0</td>
</tr>
<tr>
<td>CLS 352</td>
<td>Basic Immun/Serology</td>
<td>2.0</td>
</tr>
<tr>
<td>CLS 353</td>
<td>Applied Immun/Serology</td>
<td>2.0</td>
</tr>
<tr>
<td>CLS 250</td>
<td>Clinical Information Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>CLS 314.001</td>
<td>Med Micro Lecture</td>
<td>3.0</td>
</tr>
<tr>
<td>CLS 322.001</td>
<td>Immunohematology 1 Lecture</td>
<td>2.0</td>
</tr>
<tr>
<td>CLS 260</td>
<td>Simulated Clinical Laboratory</td>
<td>4.0</td>
</tr>
</tbody>
</table>

A certificate attesting successful completion of the Clinical Laboratory Assistant Program is awarded by California State University, Bakersfield. Students must have completed a minimum of 29 units of the program at CSUB to be eligible for the certificate. For a complete detailed description of CSUB courses, refer to CSUB catalog.

COURSE DESCRIPTIONS

The following abbreviations are commonly used in the course descriptions: lect lecture; lab laboratory; demo demonstration; Repeat repeatability (see policy on course repetition); CCS Course Classification System. Hours given in parentheses are total hours for the course. Hours lecture, lab, etc., are hours required per week usually. Prerequisites are expressed as minimum requirements. See page 47 for a complete explanation. (CSU) indicates transferable to California State Universities; (UC) indicates Transferable to University of California.

ANATOMY

ANAT 1 Human Anatomy (4 units)
The essential features of human anatomy with special emphasis upon the needs of students majoring in biology, nursing, physical education and the medical sciences. Includes the microscopic and gross anatomy of all the systems: skeletal, muscular, circulatory, respiratory, digestive, excretory, nervous, endocrine, reproductive and integumentary. Prerequisite: Satisfactory completion of a high school biology course with a laboratory or one semester of college biology. Recommended: Reading Level 1. Hours: (144) 2 lect and 6 lab. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN BIOL 10)

BACTERIOLOGY

BACT 2 General Bacteriology and Microbiology (4 units)
Introduction to the study of microorganisms. Topics include history, morphology, ecology, effects of physical and chemical agents, microbial biochemistry, immunity, vaccination, public health, disease organisms as they affect humans, the sanitation of food, water, sewage treatment and industrial applications. Prerequisite: CHEM 11 or CHEM 2a. Recommended: Reading Level 1. Hours: (144) 2 lect, 6 lab. Field trips required. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN BIOL 14)
BIOLOGY
Credit limitations may apply. For specific information see a counselor.

BIOL 3a General Biology I (5 units)

BIOL 3b General Biology II (5 units)
Principles of cell biology, molecular biology, metabolism, biochemistry, molecular genetics, and physiology. Prerequisites: CHEM 1a and BIOL 3a. Hours: (162) 3 lect, 6 lab. Field trips required. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

BIOL 7 Environment (3 units)
Major consideration will be given to the process which will sustain humans on this planet. Topics to be included: the relevance of ecology to human affairs; historical aspects of ecological principles; population ecology; and ecology and the human future. Recommended: Reading Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

BIOL 11 Concepts of Biology (4 units)
An introductory course in biological science illustrating the principles of organization, function and evolution of plants and animals, with particular emphasis on humans. Prerequisites: BIOL 53 with a grade of “C” or high school sciences with grades of “C,” MATH A or equivalent. Recommended: Reading Level 1. Hours: (108) 3 lect, 3 demo/disc/lab per week, plus at least one field trip. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

BIOL 53 General Biology (3 units)
Outlines the main facts and principles of biology; experience in the use of scientific method. Recommended (and may be required) as preparation for other college biological sciences whenever the previous school record indicates insufficient preparation for such studies. Recommended: Reading Level 2. Hours: (72) 2 lect, 1 lab, 1 disc. Field trips required. CCS: Precollegiate — discipline specific. Not Transferable: Not degree applicable. Note: Not open for credit to students who have already completed BIOL 3a, BIOL 11, PHYSL 1 or high school biology with a grade of “B.”

BIOL 248 Cooperative Work Experience Education (1-8 units, limit 16 units)
See W EXP 248 description.

BIOL 249 Cooperative Work Experience Education (1-4 units, limit 16 units)
See W EXP 249 description.

HEALTH SCIENCE
Credit limitations may apply. For specific information see a counselor.

HL SC 1 Survey of Anatomy and Physiology (4 units)
A first course in integrated life science for students in health science programs. Principal emphasis is on the structure and function of human organ systems. Also includes cell structure and function, human development and human heredity. Recommended: Reading Level 1. Hours: (108) 3 lect, 3 lab. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges.

PHYSIOLOGY

PHYSL 1 Human Physiology (5 units)
Introductory course in human physiology. Physiology of cells, tissues, circulation, respiration, digestion, excretion, controls, and reproduction. Prerequisite: One of the following: CHEM 1a, CHEM 2a, CHEM 11, ANAT 1, BIOL 1a, BIOL 11. Hours: (162) 3 lect, 6 lab. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN BIOL 12)
Mathematics
ASSOCIATE IN ARTS DEGREE

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 6a</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 6b</td>
<td>Analytic Geometry and Calculus II</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 6c</td>
<td>Calculus III</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 6d</td>
<td>Ordinary Differential Equations</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 6e</td>
<td>Elementary Linear Algebra</td>
<td>3.0</td>
</tr>
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</table>

Recommended Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 7</td>
<td>Introduction to Logic</td>
<td>3.0</td>
</tr>
<tr>
<td>PHYS C</td>
<td>Approved Course</td>
<td>4.0</td>
</tr>
<tr>
<td>CS 12</td>
<td>Introduction to Programming with</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>BASIC</td>
<td></td>
</tr>
<tr>
<td>CS 13</td>
<td>Introduction to Programming in</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>FORTRAN</td>
<td></td>
</tr>
<tr>
<td>MATH 22</td>
<td>Elementary Probability and Statistics</td>
<td>5.0</td>
</tr>
</tbody>
</table>

COURSE DESCRIPTIONS

The following abbreviations are commonly used in the course descriptions: **lect** lecture; **lab** laboratory; **demo** demonstration; **Repeat** repeatability (see policy on course repetition); **CCS** Course Classification System. Hours given in parentheses are total hours for the course. Hours lecture, lab, etc., are hours required per week usually. Prerequisites are expressed as minimum requirements. See page 47 for a complete explanation. (CSU) indicates transferable to California State Universities; (UC) indicates Transferable to University of California.

MATHEMATICS

Credit limitations may apply. For specific information see a counselor.

MATH A Elementary Algebra (3 units)

Fundamental concepts and mathematical processes, first degree equations, special products and factoring, fractions and fractional equations, ratios, proportions, radicals, exponents, graphs, simultaneous linear equations, quadratic equations.

**Prerequisites:** Qualifying score on entrance examination and/or evaluation by instructor.

**Recommended:** Reading Level 1. **Hours:** (90) 5 lect. **CCS:** Liberal Arts & Sciences. **Not Transferable:** Associate Degree only.

MATH B Geometry (3 units)

Includes congruence and similarity of triangles, parallel and perpendicular lines, quadrilaterals, polygons, circles, the Pythagorean Theorem, ratio and proportion, and area. Deductive reasoning with various methods of proof are used extensively.

**Prerequisites:** MATH A or one year of high school algebra or equivalent with a grade of "C." **Recommended:** Reading Level 1. **Hours:** (90) 5 lect. **CCS:** Liberal Arts & Sciences. **Not Transferable:** Associate Degree only.

MATH C Plane Trigonometry (3 units)

Definitions of trigonometric functions, graphs of trigonometric functions, use of trigonometric functions in problem solving, derivation of trigonometric identities.
verification of trigonometric identities, solutions of conditional trigonometric equations, study of inverse trigonometric functions, complex numbers, trigonometric form of complex numbers and DeMoivre's Theorem. **Prerequisites:** Plane Geometry and MATH D or two years of high school algebra or equivalent with a grade of "C." **Recommended:** Reading Level 1. **Hours:** (54) 3 lect. CCS: Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

**MATH D Intermediate Algebra (4 units)**
Sets and operations, signed numbers, factoring, linear equations, simple and complex fractions, functional notation, simple graphs, exponents and radicals, quadratic equations, the conics, variation, determinants, logarithms, exponential equations, sequences and series and the binomial expansion. **Prerequisite:** MATH A or one year of high school algebra or equivalent with a grade of "C." **Recommended:** Reading Level 1. **Hours:** (90) 5 lect. CCS: Liberal Arts & Sciences. **Not Transferable:** Associate Degree only.

**MATH 1 Mathematical Analysis (4 units)**
Polynomial, rational, exponential and logarithmic functions, elementary theory of equations, graphing techniques, selected topics from analytic geometry, mathematical inductions, sequences and series, geometric and algebraic vectors, symbolic logic, matrix operations and methods of proof. **Prerequisite:** MATH C or equivalent with a grade of "C." **Hours:** (90) 5 lect. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**MATH 2 Basic Functions and Calculus for Business (4 units)**
Modern concepts in mathematics including functions, matrix algebra and sequences; the basic concepts of differential calculus with an introduction to integral calculus involving numerous applications to business. **Prerequisite:** MATH D or two years of high school algebra or equivalent with a grade of "C." **Hours:** (54) 3 lect. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. (CAN MATH 34)

**MATH 6a Analytic Geometry and Calculus I (4 units)**
Elements of analytic geometry, differential calculus and introduction to integration of algebraic functions. **Prerequisite:** MATH 1 or equivalent with a grade of "C." **Hours:** (72) 4 lect. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. (CAN MATH 18)

**MATH 6b Analytic Geometry and Calculus II (4 units)**
Transcendental functions, polar coordinates, sequences, infinite series and methods of integration. Further exposure to techniques and applications of differential and integral calculus. **Prerequisite:** MATH 6a or equivalent with a grade of "C." **Recommended:** Reading Level 1. **Hours:** (72) 4 lect. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. (CAN MATH 20)

**MATH 6c Calculus III (4 units)**
Continuation of Calculus II. Vectors and parametric equations, vector-valued functions, partial differentiation, multiple integrals, vector analysis, including theorems of Green, Gauss and Stokes. **Prerequisite:** MATH 6b or equivalent with a grade of "C." **Hours:** (72) 4 lect. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. (CAN MATH 22)

**MATH 6d Ordinary Differential Equations (3 units)**
Vector spaces and linear transformations; elementary differential equations; Laplace transforms; series solutions and systems of differential equations; matrices and eigenvalues. **Prerequisite:** MATH 6c or equivalent with a grade of "C." **Hours:** (54) 3 lect. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. (CAN MATH 24)

**MATH 6e Elementary Linear Algebra (3 units)**
Real and complex number fields, vector spaces, linear transformation, matrices, systems of equations and matrix inversion, determinants, eigenvalues and eigenvectors. **Prerequisite:** MATH 6c or equivalent with a...
MATHEMATICS

grade of "C." **Recommended:** Concurrent enrollment in MATH C. **Hours:** (54) 3 lect. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. (CAN MATH 26)

**MATH 16 Liberal Arts Mathematics (4 units)**
Major mathematical concepts in the areas of management, science, statistics, social choice, the geometry of size and shape, and mathematics for computer science. Emphasis is on real-world applications. Students will learn to think logically and read technical information critically. Historical vignettes. For liberal arts students. **Prerequisite:** MATH D or equivalent with a grade of "C." **Hours:** (90) 5 lect. CCS: Liberal Arts & Sciences. **Transferable:** CSU and private colleges. (CAN MATH 2)

**MATH 22 Elementary Probability and Statistics (5 units)**
Graphical methods of description of data, finite probability; discrete and continuous random variables; sampling distributions; hypothesis testing for large and small samples, analysis of variance, nonparametric statistics; linear regression and correlation. **Prerequisite:** MATH D or equivalent with a grade of "C." **Recommended:** Reading Level 1. **Hours:** (90) 5 lect. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. (CAN STAT 2)

**MATH 50 Modern College Arithmetic and Pre-Algebra (3 units)**
A general review of basic arithmetic including the fundamental operations of addition, subtraction, multiplication and division of whole numbers, decimals, fractions and percents. Emphasis is placed on signed numbers, ratio and proportion, exponents and radicals, simple algebraic equations and geometric concepts. **Recommended:** Qualifying score on placement assessment and/or evaluation by counselor. Reading Level 2. **Hours:** (72) 4 lect. CCS: Precollegiate — basic skills. **Not Transferable:** Not degree applicable. **Note:** MATH 251 and 252 are equivalent to MATH 50/250. Not open to students with credit in MATH 50/250.

**MATH 200a Elementary Algebra (3 units)**
Self-paced, open entry/open exit. For description, See MATH A.

**MATH 200d Intermediate Algebra (4 units)**
Self-paced, open entry/open exit. For description, see MATH D.

**MATH 250 Modern College Arithmetic and Pre-Algebra (3 units)**
Self-paced, open entry/open exit. For description, see MATH 50.

**MATH 251 Modern College Arithmetic (2 units)**
A general review of arithmetic, including the fundamental operations of addition, subtraction, multiplication and division of whole numbers, fractions, decimals, ratio, proportions and percents. **Hours:** (64) 4 lab for 16 weeks. Open entry/open exit. CCS: Precollegiate — basic skills. **Not Transferable:** Not degree applicable. **Note:** MATH 251 and 252 are equivalent to MATH 50/250. Not open to students with credit in MATH 50/250.

**MATH 252 Sign Numbers and Equations (1 unit)**
A general review of signed numbers, exponents and simple algebraic equations. **Hours:** (24) 4 lab for 6 weeks. Open entry/open exit. CCS: Precollegiate — basic skills. **Not Transferable:** Not degree applicable. **Note:** MATH 251 and 252 are equivalent to MATH 50/250. Not open to students with credit in MATH 50/250.
Students who plan to major or minor in music should commit themselves to the highest possible level of proficiency in theory, piano, literature, group performance, and applied (individual) instruction in their performance area. Students should take the required courses in music and complete courses in general education for the transfer college of their choice. Elective courses will both enrich the student's background and balance weak areas of knowledge for later academic growth.

ASSOCIATE IN ARTS DEGREE

Required Courses

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<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSIC 1ab</td>
<td>Elementary Theory</td>
<td>8.0</td>
</tr>
<tr>
<td>MUSIC 3ab</td>
<td>Intermediate Theory</td>
<td>6.0</td>
</tr>
<tr>
<td>MUSIC 5ab</td>
<td>Class Piano</td>
<td>2.0</td>
</tr>
<tr>
<td>MUSIC 15ab</td>
<td>Ear Training</td>
<td>2.0</td>
</tr>
<tr>
<td>MUSIC 21ab</td>
<td>History of Music</td>
<td>6.0</td>
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</table>

Group Performance (Select one each semester)

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<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSIC 10ad</td>
<td>Concert Band</td>
<td>12.0</td>
</tr>
<tr>
<td>MUSIC 12ad</td>
<td>College Orchestra</td>
<td>4.0</td>
</tr>
<tr>
<td>MUSIC 14ad</td>
<td>College Choir</td>
<td>8.0</td>
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</table>

Other Suggested Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>MUSIC 2</td>
<td>Basic Elements of Music</td>
<td>3.0</td>
</tr>
<tr>
<td>MUSIC 5cd</td>
<td>Class Piano</td>
<td>2.0</td>
</tr>
<tr>
<td>MUSIC 6ab</td>
<td>Class Voice</td>
<td>2.0</td>
</tr>
<tr>
<td>MUSIC 6cd</td>
<td>Class Voice</td>
<td>2.0</td>
</tr>
<tr>
<td>MUSIC 9ac</td>
<td>Class Guitar</td>
<td>3.0</td>
</tr>
<tr>
<td>MUSIC 13ad</td>
<td>Jazz Ensemble</td>
<td>4.0</td>
</tr>
<tr>
<td>MUSIC 17ad</td>
<td>Chamber Singers</td>
<td>8.0</td>
</tr>
<tr>
<td>MUSIC 22</td>
<td>Music Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>MUSIC 23</td>
<td>Appreciation of Jazz</td>
<td>3.0</td>
</tr>
<tr>
<td>MUSIC 24</td>
<td>A Survey of World Music</td>
<td>3.0</td>
</tr>
<tr>
<td>MUSIC 27</td>
<td>History of American Popular Music</td>
<td>3.0</td>
</tr>
<tr>
<td>MUSIC 54ad</td>
<td>College Chorale</td>
<td>4.0</td>
</tr>
</tbody>
</table>

COURSE DESCRIPTIONS

The following abbreviations are commonly used in the course descriptions: lect lecture; lab laboratory; demo demonstration; Repeat repeatability (see policy on course repetition); CCS Course Classification System. Hours given in parentheses are total hours for the course. Hours lecture, lab, etc., are hours required per week usually. Prerequisites are expressed as minimum requirements. See page 47 for a complete explanation. (CSU) indicates transferable to California State Universities; (UC) indicates Transferable to University of California.

MUSIC

Credit limitations may apply. For specific information see a counselor.

MUSIC 1a-1b Elementary Theory (4-4 units)
A comprehensive study of tonal harmony through an integrated writing, analytical, keyboard, computer assisted instruction, and ear training approach. Prerequisites: MUSIC 2 or evaluation by instructor. 1a: Concurrent enrollment in MUSIC 15a. 1b: Concurrent enrollment in MUSIC 15b. Recommended: Reading Level 1. Hours: (126) 3 lect, 4 lab. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

MUSIC 2 Basic Elements of Music (3 units)
Designed for the student with little or no previous experience in the reading and writing of music. Development of beginning skills, including ear training, notation, and basic elements of music theory. Prerequisite: Concurrent enrollment in MUSIC 16. Recommended: Reading Level 1. Hours: (90) 3 lect, 2 lab. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

MUSIC 3a-3b Intermediate Theory (3-3 units)
Chromatic development in harmony during the 18th, 19th and 20th century through an integrated written theoretical, analytical, and aesthetic approach. Prerequisite: MUSIC 1a-1b or equivalent or evaluation by instructor. Recommended: Reading Level 1. Hours: (54-54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges.
MUSIC 5a–5b–5c–5d Class Piano
(1–1–1–1 unit)
Open to students beginning the study of piano. Recommended for students preparing to teach in the elementary grades and for music majors specializing in voice or instruments, other than the piano. Recommended: 5a: Reading Level 1, English Level 1, 5bcd in sequence or evaluation by instructor. Hours: (36 each) 2 lab. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

MUSIC 6a–6b–6c–6d Class Voice
(1–1–1–1 unit)
Elementary solo vocal training. Emphasizes breath control, tone placement, posture, diction and interpretive concepts. 6b–6c–6d emphasizes repertoire and further technical development. Recommended: 6a: Basic understanding of music fundamentals. Hours: (36 each) 2 lab. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

MUSIC 9a Class Guitar (1 unit)
Designed to teach the student how to play the guitar. Correct right and left hand technique, how to read guitar music, basic chords, finger-picking and strumming. A suitable acoustic guitar required. Recommended: Reading Level 1 or evaluation by instructor. Hours: (36) 2 lab. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

MUSIC 9b Intermediate Class Guitar (1 unit)

MUSIC 9c Advanced Class Guitar (1 unit)

MUSIC 10a–10b–10c–10d Concert Band
(3–3–3–3 units)
Rehearsal and performance of standard band literature. Participation in public performances such as athletic games, assemblies and concerts are required. Prerequisite: Evaluation by instructor. Hours: (108) 2 lect, 4 lab. Field trips required. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

MUSIC 12a–12b–12c–12d College Orchestra
(1–1–1–1 unit)
Performance of standard works from the orchestra literature. Open to advanced students playing orchestra instruments. Contact instructor to arrange audition. Prerequisites: Previous experience and evaluation by instructor. Recommended: Reading Level 1. Hours: (54 each) 3 lab. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

MUSIC 13a–13b–13c–13d Jazz Ensemble
(1–1–1–1 unit)
Practical experience in organizing instrumental combinations. Training in standard dance band phrasing and improvisation with performances at various functions. Prerequisite: Evaluation by instructor. Recommended: Reading Level 1. Hours: (54 each) 3 lab. Field trips required. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

MUSIC 14a–14b–14c–14d College Choir
(2–2–2–2 units)
Study of major choral literature of all the historical periods. Public performance required for credit. Prerequisites: Previous experience in a choral group and demonstrated proficiency, evaluation by instructor. Hours: (90) 3 lect/2 by arrangement. Field trips for performances are required. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

MUSIC 15a–15b Ear Training and Sight Singing
(1–1 unit)
Basic drill in the singing and recognition of intervals, scales, and diatonic melodies with
solfège syllables. Practice in rhythmic, harmonic, and melodic dictation. Extension of melodic sight singing and dictation to include chromatic passing tones and more complex rhythms. Singing and recognition of the basic varieties of triads and seventh chords. Harmonic dictation; recognition of basic chord patterns and cadences. Prerequisites: 15a: Concurrent enrollment in MUSIC 1a. 15b: Concurrent enrollment in MUSIC 1b. Recommended: Reading Level 1. Hours: (72-72) 4 lab. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

MUSIC 16 Beginning Ear Training (1 unit)
Develops aural proficiency and facility in dictation, chord and interval recognition, and rhythm. Prerequisites: Concurrent enrollment in MUSIC 2 and evaluation by instructor. Hours: (36) 2 lab. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

MUSIC 17a–17b–17c–17d Chamber Singers (2–2–2–2 units)
A select choral group, specializing in rehearsal and performance of all choral literature for all historical periods. Public performance required for credit. Prerequisites: Previous experience in a choral group and demonstrated proficiency, evaluation by instructor. Hours: (72) 3 lect/1 lab by arrangement. Field trips required. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

MUSIC 20sd Steel Drum Band (1 unit)

MUSIC 21a–21b History of Music (3–3 units)
Historical survey of western music from the Greco-early Christian era to the present. Uses recorded music and musical scores to study changing musical styles and standards of beauty. For liberal arts and music majors. Prerequisite: Evaluation by instructor. Recommended: Reading Level 1. Hours: (54-54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

MUSIC 22 Music Appreciation (3 units)
Introduction to appreciation of western art music. The development of classical music is surveyed with recordings, videos, and live performances providing illustrations for directed listening as a basis of appreciation. Recommended: Reading Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: Formerly MUSIC 22abc.

MUSIC 23 Appreciation of Jazz (3 units)
History and appreciation of jazz. Lectures, private listening, and concert attendance are required. Recommended: Reading Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

MUSIC 24 A Survey of World Music (3 units)
An introductory course surveying the dominant musical cultures of the new non-western world with comparisons to western music. Emphasizes listening to and participation in world music through lecture, films, recording, live presentations, and class performance. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

MUSIC 27 History of American Popular Music (3 units)
Introduction to the historical and stylistic developments of rock music, with emphasis on its social, economic and political consequences. Recommended: Reading Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

MUSIC 29a–29b–29c–29d Varsity Pep Band (1-1-1-1 unit)
Home game pageantry and other special events. Emphasizes show style, performance of popular music and band esprit. Prerequi-
MUSIC site: Audition for skill on a band instrument. Hours: (54 each) 3 lab. Field trips required. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges.

MUSIC 51 Bakersfield Youth Symphony (1 unit)
An orchestra intended for skilled instrumental players from 7th grade through college. Rehearsal and performance of standard works of the orchestral repertoire. Prerequisite: Evaluation by instructor. Hours: (54) 3 lab. Field trips required. Repeat: 3. CCS: Liberal Arts & Sciences. Not Transferable: Not degree applicable.

MUSIC 54a–54b–54c–54d College Chorale (1–1–1–1 unit)
Select choral ensemble of mixed voices specializing in the rehearsal and performance of major choral works. Repertoire is selected from choral literature of all periods. Prerequisites: Previous experience in a choral group and demonstrated proficiency and evaluation by instructor. Recommended: Reading Level 1. Hours: (54 each) 3 lab. Field trips for performance are required. CCS: Liberal Arts & Sciences. Not Transferable: Not degree applicable.

MUSIC 230a–230b–230c Music Laboratory (0.5–1 unit. Limit 4 units)
Self-pacing programmed system instruction in reading, deciphering, and performing the many rhythmic combinations in music. Hours: (18-36 each) 18 lab per one-half unit. Repeat: 3, or until 4 units is reached. CCS: Liberal Arts & Sciences. Not Transferable: Not degree applicable.
“Options”
"Opportunity Program Training Individuals for Occupational and Non-Traditional Career Success"
The OPTIONS program is designed primarily for re-entry students, and, women and men in career change. It is a course which meets three hours per week. For one semester students will look, with the help of expert guidance, at their abilities, and career potential. Students will be given support and encouragement throughout the semester. Students will develop confidence as they begin or return to college. Participants will also select from opportunities available in educational and vocational training in both traditional and non-traditional areas. A battery of career tests will be given students to assist them in career exploration.

COURSES

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<tr>
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<th>Title</th>
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<tr>
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<td>Discovering Yourself and Your Career</td>
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</table>
Philosophy
PROGRAMS
(UNIVERSITY OR STATE COLLEGES)
A major in philosophy has always been and continues to be one of the strongest traditional liberal arts majors in higher education. Although its immediate use would seem to be limited to teaching or research in higher education, its emphasis on critical thinking, theories of knowledge, value and reality, truth, rational argument and proof make it an excellent pre-professional undergraduate major (e.g., for law, theology, medicine, business, computer science) or minor (e.g., for the natural, physical and social science and humanities majors).

Required Courses

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<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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<tr>
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<tr>
<td>PHIL 7</td>
<td>Introduction to Logic</td>
<td>3.0</td>
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<tr>
<td>PHIL 10</td>
<td>Introduction to Ethics</td>
<td>3.0</td>
</tr>
<tr>
<td>PHIL 12</td>
<td>Ethics of Living and Dying</td>
<td>3.0</td>
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<tr>
<td>PHIL 14</td>
<td>Business and Social Responsibility</td>
<td>3.0</td>
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<tr>
<td>PHIL 37</td>
<td>Introduction to World's Religions</td>
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Recommended Courses

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<th>Units</th>
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<tr>
<td>PHIL 6b</td>
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<td>PHIL 9</td>
<td>Critical Thinking and Composition</td>
<td>3.0</td>
</tr>
<tr>
<td>PHIL 30</td>
<td>Humanities Through the Arts</td>
<td>3.0</td>
</tr>
<tr>
<td>PHIL 32</td>
<td>World Religions: East</td>
<td>3.0</td>
</tr>
<tr>
<td>PHIL 33</td>
<td>World Religions: West</td>
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</table>

COURSE DESCRIPTIONS

The following abbreviations are commonly used in the course descriptions: lect lecture; lab laboratory; demo demonstration; Repeat repeatability (see policy on course repetition); CCS Course Classification System. Hours given in parentheses are total hours for the course. Hours lecture, lab, etc., are hours required per week usually. Prerequisites are expressed as minimum requirements. See page 47 for a complete explanation. (CSU) indicates transferable to California State Universities; (UC) indicates Transferable to University of California.

PHILOSOPHY
Credit limitations may apply. For specific information see a counselor.

PHIL 6a–6b Introduction to Philosophy
(3–3 units)
A method, problems, and historical approach to philosophy. Epistemology (the study of knowledge), metaphysics (the study of reality), ethics (the study of morality), and philosophy of religion are covered. Recommended: 6a: Reading Level 1. 6b: PHIL 6a or PHIL 10. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN PHIL 6)

PHIL 7 Introduction to Logic (3 units)
Traditional basics of correct reasoning with an emphasis on their relationships to language, thought and argument. Recommended: Reading Level 1, English Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN PHIL 6)

PHIL 9 Critical Thinking and Composition
(3 units)
Development of critical thinking skills necessary for evaluating and formulating argumentative/persuasive essays, and practice in applying those skills. Prerequisite: ENGL 1a. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

PHIL 10 Introduction to Ethics (3 units)
Examination of the philosophical approach to morality. Study of the meaning of ethics and morality and methods used in ethical theorizing.
and reasoning. Emphasizes major ethical issues and theories. Instructs how to set up an ethical system. **Recommended:** Reading Level 1, English Level 1. **Hours:** (54) 3 lect. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. (CAN PHIL 4)

**PHIL 12 Ethics of Living and Dying (3 units)**
A philosophical yet practical approach to some of the major medical-ethical problems facing human beings today, such as: what patients should be told, the nature and importance of informed consent, the meaning and criteria for living, dying, and death including caring for the dying and allowing to die, mercy death, and mercy killing, Permeating these problems will be a study of the basis for ethical relationships among human beings through a study of what morality is, consequentialist and nonconsequentialist theories of morality, and how to set up an ethical system. Special emphasis will be placed on the relationship of the professional and the well to the sick, dying, and bereaved. **Recommended:** Reading Level 1, English Level 1. **Hours:** (54) 3 lect. CCS: Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

**PHIL 14 Business and Social Responsibility (3 units)**
Moral and social responsibilities of business organizations to their various constituencies emphasizing customers, employees and stockholders. Topics include the nature of capitalism, corporations, basic issues in personnel management, the challenge of reindustrialization, employee responsibilities to organizations, consumer rights, job discrimination and the environment. **Recommended:** Reading Level 1, English Level 1 **or** evaluation by instructor. **Hours:** (54) 3 lect. CCS: Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

**PHIL 30 Humanities Through the Arts (3 units)**
A study of human values, problems and meaning through an integrated, philosophical, and yet practical approach to film, drama, literature, music, painting, sculpture, and architecture with an emphasis on active student participation both audially and visually. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect. Field trips required. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**PHIL 32 World Religions: East (3 units)**
Survey of two main Eastern religions—Hinduism and Buddhism, and study of other important Oriental religions such as Jainism, Sikhism, Confucianism, Taoism, and Shinto. Topics include each religion’s history, sacred scriptures, geographic dispersion, primary theological concepts and spiritual practices, and its role in contemporary society. Emphasis will be placed on understanding the distinct belief and practice of an individual in each of these religious traditions. **Recommended:** Reading Level 1, English Level 1. **Hours:** (54) 3 lect. Field trips required. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**PHIL 33 World Religions: West (3 units)**
Survey of three western religions—Judaism, Christianity, and Islam—and background religions to these, including Egyptian, Persian, and European. Topics include each religion’s history, sacred scriptures, geographic dispersion, primary theological concepts and spiritual practices, and its role in contemporary society. Emphasis will be placed on understanding the distinct belief and practices of an individual in each of these religious traditions. **Recommended:** Reading Level 1, English Level 1. **Hours:** (54) 3 lect. Field trips required. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**PHIL 37 Introduction to the World’s Religions (3 units)**
A study of contemporary religions in practice around the world. Examines a variety of distinct religious traditions reflecting both the western world (Catholicism, Orthodox Christianity, Islam, Judaism) and the eastern world (Hinduism, Buddhism, Chinese Religion), how these religions are practiced. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.
Physical Science

Architecture
Astronomy
Chemistry
Engineering
Geography
Geology
Physical Science
Physics
The Bakersfield College Physical Science Department encompasses a large number of fields. Courses within these fields are taken by those who are preparing for a career in science or engineering, those who are fulfilling a General Education science requirement, and those simply wishing to learn about one or more of these fields.

Students who intend to transfer to four-year institutions as science or engineering majors can fulfill their lower division science requirements at Bakersfield College. Our students traditionally have been successful in upper division science studies at the University of California, the state colleges and universities, and at private universities.

Within the Physical Science Department, a student not only has many choices of major but also has the opportunity to explore a number of interesting possibilities. In some cases, general survey courses are available both for the potential science major who is "looking around" and for the non-science major who wants to learn some science. We are committed to making the learning of science interesting, meaningful, and enjoyable to our students.

ASSOCIATE DEGREE PROGRAMS

Associate in Arts degrees can be earned in most areas by fulfilling college major and General Education requirements. The Associate in Science Degree is available to those who complete the course of study defined for the major as well as the General Education requirements as outlined earlier in this catalog.

Counselors, advisors, and department faculty will aid students in planning for either the Associate in Arts or Associate in Science Degree.

The course requirements for Associate Degree programs are outlined below. The requirements shown are limited to those courses in the subject and related subjects that are needed for the degree. General Education courses as well as minimum competency levels as outlined under Graduation Requirements must be satisfied as well.

In addition to the course requirement list, suggested programs for each area are shown in order to help plan courses of study. Because students vary in their preparation and in rates of progress through a curriculum, some alteration in the programs as shown is likely in individual cases.

ASSOCIATE IN ARTS DEGREE PROGRAMS

ARCHITECTURAL DRAFTING

Minimum units required in discipline: 31.5

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ARCH 1</td>
<td>Introduction to Architecture and Environmental Design</td>
<td>1.5</td>
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<tr>
<td>ARCH 6</td>
<td>Materials of Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
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<tr>
<td>ARCH 11</td>
<td>Introduction to Drawing and Perspective</td>
<td>3.0</td>
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<tr>
<td>ARCH 12</td>
<td>Basic Graphics</td>
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<tr>
<td>ARCH 13</td>
<td>Graphic Analysis and Communication Skills</td>
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<tr>
<td>ARCH 21</td>
<td>Architectural Design Fundamentals I</td>
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<tr>
<td>ARCH 30</td>
<td>Architectural Model Building</td>
<td>1.0</td>
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<tr>
<td>ARCH 31</td>
<td>Architectural Practice</td>
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<tr>
<td>ARCH 32</td>
<td>Architectural Computer Graphics</td>
<td>2.0</td>
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<tr>
<td>ARCH 33</td>
<td>Architectural Computer Practice</td>
<td>3.0</td>
</tr>
<tr>
<td>IN DR 11</td>
<td>Introduction to Computer Aided Drafting and Design (CADD)</td>
<td>1.0</td>
</tr>
<tr>
<td>MATH D</td>
<td>Intermediate Algebra</td>
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Recommended Courses

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<th>Title</th>
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<tbody>
<tr>
<td>IN DR 20a</td>
<td>Computer Aided Drafting and Design (CADD)</td>
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</table>

ASSOCIATE IN SCIENCE DEGREE PROGRAMS

ARCHITECTURAL DRAFTING

Minimum units required in major or related disciplines: 40.5

Required Courses

<table>
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<th>Units</th>
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<tbody>
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<tr>
<td>ARCH 12</td>
<td>Basic Graphics</td>
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(Continued next page)
### PHYSICAL SCIENCE

**ARCH 13**  
Graphic Analysis and Communication  
Skills  
3.0

**ARCH 21**  
Architectural Design Fundamentals I  
3.0

**ARCH 22**  
Architectural Design Fundamentals II  
3.0

**ARCH 23**  
Architectural Design Fundamentals III  
3.0

**ARCH 30**  
Architectural Model Building  
1.0

**ARCH 31**  
Architectural Practice  
3.0

**ARCH 32**  
Architectural Computer Graphics  
2.0

**ARCH 33**  
Architectural Computer Practice  
3.0

**IN DR 11**  
Introduction to Computer Aided Drafting and Design (CADD)  
1.0

**MATH C**  
Plane Trigonometry  
3.0

**PHYSC 2a**  
General Physics—Mechanics and Heat  
4.0

### Recommended Courses

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<tr>
<th>Course Number</th>
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<th>Units</th>
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<tbody>
<tr>
<td>IN DR 20a</td>
<td>Computer Aided Drafting and Design (CADD)</td>
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### Suggested Program for A.S. Degree

#### First Semester

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<th>Title</th>
<th>Units</th>
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<tbody>
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<td>Introduction to Architecture and Environmental Design</td>
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#### Second Semester

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<td>ARCH 12</td>
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<td>Architectural Design Fundamentals I</td>
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<td>ARCH 30</td>
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<td>ARCH 31</td>
<td>Architectural Practice</td>
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<td>MATH C</td>
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#### Third Semester

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#### Fourth Semester

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<td>ARCH 33</td>
<td>Architectural Computer Practice</td>
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### ARCHITECTURE

**Minimum units required in major or related disciplines: 43**

#### Required Courses

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**Note:** Students should consult with the university of their choice as to whether PHYSC 4b should be taken.

### CHEMISTRY

**Minimum units required in related disciplines: 31**

#### Required Courses

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*Recommended courses (Continued next page)
## PHYSICAL SCIENCE

### Suggested Program

**First Semester**

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**Third Semester**

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<td>General Biology II</td>
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<td>3.0</td>
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<tr>
<td>CS 11 or</td>
<td>Introduction to Programming with Pascal</td>
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### GEOLGY

**Minimum units required in disciplines:** 30

**Required Courses**

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### Suggested Program

**First Semester**

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**Second Semester**

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**Third Semester**

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**Fourth Semester**

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(Continued next page)
PHYSICAL SCIENCE

Suggested Electives

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PHYSICS

Required Courses

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<td>Heat, Electricity, and Magnetism</td>
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<td>Optics and Modern Physics</td>
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<td>General Chemistry</td>
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<tr>
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SUGGESTED TRANSFER PROGRAMS

California State Polytechnic University, San Luis Obispo

ARCHITECTURE (ARCH.), ARCHITECTURAL ENGINEERING (A.E.), CITY AND REGIONAL PLANNING (C.R.P.), CONSTRUCTION (CON.), LANDSCAPE ARCHITECTURE (L.A.)

The following curriculum is designed for students planning to transfer to the College of Architecture and Environmental Design at California State Polytechnic University, San Luis Obispo. The student is advised to keep a portfolio of all work done in all architectural classes, since the level of advanced standing is dependent upon an evaluation of this portfolio by faculty at Cal Poly, S.L.O. Entry as a transfer student to Cal Poly, S.L.O. is based upon a strong grade point average (G.P.A.), certification of general elective courses, including Calculus 6a-6b, Physics 4a and the architecture courses listed below for the Multicriteria Application (MCA) process.

In the College of Architecture and Environmental Design at Cal Poly, there are five majors: Architecture, Architectural Engineering, Construction, City and Regional Planning, and Landscape Architecture. The Bachelor of Architecture and Bachelor of Landscape Architecture degrees are five-year programs. The other three majors are four-year degree programs. It is the exceptional student who is able to complete these programs in the allotted time. Many students find that it takes an additional year of study to complete any of the five programs listed above and this may mean taking course work during the summer or spending an additional year at Bakersfield College and/or at Cal Poly.

In addition, Cal Poly, S.L.O. offers two graduate programs. The Master of Science in Architecture and the Master of City and Regional Planning for those students interested in advanced professional studies.

ARCHITECTURE

2-year transfer program for those students who are entering college ready to take Math Analysis (MATH 1) or Calculus (MATH 6A) and English 1 or 1A.

Recommended Courses for Transfer to California State Polytechnic University, S.L.O.

First Semester

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<tr>
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<th>Units</th>
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<td>ARCH 6</td>
<td>Materials of Construction</td>
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<tr>
<td>ARCH 11</td>
<td>Introduction to Drawing and Perspective</td>
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<td>IN DR 10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
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<td>IN DR 11</td>
<td>Introduction to Computer Aided Drafting and Design (CADD)</td>
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<tr>
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Second Semester

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<tr>
<td>ARCH 30</td>
<td>Architectural Model Building</td>
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<td>ARCH 31</td>
<td>Architectural Practice</td>
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(Continued next page)
### PHYSICAL SCIENCE

**Additional recommended courses for Cal Poly, S.L.O. common to all five majors**

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### ARCHITECTURE

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### CITY & REGIONAL PLANNING

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### LANDSCAPE ARCHITECTURE

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<tr>
<td>GEOG 1</td>
<td>Introduction to Geography: Physical Elements</td>
<td>3.0</td>
</tr>
</tbody>
</table>

### PRE-ARCHITECTURE: Those students entering Bakersfield College who have not completed three years of math and are not ready to enter MATH 1 (Math Analysis) should plan on spending at least three years at Bakersfield College to complete the lower division requirements for the architecture major at Cal Poly, S.L.O. and an additional three and one-half to four years at Cal Poly, S.L.O.

### PRE-ARCHITECTURE

Recommended 3-year program for those students who are entering college behind in their math, English, and/or GE requirements at California State Polytechnic University, S.L.O.

**First Semester**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 1</td>
<td>Introduction to Architecture and Environmental Design</td>
<td>1.5</td>
</tr>
<tr>
<td>ARCH 6</td>
<td>Materials of Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 11</td>
<td>Introduction to Drawing and Perspective</td>
<td>3.0</td>
</tr>
<tr>
<td>IN DR 10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>IN DR 11</td>
<td>Introduction to Computer Aided Drafting and Design (CADD)</td>
<td>1.0</td>
</tr>
<tr>
<td>MATH D</td>
<td>Intermediate Algebra</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 12</td>
<td>Basic Graphics</td>
<td>3.0</td>
</tr>
<tr>
<td>ARCH 30</td>
<td>Architectural Model Building</td>
<td>1.0</td>
</tr>
<tr>
<td>ARCH 31</td>
<td>Architectural Practice</td>
<td>3.0</td>
</tr>
<tr>
<td>IN DR 20a</td>
<td>Computer Aided Drafting and Design (CADD) (Elective)</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH B</td>
<td>Geometry</td>
<td>3.0</td>
</tr>
</tbody>
</table>

(Continued next page)
PHYSICAL SCIENCE

Third Semester
Course Number Title Units
ARCH 13 Graphic Analysis and Communication Skills 3.0
ARCH 32 Architectural Computer Graphics 2.0
MATH C Plane Trigonometry 3.0

Fourth Semester
Course Number Title Units
ARCH 21 Architectural Design Fundamentals I 3.0
ARCH 33 Architectural Computer Practice 3.0
MATH 1 Mathematical Analysis 4.0

Fifth Semester
Course Number Title Units
ARCH 22 Architectural Design Fundamentals II 3.0
MATH 6a Analytic Geometry and Calculus I 4.0

Sixth Semester
Course Number Title Units
ARCH 23 Architectural Design Fundamentals III 3.0
MATH 6b Analytic Geometry and Calculus II 4.0
PHYS 4a Mechanics and Wave Motion 4.0

Cal Poly, Pomona
California State Polytechnic University,
Pomona offers three undergraduate majors
leading to the Bachelor of Science Degree in
Architecture, Landscape Architecture, and
Urban Planning. The student while attending
Bakersfield College should plan on taking the
same basic Architecture program as for Cal
Poly, San Luis Obispo, but substituting MATH
C (Trig) for MATH 6a-6b and PHYS 4a for
PHYS 2a. Entry to Cal Poly, Pomona is based
on a strong G.P.A., the above Math and Physics
courses, English 1a and 1b, and as many
architecture courses as possible. A portfolio will
be required for advanced placement into the
architecture program. A Master's Degree is
available in all three areas of study.

UC Berkeley
Students planning to transfer to the University
of California, Berkeley should expect to take
the following recommended courses. Berkeley
has a 4-year curriculum leading to the A.B.
Degree in the College of Environmental
Design, with majors in Architecture Design,
Landscape Architecture and City Regional
Planning. A Master’s Degree in Architecture,
Landscape Architecture, or City Regional
Planning would require an additional two years.

Recommended Courses
Course Number Title Units
ARCH 1 Introduction to Architecture and Environmental Design 1.5
ARCH 11 Introduction to Drawing and Perspective 3.0
ARCH 12 Basic Graphics 3.0
ARCH 13 Graphic Analysis and Communication Skills 3.0
ARCH 21 Architectural Design Fundamentals I 3.0
ARCH 22 Architectural Design Fundamentals II 3.0
ARCH 23 Architectural Design Fundamentals III 3.0
MATH 6a Analytic Geometry and Calculus I 4.0
MATH 6b Analytic Geometry and Calculus II 4.0
PHYS 4a Mechanics and Wave Motion 4.0
PHYS 4b Heat, Electricity, and Magnetism 4.0

PRIVATE UNIVERSITIES/COLLEGES
The following list are those private universities/
colleges offering degrees in architecture within
the State of California.
California College of Arts and Crafts—San Francisco
New School of Architecture—San Diego
Southern California Institute of Architecture—
Santa Monica
University of Southern California—Los Angeles
Woodbury University—Burbank

Students interested in one of the above programs
offered at these campuses should consult with
the individual dean as to entry requirements. UC
Los Angeles offers a graduate degree only.

CHEMISTRY
UC Berkeley, CSU San Jose,
CSU San Diego, CSU Fresno
The courses listed below are required for the
above institutions and for most other four-year
colleges and universities in order to transfer into
the third year of a chemistry major program.
Before planning a study list, the community
college student should consult his/her counselor
and study the catalog of the senior institution to
which he/she intends to transfer.

The introductory courses in Physics (Physics
2a-2b or 4a-4c) and Chemistry (Chemistry
1a-1b, 2a or 11) are designed to provide a
foundation and understanding of the laws and
principles of the physical world (matter and

(Continued next page)

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energy). These courses should be completed early in a student’s academic program to insure greater success in subsequent courses.

### Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM Ia</td>
<td>General Chemistry</td>
<td>5.0</td>
</tr>
<tr>
<td>CHEM 1b</td>
<td>General Chemistry and Chemical Analysis</td>
<td>5.0</td>
</tr>
<tr>
<td>MATH 6a</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 6b</td>
<td>Analytic Geometry and Calculus II</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 6c</td>
<td>Calculus III</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS 5a</td>
<td>Mechanics and Wave Motion</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS 5b</td>
<td>Heat, Electricity, and Magnetism</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS 5c</td>
<td>Optics and Modern Physics</td>
<td>4.0</td>
</tr>
</tbody>
</table>

### Recommended Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 6d</td>
<td>Ordinary Differential Equations</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 12</td>
<td>Introduction to Programming with BASIC</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 11</td>
<td>Introduction to Programming with Pascal</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 13</td>
<td>Introduction to Programming with FORTRAN</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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Bakersfield College offers all of the courses required for two full years of engineering education. Completion of these courses, called the “engineering core” prepares students for transfer at the junior level to the colleges and universities offering Bachelor’s degrees in engineering. This is in accordance with the Summit Articulation Agreement of the Engineering Liaison Committee which states that “any students of a California Community College, with a stated major in engineering, who presents a transcript showing satisfactory completion of the engineering core program in lower division will be eligible to enroll in any four-year California university or college (which graduates engineers) with regular junior standing; and further, said student can complete an engineering program in four additional semesters (or six additional quarters) and obtain a Bachelor’s Degree.”

The engineering core curriculum is the basis for Transfer Admission Agreements between Bakersfield College and the engineering colleges at several universities including the University of California at Davis and Rensselaer Polytechnic Institute in Troy, New York. The following Bakersfield College courses are required to completely satisfy the engineering core program:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 6a</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 6b</td>
<td>Analytic Geometry and Calculus II</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 6c</td>
<td>Calculus III</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 6d</td>
<td>Ordinary Differential Equations</td>
<td>3.0</td>
</tr>
<tr>
<td>CHEM 1a</td>
<td>General Chemistry</td>
<td>5.0</td>
</tr>
<tr>
<td>ENGL 1a</td>
<td>Expository Composition</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS 5a</td>
<td>Mechanics and Wave Motion</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS 5b</td>
<td>Heat, Electricity, and Magnetism</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS 5c</td>
<td>Optics and Modern Physics</td>
<td>4.0</td>
</tr>
<tr>
<td>ENGR 17</td>
<td>Introduction to Electrical Circuits</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGR 24</td>
<td>Engineering Graphics and Descriptive Geometry</td>
<td>2.0</td>
</tr>
<tr>
<td>ENGR 36</td>
<td>Engineering Mechanics—Statics</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGR 45</td>
<td>Properties of Materials</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGR 48</td>
<td>Engineering Orientation</td>
<td>1.0</td>
</tr>
<tr>
<td>ENGR 19/19p</td>
<td>Computer Programming for Science, Engineering and Technology</td>
<td>3-3.0</td>
</tr>
</tbody>
</table>

(Continued next page)
The following technical electives are highly recommended for all branches of engineering:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 6e</td>
<td>Elementary Linear Algebra</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGR 49</td>
<td>Engineering Analysis and Design</td>
<td>1.0</td>
</tr>
<tr>
<td>IN DR 10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>IN DR 11</td>
<td>Introduction to Computer Aided Drafting and Design (CADD)</td>
<td>1.0</td>
</tr>
<tr>
<td>CHEM 3</td>
<td>General Chemistry Analysis for Engineers</td>
<td>3.0</td>
</tr>
</tbody>
</table>

The following technical electives are recommended for the particular branches listed:

- GEOL 1a: Physical Geology—geological petroleum
- MATH 22: Elementary Probability and Statistics—computer
- APMPT 1a: Beginning Machine Shop (manufacturing, industrial)
- WELD 1a: Introduction to the Welding Processes—manufacturing, industrial
- CHEM 1b: General Chemistry and Chemical Analysis

Four-year colleges and universities neither require, nor recommend, that engineering majors complete lower division general education requirements prior to transfer. For students transferring to campuses of the University of California or to California Polytechnic University, San Luis Obispo, the following courses are recommended if they can be included in the student’s schedule:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPCH 1</td>
<td>Speech Communication</td>
</tr>
<tr>
<td>ENGL 2</td>
<td>Advanced Composition and Critical Thinking</td>
</tr>
</tbody>
</table>

Two-year Engineering Program

The program shown below assumes satisfactory prior completion of the following:

(a) high school mathematics through trigonometry and mathematical analysis; or MATH C and MATH 1 at Bakersfield College
(b) one year of high school mechanical drawing or IN DR 10 at Bakersfield College
(c) One year of high school chemistry or CHEM 2a at Bakersfield College
(d) eligibility for ENGL 1a

Students missing one of the requirements (b), (c), or (d) still may be able to complete the program within two years, as long as requirement (a) is met on entrance. Students completing the two-year program will not be able to earn an A.S. Degree from Bakersfield College unless they have satisfied general education requirements with summer courses or courses taken prior to entering the program.

First Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 6a</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>CHEM 1a</td>
<td>General Chemistry</td>
<td>5.0</td>
</tr>
<tr>
<td>ENGR 48</td>
<td>Engineering Orientation</td>
<td>1.0</td>
</tr>
<tr>
<td>ENGR 49</td>
<td>Engineering Analysis and Design</td>
<td>1.0</td>
</tr>
<tr>
<td>ENGR 19/19p</td>
<td>Computer Programming for Science, Engineering and Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>IN DR 10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>IN DR 11</td>
<td>Introduction to Computer Aided Drafting and Design (CADD)</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 6b</td>
<td>Analytic Geometry and Calculus II</td>
<td>4.0</td>
</tr>
<tr>
<td>CHEM 1b or CHEM 3</td>
<td>General Chemistry and Chemical Analysis</td>
<td>5.0</td>
</tr>
<tr>
<td>CHEM 3</td>
<td>General Chemistry Analysis for Engineers</td>
<td>3.0</td>
</tr>
<tr>
<td>PHYSC 4a</td>
<td>Mechanics and Wave Motion</td>
<td>4.0</td>
</tr>
<tr>
<td>ENGR 24</td>
<td>Engineering Graphics and Descriptive Geometry</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>Technical Elective or General Education</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Note: CHEM 1b or CHEM 3 should be taken depending on major.

Third Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 6c</td>
<td>Calculus III</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYSC 4b</td>
<td>Heat, Electricity, and Magnetism</td>
<td>4.0</td>
</tr>
<tr>
<td>ENGR 45</td>
<td>Properties of Materials</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 1a</td>
<td>Expository Composition</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Fourth Semester

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 6d</td>
<td>Ordinary Differential Equations</td>
<td>3.0</td>
</tr>
<tr>
<td>PHYSC 4e</td>
<td>Optics and Modern Physics</td>
<td>4.0</td>
</tr>
<tr>
<td>ENGR 36</td>
<td>Engineering Mechanics—Statics</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGR 17</td>
<td>Introduction to Electrical Circuits</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Technical Elective or General Education</td>
<td>3-5.0</td>
</tr>
</tbody>
</table>

Three-Year Pre-Engineering/Engineering Program

Those students who have not met the requirements for the two-year program will need more than four semesters to complete the engineering core program. The program shown below assumes only satisfactory completion of high
school mathematics through intermediate algebra or MATH D at Bakersfield College and eligibility for ENGL 1. It allows students to complete the general education requirements for the Associate in Science Degree while completing the engineering core program before transferring to a university as a junior. Students completing the A.S. Degree should select general education courses which will also satisfy university general education courses, and should understand that, while they will have completed more than 70 transferable units, the university will give them credit for satisfactory completion of all transferable courses but for only 70 units toward the Bachelor's degree.

**First Semester**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH C</td>
<td>Plane Trigonometry</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 1</td>
<td>Introductory Composition</td>
<td>3-4.0</td>
</tr>
<tr>
<td>INDR 10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>ENGR 48</td>
<td>Engineering Orientation</td>
<td>1.0</td>
</tr>
<tr>
<td>INDR 11</td>
<td>Introduction to Computer Aided Drafting and Design</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1</td>
<td>Mathematical Analysis</td>
<td>4.0</td>
</tr>
<tr>
<td>CHEM 2a</td>
<td>Introductory General Chemistry</td>
<td>5.0</td>
</tr>
<tr>
<td>ENGR 24</td>
<td>Engineering Graphics and Descriptive Geometry</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Third Semester**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 6a</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>CHEM 1a</td>
<td>General Chemistry</td>
<td>5.0</td>
</tr>
<tr>
<td>ENGR 49</td>
<td>Engineering Analysis and Design</td>
<td>1.0</td>
</tr>
<tr>
<td>ENGR 191/192p</td>
<td>Computer Programming for Science, Engineering and Technology</td>
<td>3-3.</td>
</tr>
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</table>

**Fourth Semester**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 6b</td>
<td>Analytic Geometry and Calculus II</td>
<td>4.0</td>
</tr>
<tr>
<td>CHEM 1b or CHEM 3</td>
<td>General Chemistry and Chemical Analysis</td>
<td>5.0</td>
</tr>
<tr>
<td>PHYS 4a</td>
<td>Mechanics and Wave Motion</td>
<td>4.0</td>
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</table>

Note: CHEM 1b or CHEM 3 should be taken depending on major.

**Fifth Semester**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 6c</td>
<td>Calculus III</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYSC 4b</td>
<td>Heat, Electricity, and Magnetism</td>
<td>4.0</td>
</tr>
<tr>
<td>ENGR 45</td>
<td>Properties of Materials</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGL 1a</td>
<td>Expository Composition</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Sixth Semester**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 6d</td>
<td>Ordinary Differential Equations</td>
<td>3.0</td>
</tr>
<tr>
<td>PHYSC 4c</td>
<td>Optics and Modern Physics</td>
<td>4.0</td>
</tr>
<tr>
<td>ENGR 36</td>
<td>Engineering Mechanics—Statics</td>
<td>3.0</td>
</tr>
<tr>
<td>ENGR 17</td>
<td>Introduction to Electrical Circuits</td>
<td>3.0</td>
</tr>
<tr>
<td>MATH 6e</td>
<td>Elementary Linear Algebra</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**GEOLGY**

Before planning a study list, the community college student should consult his/her counselor and study the catalog of the senior institution to which he/she wants to transfer.

**UCLA**

**Required Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 1a</td>
<td>Physical Geology</td>
<td>4.0</td>
</tr>
<tr>
<td>CHEM 1a</td>
<td>General Chemistry</td>
<td>5.0</td>
</tr>
<tr>
<td>CHEM 1b</td>
<td>General Chemistry and Chemical Analysis</td>
<td>5.0</td>
</tr>
<tr>
<td>MATH 6a</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 6b</td>
<td>Analytic Geometry and Calculus II</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYSC 2a</td>
<td>General Physics—Mechanics and Heat</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYSC 2b</td>
<td>General Physics—Sound, Light, Electricity, Magnetism, Modern Physics</td>
<td>4.0</td>
</tr>
<tr>
<td>BIOL 3a</td>
<td>General Biology I</td>
<td>5.0</td>
</tr>
<tr>
<td>BIOL 3b</td>
<td>General Biology II</td>
<td>5.0</td>
</tr>
</tbody>
</table>

**San Diego State University**

**Required Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 1a or 10</td>
<td>Physical Geology</td>
<td>4.0</td>
</tr>
<tr>
<td>GEOL 10</td>
<td>Introduction to Geology</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOL 10L</td>
<td>Introductory Geology Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>GEOL 1b</td>
<td>Historical Geology</td>
<td>4.0</td>
</tr>
<tr>
<td>CHEM 1a</td>
<td>General Chemistry</td>
<td>5.0</td>
</tr>
<tr>
<td>CHEM 1b</td>
<td>General Chemistry and Chemical Analysis</td>
<td>5.0</td>
</tr>
<tr>
<td>BIOL 11</td>
<td>Concepts of Biology</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 6a</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Recommended Courses**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDR 10</td>
<td>Introduction to Industrial Drawing and Graphics</td>
<td>1.0</td>
</tr>
<tr>
<td>MATH 6b</td>
<td>Analytic Geometry and Calculus II</td>
<td>4.0</td>
</tr>
</tbody>
</table>
PHYSICAL SCIENCE

PHYSICS
All Four-Year Colleges and Universities
Before planning a study list, the community college student should consult a counselor and study the catalog of the senior institution to which he/she intends to transfer.

The introductory courses in Physics (Physics 2a-2b or 4a-4c) and Chemistry (Chemistry 1a-1b, 2a or 11) are designed to provide a foundation and understanding of the laws and principles of the physical world (matter and energy). These courses should be completed early in a student’s academic program to insure greater success in subsequent courses.

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>PHYS 4a</td>
<td>Mechanics and Wave Motion</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS 4b</td>
<td>Heat, Electricity, and Magnetism</td>
<td>4.0</td>
</tr>
<tr>
<td>PHYS 4c</td>
<td>Optics and Modern Physics</td>
<td>4.0</td>
</tr>
<tr>
<td>CHEM 1a</td>
<td>General Chemistry</td>
<td>5.0</td>
</tr>
<tr>
<td>CHEM 1b</td>
<td>General Chemistry and Chemical Analysis</td>
<td>5.0</td>
</tr>
<tr>
<td>MATH 6a</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 6b</td>
<td>Analytic Geometry and Calculus II</td>
<td>4.0</td>
</tr>
<tr>
<td>MATH 6c</td>
<td>Calculus III</td>
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</tr>
<tr>
<td>MATH 6d</td>
<td>Ordinary Differential Equations</td>
<td>3.0</td>
</tr>
<tr>
<td>CS 11</td>
<td>Introduction to Programming with Pascal</td>
<td>3.0</td>
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Recommended Courses

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<tr>
<td>BIOL 3a</td>
<td>General Biology I</td>
<td>5.0</td>
</tr>
<tr>
<td>BIOL 11</td>
<td>Concepts of Biology</td>
<td>4.0</td>
</tr>
<tr>
<td>CS 13</td>
<td>Introduction to Programming with FORTRAN</td>
<td>3.0</td>
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</table>

COURSE DESCRIPTIONS

The following abbreviations are commonly used in the course descriptions: lect lecture; lab laboratory; demo demonstration; Repeat repeatability (see policy on course repetition); CCS Course Classification System. Hours given in parentheses are total hours for the course. Hours lecture, lab, etc., are hours required per week usually. Prerequisites are expressed as minimum requirements. See page 47 for a complete explanation. (CSU) indicates transferable to California State Universities; (UC) indicates Transferable to University of California.

ARCHITECTURE

ARCH 1 Introduction to Architecture and Environmental Design (1.5 units).
Familiarization with the professional fields of architecture, landscape architecture, structural engineering, construction and city/regional planning. Introduction to schools of architecture programs as they relate to individual aptitudes. The design process. Guest speakers. Satisfies 0.5 unit counseling requirement for graduation from B.C. Hours: (27) 1.5 lect. Field trips required. CCS: Occupational Education. Transferable: CSU and private colleges.

ARCH 6 Materials of Construction (3 units)
Use and application of construction processes and materials. Hours: (54) 3 lect. Field trips required. CCS: Occupational Education. Transferable: CSU and private colleges.

ARCH 10 Introduction to Industrial Drawing and Graphics (1 unit)
Introductory course dealing with conventional drafting methods to obtain graphic solutions, design, modifications and delineations for industrial, architectural, engineering and interior drawings. Emphasizes basic drafting skills. Recommended: Reading Level 1. Hours: (36) 2 lect, 2 lab for 9 weeks. CCS: Occupational Education. Transferable: CSU and private colleges. Note: Not open to students with credit in IN DR 10.
ARCH 11 Introduction to Drawing and Perspective (3 units)
Basic techniques used in graphic communication including orthographic and isometric projections, sections, mechanical perspectives and shade and shadows. Prerequisite: IN DR 10. Recommended: Reading Level 1. Hours: (108) 2 lect, 4 lab. CCS: Occupational Education. Transferable: UC, CSU and private colleges.

ARCH 12 Basic Graphics (3 units)
Drawing as a communication tool in the environmental design fields. Exercises to develop basic skills and speed in the representation of ideas. Use of various drawing media. Prerequisites: ARCH 11. Hours: (108) 2 lect, 4 lab. CCS: Occupational Education. Transferable: UC, CSU and private colleges.

ARCH 13 Graphic Analysis and Communication Skills (3 units)
Further development of freehand graphic communication skills for representation of conceptual ideas analysis, and design concepts. Demonstrates the link between graphics, design process and communications. Prerequisite: ARCH 11. Hours: (108) 2 lect, 4 lab. Field trips required. CCS: Occupational Education. Transferable: CSU and private colleges.

ARCH 21 Architectural Design Fundamentals I (3 units)
Theories, principles, methods and means pertaining to the creation of two-and three-dimensional visual organizations to communicate intended concepts and meanings. Prerequisite: ARCH 1, 11, and concurrent enrollment in ARCH 12. Hours: (108) 2 lect, 4 lab. Field trips required. CCS: Occupational Education. Transferable: UC, CSU and private colleges.

ARCH 22 Architectural Design Fundamentals II (3 units)
Continuation of the content and issues introduced in ARCH 21 plus the theories, principles, methods and means pertaining to the creation of architectural forms, space and organizations and incorporation of function and light as issues that shape the built environment and support the communication of intended concepts and meanings. Prerequisite: ARCH 1, 11, 12 and 21. Hours: (126) 1 lect, 6 lab. Field trips required. CCS: Occupational Education. Transferable: UC, CSU and private colleges.

ARCH 23 Architectural Design Fundamentals III (3 units)
Continuation of the content and issues introduced in ARCH 21 and ARCH 22 plus the theories, principles, methods and means pertaining to the incorporation of context, structure and climate as issues that shape the built environment and support the communication of intended concepts and meaning. Prerequisite: ARCH 22. Hours: (126) 1 lect, 6 lab. Field trips required. CCS: Occupational Education. Transferable: UC, CSU and private colleges.

ARCH 30 Architectural Model Building (1 unit)
Develops techniques and methods required in constructing various types of presentation and structural models used in the architectural field. Prerequisite: ARCH 6, 11 and concurrent enrollment in ARCH 31. Hours: (54) 1 lect, 2 lab. Field trips required. CCS: Occupational Education. Transferable: CSU and private colleges.

ARCH 31 Architectural Practice (3 units)
Wood construction methods and processes. Construction documents used as communication medium for such methods and processes. Prerequisites: ARCH 6, 11 and concurrent enrollment in ARCH 30. Hours: (108) 2 lect, 4 lab. Field trips required. CCS: Occupational Education. Transferable: CSU and private colleges.

ARCH 32 Architectural Computer Graphics (2 units)
Introduction to the application of computers in architecture, including operating systems, applications and graphic systems as they relate to construction documents and design technology. Prerequisites: IN DR 11, ARCH 31. Recommended: Reading Level 1. Hours: (72) 1 lect, 3 lab. Field trips required. CCS:
ARCH 33 Architectural Computer Practice (3 units)
The use of computer applications as a communication instrument in the design development and construction document phases of a light commercial project. Theory and application of laws and codes as they affect such buildings. Prerequisite: ARCH 32. Hours: (108) 2 lect, 4 lab. Field trips required. CCS: Occupational Education. Transferable: CSU and private colleges.

ARCH 45 Building Codes (3 units)

ARCH 46 Building and Related Codes (3 units)
Study of the uniform building, plumbing, mechanical and electrical codes. A companion course to ARCH 45 offering a greater in-depth study of the various codes which make up the Code of Building Regulations. Recommended: Reading Level 1. Hours: (54) 3 lect. Field trips required. CCS: Occupational Education. Transferable: CSU and private colleges.

ASTRONOMY
ASTR 1 Elementary Astronomy (3 units)
Introductory course dealing with the fundamental observations and scientific models of astronomy. Among topics included: the motions and properties of the sun, moon, earth, planets, stars, galaxies, the properties of electromagnetic radiation, astronomical instruments, and stellar and cosmic evolution. Recommended: Reading Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

CHEMISTRY
Credit limitations may apply. For specific information see a counselor.

The introductory courses in Chemistry (Chemistry 1a-1b, 2ysics (Physics 2a-2b or 4a-4c) are designed to provide the basic foundation in, and understanding of the laws and principles of the physical world (matter and energy) for all science, health, and pre-professional majors. These courses should be completed early in a student’s academic program sequence of study to ensure greater academic success in subsequent courses in the student’s field of interest and a more complete understanding of that field.

CHEM 1a General Chemistry (5 units)
Basic principles of chemistry, including atomic structure, stoichiometry, reaction energy, chemical bond, periodic relationships of the elements, states and properties of matter, solutions, introduction to acids and bases, chemical kinetics, nuclear chemistry, chemical equilibrium, a brief introduction to descriptive chemistry of the elements, and other topics as appropriate. The laboratory emphasizes quantitative methods. Prerequisites: High School chemistry and 1 year of algebra with a grade of “B” or CHEM 2a with a grade of “C.” Recommended: Reading Level 1. Hours: (162) 3 lect, 6 lab. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN CHEM 2)

CHEM 1b General Chemistry and Chemical Analysis (5 units)
Continuation of CHEM 1a. Includes details of acid/base, ionic equilibria, oxidation-reduction, electro-chemistry, chemical thermodynamics, nuclear chemistry, coordination chemistry, the descriptive chemistry of selected metallic elements, with an emphasis on transition metals, and introduction to organic chemistry, and other topics as appropriate. The laboratory includes a systematic study of the theory and practice of qualitative inorganic analysis, quantitative techniques, and descriptive experiments. Prerequisite: CHEM 1a with a grade of “C.” Hours: (162) 3 lect, 6 lab. CCS: Liberal Arts
PHYSICAL SCIENCE

& Sciences. Transferable: UC, CSU and private colleges. (CAN CHEM 4)

CHEM 2a Introductory General Chemistry (5 units)
The principles and applications of general college chemistry. Designed for liberal arts, physical education and some nursing majors. Recommended also for students who need additional background for the more intensive course, CHEM 1a. Prerequisite: MATH A with a grade of “C” or equivalent. Recommended: Reading Level 1. Hours: (162) 3 lect, 6 lab. Field trips may be required. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: Not open to students with credit in CHEM 1a. (CAN CHEM 6)

CHEM 3 General Chemistry Analysis for Engineers (3 units)
Continuation of CHEM 1a; primarily for engineering majors. Includes ionic equilibria, oxidation-reduction, electrochemistry, chemical thermodynamics, metallurgy, nuclear chemistry, coordination chemistry, descriptive chemistry of selected transition elements, carbon, silicon and ceramic compounds. Laboratory includes quantitative techniques and descriptive experiments. Prerequisite: CHEM 1a with a grade of “C.” Recommended: Reading Level 1. Hours: (90) 2 lect, 3 lab. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

CHEM 8 Elementary Organic Chemistry (3 units)
A survey of organic compounds, including the fundamental organic functional groups, proteins, fats, carbohydrates, and representative types of organic chemical reactions. For students interested in chemical industries, medicine, dentistry, pharmacy, biology and related biological fields, engineering, medical terminology, and chiropractic, or students requiring only one semester of organic chemistry to complete chemistry requirements. Prerequisites: CHEM 1a or CHEM 2a with a minimum grade of “B.” Concurrent enrollment in CHEM 9 required.

CHEM 9 Organic Chemistry Laboratory (3 units)
Covers fundamental laboratory techniques in organic chemistry including synthesis, separations, and instrumental analysis. Emphasizes handling of small sample sizes. Prerequisite: Concurrent enrollment in CHEM 8. (Note: Students who have taken CHEM 8 prior to 1987 may enroll.) Hours: (108) 5 lab, 1 disc. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

CHEM 11 Principles of Inorganic, Organic and Biochemistry (5 units)
A systematic study of the principles of inorganic, organic and biochemistry using a qualitative and quantitative approach. Topics include physical principles of chemistry; inorganic compounds and reactions; a survey of organic chemistry-classification, compounds, reactions, nomenclature; biochemistry-classification, composition, reactions in living organisms. Prerequisite: MATH A or equivalent with a grade of “C.” Recommended: Reading Level 1. Hours: (162) 3 lect, 6 lab. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

CHEM 49 Applied Chemistry (4 units)
The systematic study of the principles of inorganic, organic, and biochemistry using a qualitative and quantitative approach. Topics include physical principles of chemistry; inorganic compounds and reactions; a survey of organic chemistry—classification, compounds, reactions, nomenclature; biochemistry—classification, composition, reactions in living organisms. The course emphasizes technical aspects of chemistry relating to everyday processes and industrial applications. Prerequisite: MATH A or equivalent. Recommended: Reading Level 1. Hours: (108) 3 lect, 3 lab. Field trips required. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges. Note: Not open to students with credit in EHMT 49.
ENGR 17 Introduction to Electrical Circuits (3 units)
Principles and techniques of D.C. and A.C. circuit analysis, including Kirchoff’s laws, mesh and nodal analysis, Thevinen’s and Norton’s theorems, impedance, phasors, frequency response, power calculations, natural and forced responses, analog building blocks, operational amplifiers, and digital building blocks. Prerequisites: MATH 6c, PHYSC 4b. Recommended: Concurrent enrollment in MATH 6d. Hours: (72) 3 lect, 1 disc. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN ENGR 12)

ENGR 19f/19p Computer Programming for Science, Engineering and Technology (3-3 units)
Methods used in the solution of science and engineering problems on digital computers. Programming of algorithms for solutions of numerical problems using a higher level language. Pascal is the language used in ENGR 19p, recommended for computer science or electrical engineering majors. FORTRAN 77 is the language used in ENGR 19f, recommended for other majors. Prerequisite: MATH 6a. Recommended: Concurrent enrollment in MATH 6d. Hours: (72) 3 lect, 1 disc. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN ENGR 4)

ENGR 24 Engineering Graphics and Descriptive Geometry (2 units)
Orthographic projection, auxiliary views, sectioning, threads and fasteners, dimensioning, tolerance, and working drawing. Descriptive geometry used to obtain points, lines, planes, intersections, developments and spatial relationships. Instrument and computer aided drafting systems used as aid to visualization and design. Prerequisites: IN DR 10, IN DR 11 and MATH C or higher. Recommended: Concurrent enrollment in IN DR 12. Hours: (72) 1 lect, 3 lab. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

ENGR 36 Engineering Mechanics — Statics (3 units)
Principles of statics and their application to engineering problems, equilibrium of two-dimensional and three-dimensional systems of particles and rigid bodies. Concentrated and distributed force systems, structures, friction, virtual work and moments of inertia. Prerequisites: PHYSC 4a, MATH 6a. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN ENGR 8)

ENGR 45 Properties of Materials (3 units)
Internal structure of engineering materials. Characteristics of single and multiple phase metals; polymer, ceramics and composite materials. Mechanical, thermal, chemical, electrical and radiation behavior of engineering materials. Laboratory investigation of the physical properties of metals, wood, soils, and concrete, and polymers. Prerequisites: MATH C and CHEM 1a and PHYSC 4a or CHEM 2a and PHYSC 2a. Hours: (90) 2 lect, 3 lab. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN ENGR 4)

ENGR 48 Engineering Orientation (1 unit)
Survey of engineering as a profession. All branches discussed with respect to career opportunities, educational requirements, development of a personal education plan. Satisfies 0.5 unit educational planning requirement for graduation from Bakersfield College. Recommended: MATH A, Reading Level 1. Hours: (18) 2 lect for 9 weeks. Field trips required. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

ENGR 49 Engineering Analysis and Design (1 unit)
Introduction to the engineering design process and to the mathematical, scientific, and computational skills required to solve engineering problems. Students will design and construct a project. Prerequisite: MATH 6a (may be taken concurrently). Recommended: ENGR 48, Reading Level 1. Hours: (18) 2 lect for 9 weeks. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.
PHYSICAL SCIENCE

GEOGRAPHY

GEOG 1 Physical Elements of Geography (3 units)
A study of the basic elements of physical geography; climate, land forms, soils, natural vegetation and their patterns of world distribution. Recommended: Reading Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN GEOG 2)

GEOG 1L Physical Geography Laboratory (1 unit)
Laboratory assignments designed to accompany GEOG 1 lectures. Map s and mapping, location analysis, earth-sun relationship, weather and climate statistical and regional analysis, topographic maps and landform building processes. Emphasis on spatial relationships of physical environmental elements. Recommended: Reading Level 1, GEOG 1 (may be taken concurrently). Hours: (54) 2 lab, 1 quiz/demo. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

GEOLOGY

Credit limitations may apply. For specific information see a counselor.

GEOL 1a Physical Geology (4 units)
An introduction to the principles of geology with emphasis on the structure and origin of the earth, its present and past landscapes and the processes at work changing its surface. Students desiring laboratory experience should either substitute GEOL 1a or enroll in GEOL 10L concurrently with GEOL 10. Recommended: Reading Level 1. Hours: (54) 3 lect. At least one Saturday field trip or equivalent required. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: Not open to students with credit in GEOL 1a.

GEOL 10L Introductory Geology Laboratory (1 unit)
Exercises planned to accompany the lectures of GEOL 10. Identification of rocks and minerals, topographic and geologic map exercises demonstrating the work of water, wind, ice and gravity and effects of volcanism and earthquakes. Designed for students preparing to teach in the elementary grades and for all non-science majors. Recommended: Reading Level 1, concurrent enrollment in GEOL 10. Hours: (54) 3 lab. Field trip required. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

GEOL 12 Geology of California (3 units)
An elementary course dealing with the geologic history, structure, topography and mineral resources of California and adjoining areas. Prerequisites: GEOL 1a or GEOL 10. Hours: (54) 3 lect. One field trip or equivalent required. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

GEOL 35a Rocks and Minerals (1 unit)
A study of rocks and minerals. Students will learn to identify the major rock-forming minerals and to recognize their relationships as components of the various classes of rocks. From the identification of rocks, recognition of the environmental conditions of deposition will follow. Field work will allow the examination of the field relationships of various rocks and the beginning of a collection of rock and mineral specimens. Recommended: Reading Level 1. Hours: (18) 9 lect/lab for 2 weeks. Field trip required. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges.
GEOL 35b Geology of Kern County (1 unit)
A study of the geologic history and landforms of Kern County, and the geologic forces and processes that created them. As part of this course, students will learn about many of the different rocks and minerals of Kern County, tectonic activity and mountain building, volcanic activity, earthquakes and weathering. From materials presented, students will be able to understand the geologic forces that shaped Kern County. A field trip is required which will permit the examination and recognition of different geological environments. **Recommended:** Reading Level 1. **Hours:** (18) 9 lect for 2 weeks. Field trip required. CCS: Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

**PHYSICAL SCIENCE**

Credit limitations may apply. For specific information see a counselor.

PHYS 10 College Physical Science (3 units)
A survey of the basic physical phenomena of mechanics, heat, light, sound, electricity, chemistry, geology, meteorology, and astronomy. Emphasizes basic concepts, relationships, principles and application to modern daily life. Topics are developed with a minimum of mathematical presentation. Designed for all non-science students and education majors to meet the non-laboratory Physical Science general education requirement. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

PHYS 11 General Physical Science (4 units)
A survey of the basic physical phenomena of mechanics, heat, light, sound, electricity, chemistry, geology, meteorology, and astronomy. Emphasizes basic principles, relationships, status and applications to modern civilization. Topics are developed with a minimum of mathematical presentation. Designed for all non-science, industrial technology and education majors. **Recommended:** Reading Level 1. **Hours:** (108) 3 lect/demo/disc, 3 lab. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

PHY S 35e Cup and Saucer Chemistry (1 unit)
An inexpensive approach to studying chemical happenings. Emphasizes a "hands on" approach to doing and developing experience in chemistry that leads to an understanding of investigation, Metric, particle nature of matter, energy and the shape of things. **Recommended:** Reading Level 1. **Hours:** (18) 9 lect/disc for 2 weeks. CCS: Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

PHY S 248 Cooperative Work Experience Education (1-8 units, limit 16 units)
See W EXP 248 description.

PHY S 249 Cooperative Work Experience Education (1-4 units, limit 16 units)
See W EXP 249 description.

**PHYSICS**

Credit limitations may apply. For specific information see a counselor.

The introductory courses in Physics (Physics 2a-2b or 4a-4c) and Chemistry (Chemistry 11, 2a or 1a-1b) are designed to provide the basic foundation in and understanding of the laws and principles of the physical world (matter and energy) for all science, health science, and pre-professional majors. These courses should be completed early in a student's academic program sequence of study to ensure greater academic success in subsequent courses in the student's field of interest and a more complete understanding of that field.

PHYS 2a General Physics — Mechanics and Heat (4 units)
The properties of matter, mechanics and heat. Emphasizes understanding laws, principles, and theories. Required for most science, pre-medical, most other pre-professional and technical majors. **Prerequisites:** MATH D, MATH C (may be taken concurrently). **Recommended:** Reading Level 1. **Hours:** (126) 4 lect, 3 lab. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. (CAN PHYS SEQ A; PHYS 2)
PHYSICAL SCIENCE

PHYSC 2b General Physics — Sound, Light, Electricity, Magnetism, Modern Physics
(4 units)
The properties of waves, sound, light, electricity, magnetism, atomic and nuclear physics. Emphasizes understanding laws, principles and theories. Required for most science, pre-medical, most other pre-professional and technical majors. Prerequisites: MATH C and MATH D, PHYSC 2a, or high school physics with a "C." Hours: (126) 4 lect, 3 lab. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN PHYS SEQ A; PHYS 4)

PHYSC 4a Mechanics and Wave Motion
(4 units)
The first in a sequence of three semester courses required of physics, engineering, and other majors requiring a thorough physics background. Includes vectors, kinematics, dynamics, momentum, energy, rotation, gravitation, oscillations, fluids, and wave motion. Prerequisite: MATH 6a. Recommended: Reading Level 1. Hours: (126) 3 lect, 1 disc, 3 lab. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN PHYS 8)

PHYSC 4b Heat, Electricity, and Magnetism
(4 units)
The fundamental concepts and phenomena of heat and electricity and magnetism, including temperature, thermodynamics, kinetic theory of gases, electric charge, electric field, electric potential, capacitance, dielectrics, direct and alternating current circuits, magnetic field, magnetic force, electromagnetic induction, magnetic properties of matter, Maxwell’s equations, electromagnetic oscillations and electromagnetic waves. Prerequisites: PHYSC 4a, MATH 6b, concurrent enrollment in MATH 6c. Hours: (126) 3 lect, 1 disc, 3 lab. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN PHYS 12)

PHYSC 4c Optics and Modern Physics
(4 units)
An intensive study of optics and a thorough introduction to the physics of the 20th century. Topics include the nature and propagation of light, reflection, refraction, polarization, diffraction, optical instruments, special relativity, quantum theory, atomic and nuclear physics, statistical distribution functions, and electrical conduction and other properties of solids. Prerequisite: PHYSC 4b. Hours: (126) 3 lect, 1 disc, 3 lab. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN PHYS 14)
Public Administration

Administration of Justice
Correctional Administration
Fire Technology
Programs in the Public Administration Department are designed to provide education and training in public safety and service, law enforcement and criminal justice, fire protection and related operations. Both theoretical and practical courses are offered.

Course Repeat Policy: Many inservice courses allow repeated enrollment. Students should be aware that repeatability policies allow a course repeat when either: (1) a less than satisfactory grade was earned, or (2) course content has changed significantly since the previous enrollment. For purposes of this section, course repeats to acquire new content will be approved if two or more years have passed since the previous enrollment.

Bakersfield College’s Regional Fire Technology Academy (RFTA) was authorized by the California Fire Service Training and Education System (CFSTES) in 1980, with programs of study leading to Certified Fire Officer, Certified Chief Officer and Certified Fire Chief. RFTA sponsors many cooperative training programs with federal, state and local fire protection agencies.

Individuals may develop a program suitable to their career goals with the aid of a college counselor. Courses may lead to the achievement of specific career goals, immediate employment, an Associate Degree, or transfer credits that satisfy requirements for a Bachelor’s Degree in Criminology, Police Science, Correctional Administration or Fire Technology.

CERTIFICATES OF ACHIEVEMENT

FI RE TECHNOLOGY CERTIFICATE

Minimum units required in discipline: 30

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<tr>
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<th>Course Title</th>
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<tr>
<td>FI TC 1</td>
<td>Introduction to Fire Technology</td>
<td>3.0</td>
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<tr>
<td>FI TC 2 or EHMT 51</td>
<td>Fundamentals of Personal Fire Safety and Emergency Action</td>
<td>3.0</td>
</tr>
<tr>
<td>FI TC 3</td>
<td>Fundamentals of Fire Service Operations</td>
<td>3.0</td>
</tr>
<tr>
<td>FI TC 4</td>
<td>Fundamentals of Fire Protection Chemistry</td>
<td>3.0</td>
</tr>
<tr>
<td>FI TC 5</td>
<td>Fundamentals of Fire Prevention</td>
<td>3.0</td>
</tr>
<tr>
<td>FI TC 6</td>
<td>Fundamentals of Fire Protection Systems and Equipment</td>
<td>3.0</td>
</tr>
</tbody>
</table>

| FI TC 72h or EMT 1 | Emergency Medical Technician I Non-Ambulance | 4.0 |
| FI TC 72h or EMT 1 | Emergency Medical Care | 4.0 |
| TOTAL             | 22.0 |

General Education Courses:

| ENGL 60* or Basic Usage/Grammar | 4.0 |
| ENGL 1 or Introductory Composition | 4.0 |
| ENGL 1a or Expository Composition | 4.0 |
| PSYCH 1a or General Psychology | 3.0 |
| SOC 1 | Introduction to Sociology | 3.0 |
| SPCH 1 | Speech Communications | 3.0 |
| TOTAL | 10.0 |

*ENGL 60 and PSYCH 51 are for Fire Technology Certificate only.

Note: FI TC 1 is waived for students who have a minimum of two years service as a full-time firefighter or who have an equivalent course. FI TC 2 is waived for students who are full-time firefighters. Elective Fire Technology courses must be substituted for courses waived. A G.P.A. of at least 2.0 is required in the Certificate Program. Of the 30 units required, a minimum of 12 units must be completed at Bakersfield College.

AREAS OF SPECIALIZATION

HAZARDOUS MATERIALS

<table>
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<th>Units</th>
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<tr>
<td>FI TC 70a</td>
<td>Hazardous Material for First Responders (In-service Training)</td>
<td>1.0</td>
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<tr>
<td>FI TC 70b</td>
<td>First Responder “Operational” Decontamination</td>
<td>0.5</td>
</tr>
<tr>
<td>FI TC 70c</td>
<td>Hazardous Materials Incident Commander/Scene Manager</td>
<td>1.0</td>
</tr>
<tr>
<td>FI TC 70d</td>
<td>Hazardous Materials Tech/Spec 1A: Basic Chemistry</td>
<td>1.0</td>
</tr>
<tr>
<td>FI TC 70e</td>
<td>Hazardous Materials Tech/Spec 1B: Applied Chemistry</td>
<td>1.0</td>
</tr>
<tr>
<td>FI TC 70f</td>
<td>Hazardous Materials Tech/Spec 1C: Incident Considerations</td>
<td>1.0</td>
</tr>
<tr>
<td>FI TC 70g</td>
<td>Hazardous Materials Tech/Spec 1D: Tactical Field Operations</td>
<td>1.0</td>
</tr>
<tr>
<td>FI TC 70h</td>
<td>Hazardous Materials Tech/Spec 1E: Special Mitigation Techniques</td>
<td>1.0</td>
</tr>
<tr>
<td>FI TC 70i</td>
<td>Hazardous Materials Tech/Spec 1F: Advanced Field Operations</td>
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WILDLAND FIRE CONTROL

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FI TC 71a</td>
<td>Seasonal Firefighter Basic Training 1</td>
<td>2.0</td>
</tr>
<tr>
<td>FI TC 71b</td>
<td>Seasonal Firefighter Basic Training 2</td>
<td>1.5</td>
</tr>
<tr>
<td>FI TC 71c</td>
<td>Wildland Fire Behavior and Control</td>
<td>0.5</td>
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</table>
PUBLIC ADMINISTRATION

RESCUE AND LIFE SAFETY

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>FITC 72a</td>
<td>Heavy Duty Rescue 1</td>
<td>0.5</td>
</tr>
<tr>
<td>FITC 72b</td>
<td>Heavy Duty Rescue 2</td>
<td>0.5</td>
</tr>
<tr>
<td>FITC 72c</td>
<td>Heavy Duty Rescue 3</td>
<td>1.0</td>
</tr>
<tr>
<td>FITC 72d</td>
<td>Swift Water Rescue</td>
<td>1.0</td>
</tr>
<tr>
<td>FITC 72e</td>
<td>Advanced Swift Water Rescue</td>
<td>1.0</td>
</tr>
<tr>
<td>FITC 72f</td>
<td>Auto Extrication</td>
<td>0.5</td>
</tr>
<tr>
<td>FITC 72g</td>
<td>Aircraft Fire Protection and Rescue</td>
<td>1.0</td>
</tr>
<tr>
<td>FITC 72h</td>
<td>Emergency Medical Technician 1 Non-Ambulance</td>
<td>4.0</td>
</tr>
<tr>
<td>FITC 72i</td>
<td>Emergency Medical Technician 1 Recertification</td>
<td>1.0</td>
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</tbody>
</table>

SPECIALIZED TRAINING PROGRAMS

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>FITC 73</td>
<td>Incident Command System</td>
<td>0.5</td>
</tr>
<tr>
<td>FITC 74</td>
<td>Petroleum Fire Procedures</td>
<td>0.5</td>
</tr>
<tr>
<td>FITC 75</td>
<td>Fire Fighting Techniques</td>
<td>0.5</td>
</tr>
<tr>
<td>FITC 76</td>
<td>Fire Fighting Skills</td>
<td>3.0</td>
</tr>
<tr>
<td>FITC 77</td>
<td>Advanced Structure Fire Training</td>
<td>0.5</td>
</tr>
<tr>
<td>FITC 78</td>
<td>Advanced Officer Training</td>
<td>0.5</td>
</tr>
<tr>
<td>FITC 79</td>
<td>Instructor Orientation</td>
<td>0.5</td>
</tr>
<tr>
<td>FITC 81</td>
<td>Orientation to Fire Technology</td>
<td>0.5</td>
</tr>
<tr>
<td>FITC 83</td>
<td>Topics in Incident Command System Part I</td>
<td>0.5-4.0</td>
</tr>
<tr>
<td>FITC 84</td>
<td>Topics in Incident Command System Part II</td>
<td>0.5-4.0</td>
</tr>
</tbody>
</table>

FIRE OFFICER CERTIFICATION (NFPA STANDARD 1021)

Minimum units required in discipline: 22

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FITC 50a</td>
<td>Fire Command 2—Command Tactics at Major Fires</td>
<td>2.0</td>
</tr>
<tr>
<td>FITC 50b</td>
<td>Fire Command 2b—Scene Management at Major Incidents</td>
<td>2.0</td>
</tr>
<tr>
<td>FITC 50c</td>
<td>Fire Command 2c—High-Rise Fire Tactics</td>
<td>2.0</td>
</tr>
<tr>
<td>FITC 50d</td>
<td>Fire Command 2d—Management of Large-Scale Disasters</td>
<td>2.0</td>
</tr>
<tr>
<td>FITC 50e</td>
<td>Fire Command 2e—Wildland Fire Tactics</td>
<td>2.0</td>
</tr>
<tr>
<td>FITC 50f</td>
<td>Fire Management 2a—Organizational Development and Human Relations</td>
<td>2.0</td>
</tr>
<tr>
<td>FITC 50g*</td>
<td>Fire Management 2b—Finance and Business Management for Chief Officers</td>
<td>2.0</td>
</tr>
<tr>
<td>FITC 50h*</td>
<td>Fire Management 2c—Computer Application for the Fire Service</td>
<td>2.0</td>
</tr>
<tr>
<td>FITC 50i</td>
<td>Fire Management 2d—Master Planning</td>
<td>2.0</td>
</tr>
<tr>
<td>FITC 50j</td>
<td>Fire Management 2e—Staff Assignments and Line Functions</td>
<td>2.0</td>
</tr>
<tr>
<td>FITC 50k*</td>
<td>Fire Investigation</td>
<td>2.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>22.0</td>
</tr>
</tbody>
</table>

*Courses are offered from State Fire Marshall’s Office only.

DRIVER/OPERATOR CERTIFICATION

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FITC 59</td>
<td>Fire Service Hydraulics</td>
<td>2.0</td>
</tr>
<tr>
<td>FITC 60</td>
<td>Driver/Operator Certification</td>
<td>3.0</td>
</tr>
</tbody>
</table>

FIREFIGHTER I CERTIFICATION

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FITC 61</td>
<td>Fire Fighter Trainee Academy</td>
<td>3.0</td>
</tr>
<tr>
<td>FITC 62</td>
<td>Fire Fighter I Academy</td>
<td>8.0</td>
</tr>
</tbody>
</table>

FIREFIGHTER II CERTIFICATION

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FITC 63</td>
<td>Fire Fighter II Academy</td>
<td>6.0</td>
</tr>
</tbody>
</table>

VOLUNTEER FIREFIGHTER CERTIFICATION

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FITC 64a</td>
<td>Beginning Volunteer Firefighter</td>
<td>1.0</td>
</tr>
<tr>
<td>FITC 64b</td>
<td>Advanced Volunteer Fire Fighter Certification</td>
<td>4.5</td>
</tr>
</tbody>
</table>
ASSOCIATE IN ARTS DEGREE PROGRAMS
Students must comply with the requirements as shown in the catalog under Graduation Requirements. Counselors/advisors will assist students in planning for an associate degree.

ADMINISTRATION OF JUSTICE
This program provides a course of study to prepare students for employment in private or public criminal justice agencies which are wide and varied. Students may choose between occupational objectives, Associate in Arts Degree, and/or Baccalaureate Degree.

Minimum units required in discipline: 18

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADMJ 1</td>
<td>Introduction to Administration of Justice</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>ADMJ 2</td>
<td>Criminal Law</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>ADMJ 3</td>
<td>Introduction to Evidence</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>ADMJ 4</td>
<td>Constitutional Criminal Procedure</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>ADMJ 5</td>
<td>Community Relations</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>OR completion of 18 units in ADMJ 68—Peace Officer's Basic Training (between 08/88 and 12/91).</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Electives—Select one to meet minimum requirements of the discipline.

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADMJ 9</td>
<td>Juvenile Procedures</td>
<td>3.0</td>
</tr>
<tr>
<td>ADMJ 12</td>
<td>Legal and Scientific Aspects of Evidence</td>
<td>3.0</td>
</tr>
<tr>
<td>ADMJ 16</td>
<td>Supervision and Leadership</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Recommended for CSU

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADMJ 9</td>
<td>Juvenile Procedures</td>
<td>3.0</td>
</tr>
<tr>
<td>ADMJ 12</td>
<td>Legal and Scientific Aspects of Evidence</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYCH 1a</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 1</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Corrections is the part of the criminal justice system responsible for juveniles and adults who have been charged with or convicted of a criminal offense. It involves working with the individual at the local, state, or federal level of government. Corrections professionals subscribe to the philosophy of protecting society and aiding in the rehabilitation of the offender. The Correctional Administration Program is designed to expose the student to different aspects of the correctional system.

Minimum units required in discipline: 18

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COR A 1</td>
<td>Introduction to Correctional Administration</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>COR A 2</td>
<td>Institutional Supervision and Treatment of the Offender</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>COR A 3</td>
<td>Fundamentals of Interviewing and Counseling</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>COR A 4</td>
<td>Fundamentals of Probation and Parole</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>SOC 1 or</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>PSYCH 1a</td>
<td>General Psychology</td>
<td>3.0</td>
<td></td>
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</tbody>
</table>

Suggested Courses: Select one to meet minimum requirements of the discipline.

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADMJ 2</td>
<td>Criminal Law</td>
<td>3.0</td>
</tr>
<tr>
<td>ADMJ 3</td>
<td>Introduction to Evidence</td>
<td>3.0</td>
</tr>
<tr>
<td>ADMJ 4</td>
<td>Constitutional Criminal Procedure</td>
<td>3.0</td>
</tr>
<tr>
<td>ADMJ 19</td>
<td>Juvenile Procedures</td>
<td>3.0</td>
</tr>
<tr>
<td>PSYCH 5</td>
<td>Elementary Statistics for the Behavioral and Social Sciences</td>
<td>4.0</td>
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</table>

FIRE TECHNOLOGY

Minimum units required in discipline — 22

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FITC 1</td>
<td>Introduction to Fire Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>FITC 2</td>
<td>Fundamentals of Personal Fire Safety and Emergency Action</td>
<td>3.0</td>
</tr>
<tr>
<td>FITC 3</td>
<td>Fundamentals of Fire Service Operations</td>
<td>3.0</td>
</tr>
<tr>
<td>FITC 4</td>
<td>Fundamentals of Fire Protection Chemistry</td>
<td>3.0</td>
</tr>
<tr>
<td>FITC 5</td>
<td>Fundamentals of Fire Prevention</td>
<td>3.0</td>
</tr>
<tr>
<td>FITC 6</td>
<td>Fundamentals of Fire Protection Systems and Equipment</td>
<td>3.0</td>
</tr>
<tr>
<td>FITC 72h</td>
<td>Emergency Medical Technician 1—Non-Ambulance</td>
<td>4.0</td>
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</tbody>
</table>

ASSOCIATE IN SCIENCE

DEGREE PROGRAM

FIRE TECHNOLOGY

Minimum of units required in discipline: 32

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FITC 1</td>
<td>Introduction to Fire Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>FITC 2</td>
<td>Fundamentals of Personal Fire Safety and Emergency Action</td>
<td>3.0</td>
</tr>
<tr>
<td>FITC 3</td>
<td>Fundamentals of Fire Service Operations</td>
<td>3.0</td>
</tr>
<tr>
<td>FITC 4</td>
<td>Fundamentals of Fire Protection Chemistry</td>
<td>3.0</td>
</tr>
<tr>
<td>FITC 5</td>
<td>Fundamentals of Fire Prevention</td>
<td>3.0</td>
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</tbody>
</table>

(Continued next page)
FI TC 6       Fundamentals of Fire Protection Systems and Equipment 3.0
FI TC 72h      Emergency Medical Technician 1—Non-Ambulance 4.0
FI TC 51a      Fire Management 1A 2.0
FI TC 51b      Fire Command 1A 2.0
FI TC 51c      Fire Command 1B 2.0
FI TC 51d      Fire Prevention 1A 2.0
FI TC 51e      Fire Prevention 1B 2.0

COURSE DESCRIPTIONS
The following abbreviations are commonly used in the course descriptions: **lect** lecture; **lab** laboratory; **demo** demonstration; **Repeat** repeatability (see policy on course repetition); **CCS** Course Classification System.

Hours given in parentheses are total hours for the course. Hours lecture, lab, etc., are hours required per week usually. Prerequisites are expressed as minimum requirements. See page 47 for a complete explanation. (CSU) indicates transferable to California State Universities; (UC) indicates Transferable to University of California.

ADMINISTRATION OF JUSTICE
Credit limitations may apply. For specific information see a counselor.

ADM J 1 Introduction to Administration of Justice (3 units)
History and philosophy of justice as it evolved throughout the world; in-depth study of America's criminal justice system and various sub-systems; roles and role expectations of systems agents in their interrelationships in society; concepts of crime causation, punishments and rehabilitation; ethics, education and training for professionalism in the social system. **Recommended:** Reading Level 1.
**Hours:** (54) 3 lect. CCS: Occupational Education. **Transferable:** UC, CSU and private colleges.

ADM J 2 Criminal Law (3 units)
Historical development, philosophy of law and constitutional provisions; definitions, classification of crimes, and their application to the system of administration of justice; legal research, review of case law, methodology and concepts of law as a social force. Explores crimes against persons, property, and the state as a social, religious, and historical ideology. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect. CCS: Occupational Education. **Transferable:** UC, CSU and private colleges.

ADM J 3 Introduction to Evidence (3 units)
Origin, development, philosophy and constitutional basis of evidence; constitutional and procedural considerations affecting
arrest, search and seizure; kinds of degrees of evidence and rules governing admissibility; judicial decisions interpreting individual rights and case studies viewed from a conceptual level. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect. CCS: Occupational Education. **Transferable:** CSU and private colleges.

**ADM J 4 Constitutional Criminal Procedure (3 units)**
Legal processes from pre-arrest, arrest through trial, sentencing and correctional procedures; a review of the history of case and common law; conceptual interpretations of law as reflected in court decisions; a study of case law methodology and case research as the decisions impact upon the procedures of the justice system. **Recommended:** Reading Level 1 and/or ADM J 2 and/or ADM J 3. **Hours:** (54) 3 lect. CCS: Occupational Education. **Transferable:** UC, CSU and private colleges.

**ADM J 5 Community Relations (3 units)**
The relationship of criminal justice agents and the community; casual and symptomatic aspects of community understanding; lack of cooperation and trust; study of behavioral causes; ways to develop and maintain amicable relationships. **Recommended:** Reading level 1. **Hours:** (54) 3 lect. Field trips required. CCS: Occupational Education. **Transferable:** UC, CSU and private colleges.

**ADM J 7 Patrol Procedures (3 units)**
Historical development of patrol philosophy; planning for field activities to include functions of patrol, traffic and other preliminary investigative duties of the field officer; techniques for planning patrol activities; handling complaints and requests for service; mechanics of field interviews, searches and arrests; the handling of traffic related problems; civil and domestic disturbances and other community crime incidents. **Recommended:** Reading Level 1 and/or ADM J 1. **Hours:** (54) 3 lect. CCS: Occupational Education. **Transferable:** CSU and private colleges.

**ADM J 8 Criminal Investigation (3 units)**
Fundamentals of criminal investigation; investigator skill requirements; modus operandi determination; the collection, identification and preservation of physical evidence; crime scene investigation; interviews and interrogations; sources of information; surveillance; field note-taking and report writing; courtroom preparation; and the investigation of specific crimes. **Recommended:** Reading Level 1 and/or ADM J 2. **Hours:** (54) 3 lect. CCS: Occupational Education. **Transferable:** CSU and private colleges.

**ADM J 9 Juvenile Procedures (3 units)**
Techniques of handling juvenile offenders and victims; prevention and repression of delinquency, diagnosis and referral; organization of community resources; juvenile law and juvenile court procedures. **Recommended:** Reading Level 1 and/or ADM J 1. **Hours:** (54) 3 lect. CCS: Occupational Education. **Transferable:** CSU and private colleges.

**ADM J 10 Organized Crime (3 units)**
Interrelations of organized crime to the community; impact of covert criminal activities upon the social structure; symptoms of organized crime activity, i.e., narcotics and white collar crime; political influences in the legal system; and management of crime control units. **Recommended:** Reading Level 1 and/or ADM J 1. **Hours:** (54) 3 lect. CCS: Occupational Education. **Transferable:** CSU and private colleges.

**ADM J 12 Legal and Scientific Aspects of Evidence (3 units)**
The collection, identification, preservation and transportation of physical evidence found at crime scenes. The use of photography, molds, casts and moulage masks to preserve evidence. Fingerprint examinations, classification and preservation of prints. Familiarization with polygraph examination. Identification of handwriting and typewriting. Firearms identification. Importance of hair, fibers, dust and blood as evidence. Importance of laboratory examination and discussion of available facilities. Rules of evidence and testimony at trial. **Recommended:** Reading
Level 1 and/or ADM J 3. Hours: (54) 3 lect and assigned field trips. CCS: Occupational Education. Transferable: CSU and private colleges.

ADM J 16 Supervision and Leadership (3 units)
Study of supervisory and leadership principles in law enforcement environment; supervisory roles, functions, and responsibilities; communicating, interviewing and counseling; employees’ complaints, grievances, and performance evaluations; personnel deployment, and training. Recommended: Reading Level 1 and/or ADM J 1. Hours: (54) 3 lect. CCS: Occupational Education. Transferable: CSU and private colleges.

ADM J 68 Peace Officers’ Basic Academy (P.O.S.T.) (10 units)
Content will furnish students with competencies set forth by P.O.S.T. to obtain a position as an entry-level peace officer. Covers introduction to law enforcement; administration of justice; criminal law; evidence and investigation; community-police relations; patrol procedures; traffic control; juvenile procedures; physical fitness; defensive tactics; firearms; first aid and CPR; vehicle operations; domestic violence; field training and evaluation; and other related basic law enforcement topics. Hours: (720) 22 lect, 18 lab. CCS: Occupational Education. Not Transferable: Associate Degree only.

CORRECTIONAL ADMINISTRATION
Credit limitations may apply. For specific information see a counselor.

COR A 1 Introduction to Correctional Administration (3 units)
A survey of the total “correctional cycle” and the relationships of its components. Included are: historical, theoretical and philosophical explanations of criminal behavior; statistics and research findings; employment opportunities; employment requirements. Recommended: Reading Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges.

COR A 2 Institutional Supervision and Treatment of the Offender (3 units)
A survey of the basic knowledge and skills required of “corrections” personnel including treatment and supervision of offenders: programs, procedures, legal issues, and research in the correctional setting. Recommended: Reading Level 1 and/or COR A 1 (may be taken concurrently). Hours: (54) 3 lect/disc. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges.

COR A 3 Fundamentals of Interviewing and Counseling (3 units)
A survey of the basic theories and techniques employed in interviewing and counseling by the correctional worker; traces the development of a meaningful relationship between client and caseworker; explores the various types of counseling employed with a correctional relationship, including group counseling. Recommended: Reading Level 1 and/or COR A 1 (may be taken concurrently). Hours: (54) 3 lect/disc. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges.

COR A 4 Fundamentals of Probation and Parole (3 units)
Theory and techniques of probation/parole supervision, including historical development with emphasis on recent programs, research, and development in the field. Recommended: Reading Level 1 and/or COR A 1 (may be taken concurrently). Hours: (54) 3 lect/disc. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges.

FIRE TECHNOLOGY
Credit limitations may apply. For specific information see a counselor.

FITC 1 Introduction to Fire Technology (3 units)
Introduction to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection
functions; basic fire chemistry and physics, introduction to fire protection systems; introduction to fire strategy and tactics.

**Recommended**: Reading Level 1. **Hours**: (54) 3 lect/disc/demo. Field trips required. 
**CCS**: Occupational Education. **Transferable**: CSU and private colleges.

**FI TC 2 Fundamentals of Personal Fire Safety and Emergency Action (3 units)**
Basic skills in assessing fire dangers, handling common fire situations in the home and/or industry, basic Cardio-Pulmonary Resuscitation and Standard First Aid.

**Recommended**: Reading Level 1. **Hours**: (54) 3 lect/disc/demo. Field trips required. 
**CCS**: Occupational Education. **Transferable**: CSU and private colleges.

**FI TC 3 Fundamentals of Fire Service Operations (3 units)**
Fundamentals of fire department organization, management, and resources, and the use of those resources to control various emergencies.

**Prerequisite**: FI TC 1 or equivalent. **Hours**: (54) 3 lect/disc/demo. Field trip required. **CCS**: Occupational Education. **Transferable**: CSU and private colleges.

**FI TC 4 Fundamentals of Fire Protection Chemistry (3 units)**
Fundamental information and knowledge of the physical and chemical characteristics of matter, fire hazardous materials, and basic extinguishment theory.

**Prerequisite**: FI TC 1 or equivalent. **Hours**: (54) 3 lect/disc/demo. Field trips required. **CCS**: Occupational Education. **Transferable**: CSU and private colleges.

**FI TC 5 Fundamentals of Fire Prevention (3 units)**
Provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationship of fire prevention with fire safety education and detection and suppression systems.

**Prerequisite**: FI TC 1 or equivalent. **Hours**: (54) 3 lect/disc/demo. Field trips required. **CCS**: Occupational Education. **Transferable**: CSU and private colleges.

**FI TC 6 Fundamentals of Fire Protection Systems and Equipment (3 units)**
Provides information relating to the features of design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection, and portable fire extinguishers.

**Prerequisite**: FI TC 1 or equivalent. **Hours**: (54) 3 lect/disc/demo. Field trips required. 
**CCS**: Occupational Education. **Transferable**: CSU and private colleges.

**FI TC 50a Fire Command 2A—Command Tactics at Major Fires (2 units)**
Concepts and methods for Chief Officers to understand complex fireground operations. Stresses the multiple company response and the efficient use of human and material resources in handling major structural fires. Accredited by the California Fire Service Training and Education System (C.F.S.T.E.S.) for Chief Officer certification.

**Prerequisite**: FI TC 51b or FI TC 51c. **Hours**: (40) 40 lect for 1 week. 
**CCS**: Occupational Education. Not **Transferable**: Associate Degree only.

**FI TC 50b Fire Command 2B—Scene Management at Major Incidents (2 units)**
Management techniques for Chief Officers to control major fire disasters. Techniques in developing and writing plans for fire disaster control and in managing local disasters. Accredited by the California Fire Service Training and Education System (C.F.S.T.E.S.) for Chief Officer certification.

**Prerequisite**: FI TC 50a or equivalent. **Hours**: (36) 36 lect/disc for 1 week. **CCS**: Occupational Education. Not **Transferable**: Associate Degree only.

**FI TC 50c Fire Command 2C—High Rise Fire Tactics (2 units)**
Command and control techniques used at the scene of an emergency by fire company officers. Emphasizes decision making, the act of commanding, personnel and organization structures and pre-planning for effective command performance particularly related to high-rise building emergencies. Includes a review of the Incident Command System instituted by the State of California Fire Services.

**Prerequisite**: FI TC 51b. **Hours**: (40)
27 lect, 13 lab for 1 week. CCS: Occupational Education. Not Transferable: Associate Degree only.

FI TC 50d Fire Command 2D — Management of Large-Scale Disasters (2 units)
Essential management techniques for Chief Officers needed to control major disasters. Developing and writing plans for disaster control and managing local disasters emphasized. Accredited by the California Fire Service Training and Education System (C.F.S.T.E.S.) for Chief Officer certification. Prerequisite: FI TC 50a or equivalent. Hours: (40) 40 lect for 1 week. CCS: Occupational Education. Not Transferable: Associate Degree only.

FI TC 50e Fire Command 2E - Wildland Fire Tactics (2 units)
California's wildland fire problem will be examined through wildland fire safety, weather effects, fuels, fire behavior, initial attack methods, using support equipment, including the use of topographic maps, strategy and tactics, and air attack operations. Accredited by the C.F.S.T.E.S, Chief Officer certification requirements. Prerequisite: FI TC 50a. Hours: (40) 36 lect, 4 lab for 1 week. CCS: Occupational Education. Not Transferable: Associate Degree only.

FI TC 50f Fire Management 2A—Organizational Development and Human Relations (2 units)
Provides sound management principles in preparation for Chief Officer. Includes internal and external influences; personal behavior of firefighters; managing human relations through group dynamics; and problem solving techniques. Accredited by the California Fire Service Training and Education System (C.F.S.T.E.S) for Chief Officer Certification. Prerequisite: FI TC 51a. Hours: (40) 36 lect, 4 lab for 1 week. CCS: Occupational Education. Not Transferable: Associate Degree only.

FI TC 50i Fire Command 1A (2 units)
Planning, operating and controlling the personnel functions necessary to become a company officer. Emphasizes training, counseling, managing the development of a firefighter, participating in departmental grievance procedures, managing discipline, morale, safety standards and diversity in the workplace. Prerequisite: FI TC 1 or equivalent. Hours: (40) 40 lect/disc for 1 week. CCS: Occupational Education. Not Transferable: Associate Degree only.

FI TC 50j Fire Management 2E — Staff Assignments and Line Functions (2 units)
Relationships with legislative bodies, organizational techniques, goal setting, planning-organizing and controlling, production measurement, evaluation of program effectiveness, civilians of public safety services, public safety employees contractual system, development of department programs and municipal fire insurance programs. Accredited by the C.F.S.T.E.S. for Chief Officer certification. Prerequisite: FI TC 50f. Hours: (40) 40 lect/disc for 1 week. CCS: Occupational Education. Not Transferable: Associate Degree only.

FI TC 51a Fire Management 1A (2 units)
Fundamental information and experience in command and control techniques at emergency locations. Emphasizes commanding, the authority or right to command, personnel, organization or area under a commander and the performance requirements for Fire Service Officers. Prerequisite: FI TC 1 or equivalent. Hours: (36) 36 lect/disc for 1 week. CCS: Occupational Education. Not Transferable: Associate Degree only.

FI TC 51b Fire Command 1A (2 units)
Long-range fire protection planning. Emphasizes program planning, strategic planning, forecasting, systems analysis, systems design, research, networking policy analysis and plans and reports. Accredited by the California Fire Service Training and Education System for Chief Officer certification. Prerequisite: FI TC 50f. Hours: (40) 36 lect, 4 lab for 1 week. CCS: Occupational Education. Not Transferable: Associate Degree only.

FI TC 51c Fire Command 1B (2 units)
Information and experience in command and control techniques used at the scene of hazardous material incidents. Emphasizes acts of commanding, the authority or right to command, the personnel organization or area...
under commander and the performance requirements for Fire Service Officers.  
Prerequisite: FI TC 51b. Hours: (36) 36 lect for 1 week. CCS: Occupational Education. Not Transferable: Associate Degree only.

FI TC 51d Fire Prevention 1A (2 units)  
Basic skills and knowledge necessary for Fire Prevention Officer 1. Legal responsibilities and fire hazard characteristics of various materials are included. Prerequisite: FI TC 5 or equivalent. Hours: (36) 36 lect for 1 week. CCS: Occupational Education. Not Transferable: Associate Degree only.

FI TC 51e Fire Prevention 1B (2 units)  
Basic fire prevention information for company officers so they may respond to a variety of fire prevention situations in a professional and effective manner. Meets NFPA 1031 Fire Inspection Professional Qualifications and California State Board of Fire Services Standards for Fire Prevention Officer 1b. Prerequisite: FI TC 51d. Hours: (36) 36 lect for 1 week. CCS: Occupational Education. Not Transferable: Associate Degree only.

FI TC 51f Fire Investigation 1A (2 units)  
Arson investigators will successfully carry out their responsibilities in arson detection and explosives investigation. Emphasizes essential elements of fire and explosives behaviors, types and use of laboratory services, and investigative responsibilities of an investigator at location of arson and explosives incidents. Meets P.O.S.T. certification requirements. Prerequisite: FI TC 62 or equivalent. Hours: (40) 40 lect for 1 week. CCS: Occupational Education. Not Transferable: Associate Degree only.

FI TC 51g Fire Instructor 1A (2 units)  
In-service training programs emphasizing occupational analysis, course outlines, concepts of learning, levels of instruction, behavioral objectives, lesson plans, the psychology of learning, evaluation of effectiveness and student teaching demonstrations are included. Prerequisite: FI TC 50. Hours: (40) 36 lect/4 lab for 1 week. CCS: Occupational Education. Not Transferable: Associate Degree only.

FI TC 51h Fire Instructor 1B (2 units)  
Continuation of FI TC 51g. Emphasizes instructors’ roles and responsibilities, course outline development, lesson plan review, instructional aid development, fundamentals of testing and measurements, and student teaching demonstrations. Prerequisite: FI TC 51g. Hours: (40) 36 lect/4 lab for 1 week. CCS: Occupational Education. Not Transferable: Associate Degree only.

FI TC 51i Fire Prevention 1C (2 units)  
Special hazards associated with flammable and combustible liquids and gases. Topics include fuel storage and handling, transportation of flammable gases and liquids. Meets NFPA 1031 Fire Inspection Professional Qualifications and California State Board of Fire Services Standards for Fire Prevention Officer 1. Prerequisites: FI TC 51d, FI TC 51e. Hours: (36) 36 lect/disc for 1 week. CCS: Occupational Education. Not Transferable: Associate Degree only.

FI TC 51j Fire Investigation 1B (2 units)  
Continuation of FI TC 51f adds topics of discussion including the juvenile fire setter, report writing, evidence collection and preservation procedures. Course meets P.O.S.T. certification requirements. Prerequisites: FI TC 51f or evaluation by instructor. Hours: (40) 40 lect/disc for 1 week. CCS: Occupational Education. Not Transferable: Associate Degree only.

FI TC 59 Fire Service Hydraulics (2 units)  
Assist fire fighters, pump operators and engineers in meeting the requirements for Fire Apparatus Driver/Operator certification. Content covers characteristics of water, friction loss, engine pressure, multiple lines, unequal layouts, pump and pumper and field equations. Recommended: MATH 50 or equivalent. Hours: (36) 3 lect per week for 12 weeks or 36 for 1 week. CCS: Occupational Education. Not Transferable: Associate Degree only.

FI TC 60 Driver/Operator Certification (3 units)  
Knowledge and skills in pump operations for fire engineers. Includes procedures on pumps, pumping principles, practical hydraulics, safe
apparatus operation en route and at scenes of emergencies, principles of reading and interpreting gauges, hydrant operations and drafting procedures. Recommended: FI TC 62. Hours: (129) 8 lect/8 lab for 8 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only.

FI TC 61 Fire Fighter Trainee Academy (3 units)
Basic educational and practical training essential for firefighter trainees. Emphasizes organizational procedures, forcible-entry tools, protective breathing apparatus, emergency medical care, inspection procedures, fire protection equipment and systems; wildland fire control; fire behavior; and petroleum fire procedures. Recommended: FI TC 1, 2, 3, 4, 5, 6 or equivalent. Hours: (320) 18 lect/22 lab for 8 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only.

FI TC 62 Fire Fighter I Academy (8 units)
Basic educational and practical training essential for Fire Fighter I. Advanced study of organizational procedures; forcible entry tools; protective breathing apparatus; emergency medical care; inspection procedures; fire protection equipment and systems; wildland fire control; fire behavior; and petroleum fire procedures. Recommended: FI TC 1, 2, 3, 4, 5, 6 or equivalent. Hours: (320) 18 lect/22 lab for 8 weeks. CCS: Occupational Education. Not Transferable: Associate Degree only.

FI TC 63 Fire Fighter II Academy (6 units)
Advanced academic and manipulative training essential for the achievement of job tasks specified for Fire Fighter II. Covers inspection and maintenance of equipment, fire protection surveys, fire prevention inspections, reports and plans and fire alarm features. Meets requirements for the California State Board of Fire Services, Fire Fighter II certification. Recommended: FI TC 62 or equivalent. Hours: (235) 235 lect/lab for a total of 40 weeks. Field trips required. CCS: Occupational Education. Not Transferable: Associate Degree only.

FI TC 64a Beginning Volunteer Firefighting (1 unit)
Basic knowledge and skills in firefighting practices for volunteers. Includes basic usage of forcible-entry tools, ventilation tools, rope usage, extinguisher usage, salvage and overhaul procedures, rescue procedures, resuscitation procedures and cardiopulmonary resuscitation procedures used by Fire Departments. Also includes areas of fire behavior and tactics; pumping procedures; hose evolutions, and ground ladder procedures. Hours: (18) 18 lect for 1 week. CCS: Occupational Education. Not Transferable: Not degree applicable.

FI TC 64b Advanced Volunteer Fire Fighter Certification (4.5 units)
Basic knowledge and skills in firefighting practices for volunteers. Includes fundamental usage of forcible-entry tools, ventilation procedures, rope usage, extinguisher practices, salvage and overhaul procedures, rescue procedures, cardio-pulmonary resuscitation techniques, fire behavior and tactics, fire streams, hose evolutions, and ladder procedures. Recommended: Evaluation by instructor. Hours: (144) 13.5 lect, 22.5 lab for 4 weeks. CCS: Occupational Education. Not Transferable: Not degree applicable.

FI TC 70a Hazardous Materials for First Responders (0.5 unit)
Mandated by law or called upon by necessity to assess, plan for, and initiate mitigation of incidents involving hazardous materials. Content covers the extent and nature of today’s hazardous materials problem, effects of weather, topography, and environmental conditions on the behavior of hazardous materials and the containment efforts these conditions require. Recommended: FI TC 1 or equivalent. Hours: (36) 18 lect/18 lab for 1 week. Repeat: 1. CCS: Occupational Education. Not Transferable: Not degree applicable.

FI TC 70b First Responder “Operational”—Decontamination (0.5 unit)
Provide members of a decontamination team at a hazardous materials incident with a primary understanding of the processes used in decontamination and the knowledge to
perform in a safe and competent manner to limit the spread of contamination. **Hours:** (9) 9 lect/demo for 1 week. CCS: Occupational Education. **Not Transferable:** Not degree applicable.

**FI TC 70c Hazardous Materials Incident Commander/Scene Manager (1 unit)**
Provide students with competencies needed to assume the role of an Incident Commander, as well as leadership skills for any other Command of Staff Incident Command System positions which are necessary during a hazardous materials incident. Content will also accentuate personnel safety and management. **Hours:** (36) 36 lect/demo for 1 week. CCS: Occupational Education. **Not Transferable:** Not degree applicable.

**FI TC 70d Hazardous Materials Tech/Spec 1A: Basic Chemistry (1 unit)**
Technical training in the physical and chemical terminology important to hazardous materials technicians/specialists and prevention officers, ability to determine properties of a chemical compound by name or formula. Includes study of important terms which describe properties, reactions with other materials, and the effects upon human beings, environment, and property. Applies to Hazardous Materials Technician/Specialist certification. **Hours:** (40) 18 lect, 22 lab for 1 week. CCS: Occupational Education. **Not Transferable:** Not degree applicable.

**FI TC 70e Hazardous Materials Tech/Spec 1B: Applied Chemistry (1 unit)**
A review of the basic terminology and theory of chemistry as it relates to hazardous materials incident management. Content includes: hazard and risk management; behavior and effect of toxicant and the major biological systems affected by toxicant; as well as using monitoring equipment to detect hazardous atmospheres and unknown solids and liquids. Applies to Hazardous Materials Technician/Specialist I certification. **Hours:** (40) 40 lect for 1 week. CCS: Occupational Education. **Not Transferable:** Not degree applicable.

**FI TC 70f Hazardous Materials Tech/Spec 1C: Incident Considerations (1 unit)**
Content covers hazardous materials data research; meteorological considerations that influence hazardous materials response activities; hazardous materials incidents command concepts associated with response activities; incident specific considerations that influence hazardous materials response activities; and legislative and regulatory policies that impact hazardous materials response activities. Applies to Hazardous Materials Technician/Specialist certification. **Hours:** (40) 40 lect for 1 week. CCS: Occupational Education. **Not Transferable:** Not degree applicable.

**FI TC 70g Hazardous Materials Tech/Spec 1D: Tactical Field Operations (1 unit)**
Information on confinement, including diking, dams and sorbent; awareness on plugging and patching; application of chemical protective clothing; preservation of evidence; and emergency medical considerations at a hazardous materials incident. Applies to Hazardous Materials Technician/Specialist certification. **Hours:** (40) 40 lect for 1 week. CCS: Occupational Education. **Not Transferable:** Not degree applicable.

**FI TC 70h Hazardous Materials Tech/Spec 1E: Special Mitigation Techniques (1 unit)**
Content covers medical monitoring guidelines; use of Level “A” chemical protective clothing; repair leaks on a rail tank car; procedures to simulate off-loading hydrocarbons from a rolled over DOT MC-306/406 aluminum tank truck; and practice as member of a haz mat team in simulated hazardous materials incidents. Applies to Hazardous Materials Technician/Specialist certification. **Hours:** (40) 40 lect/demo for 1 week. CCS: Occupational Education. **Not Transferable:** Not degree applicable.

**FI TC 70i Hazardous Materials Tech/Spec 1F: Advanced Field Operations (1 unit)**
Practical application of methods and procedures to mitigate leaking containers; transferring hazardous materials between containers; classifying known and unknown chemicals participating as a member of haz mat team in
simulated hazardous materials incidents; and exercising safe methods while operating at hazardous materials incidents. Applies to Hazardous Materials Technician/Specialist certification. **Hours:** (40) 40 lect/demo for 1 week. CCS: Occupational Education. Not Transferable: Not degree applicable.

**FI TC 71a Seasonal Firefighter Basic Training 1 (2 units)**
Basic concepts, techniques, skills and theories on fire suppression and control. Includes fire organization, wildland fire behavior, and fire safety. Satisfies one-half of required training standards. **Recommended:** Evaluation by instructor. **Hours:** (40) 9 lect/31 lab for 1 week. CCS: Occupational Education. Not Transferable: Not degree applicable.

**FI TC 71b Seasonal Firefighter Basic Training 2 (1.5 units)**
Manipulative and technical training in the identification and operation of fire tools and equipment. Includes fire-line construction practices, physical fitness and water-handling equipment. Satisfies one-half of required training standards. **Recommended:** Evaluation by instructor. **Hours:** (40) 9 lect, 31 lab for 1 week. **Repeat:** 2. CCS: Occupational Education. Not Transferable: Not degree applicable.

**FI TC 71e Wildland Fire Behavior and Control (0.5 unit)**
Basic watershed fire behavior. Environmental factors of fire behavior which start and spread watershed fires, and basic fire suppression methods applicable to breaking the fire triangle are emphasized. Meets National Interagency Incident Management System certification. **Hours:** (9) 9 lect/discussion for 1 week. CCS: Occupational Education. Not Transferable: Not degree applicable.

**FI TC 72abc Heavy Duty Rescue 1–2–3 (0.5–0.5–1 unit)**
Technical knowledge and practical skills necessary to successfully perform heavy duty rescue emergencies. Emphasizes methods and procedures for utilizing heavy duty rescue equipment, maintaining and storing of heavy duty rescue equipment, and recognizing basic types of building construction and their collapse characteristics resulting from various causes. Accredited by the California Fire Service Training and Education System. **Recommended:** FI TC 2, FI TC 72h or equivalent. **Hours:** (18-54) 72a: 18 for 0.5 unit; 72b: 36 for 0.5 unit; 72c: 54 for 1 unit lect/lab/ manipulative exercises. CCS: Occupational Education. Not Transferable: Not degree applicable.

**FI TC 72d Swift Water Rescue (1 unit)**
Basic techniques necessary to perform emergency rescue procedures involving swift water rivers. Emphasizes basic rescue knot practices, handling small rescue boats, emergency care, and controlling special hazards and problems in swift water emergencies. **Hours:** (30) 18 lect/12 lab for 1 week. CCS: Occupational Education. Not Transferable: Not degree applicable.

**FI TC 72e Advanced Swift Water Rescue (1 unit)**
Refinement of skills in manipulating and controlling activities at heavy swiftwater rescue scenes. Includes advanced river crossing techniques, cross river strokes management, swiftwater search techniques, and team organizational requirements. **Recommended:** FI TC 72d. **Hours:** (20) 20 lect/ manipulative exercises for 1 week. Field trips required. CCS: Occupational Education. Not Transferable: Not degree applicable.

**FI TC 72f Auto Extrication (0.5 unit)**
A systematic approach to vehicle rescue, and the use of mechanical and hand tools used in the extrication process. **Hours:** (18) 9 lect/9 lab for 1 week. Field trips required. CCS: Occupational Education. Not Transferable: Not degree applicable.

**FI TC 72g Aircraft Fire Protection and Rescue Procedures (1 unit)**
Information, methods and techniques necessary for providing crash fire rescue services at airports. Includes utilizing conventional fire apparatus and specialized crash fire rescue apparatus, crash fire rescue, extinguishing agents, various types of aircraft and operations at crash scenes. **Recommended:** FI TC 62. **Hours:** (36) 18 lect, 18 lab for 1 week. Field trips required.
FI TC 72h Emergency Medical Technician I — Non-Ambulance (4 units)
Techniques of emergency medical care presently considered within the responsibilities of the Emergency Medical Technician as well as all operational aspects. Emphasizes the development of student skills in recognizing symptoms of illness and injuries, and proper procedures of emergency care. Meets California State Department of Health and State Board of Fire Services criteria for EMT 1—NA Training. Recommended: FI TC 1 and/or FI TC 50a. Hours: (96) 80 lect/demo/practical exercises, plus 16 of non-ambulance field experience for 2 or 10 weeks. Field trips required. CCS: Occupational Education. Not Transferable: Not degree applicable.

FI TC 72i EMT 1 — Non-ambulance Recertification (1 unit)
Updates the skills of EMT 1 — Non-Ambulance Certificate holders as prescribed by law. Reviews and updates material in FI TC 72h — EMT 1 — Non-Ambulance. Recommended: Possession of a valid EMT 1 — NA Certificate which is current in Kern County. Hours: (28) 16 lect/12 lab for 1 week. CCS: Occupational Education. Not Transferable: Not degree applicable.

FI TC 74 Petroleum Fire Procedures (0.5 unit)
Practical experiences in various firefighting procedures involving flammable liquid fire emergencies, at/or near petroleum installations. Includes utilization of safety practices and extinguishment of various types of petroleum product fires. Certified by the California State Fire Service Training and Educational Program. Recommended: FI TC 50a or equivalent. Hours: (9) 3 lect/6 lab manipulative exercises for 1 day. Repeat: 1. CCS: Occupational Education. Not Transferable: Not degree applicable.

FI TC 75 Fire Fighting Techniques (0.5 unit)

FI TC 76 Fire Fighting Skills (3 units)
Seminars and drills to maintain skills. Includes updates in technology relating to organization, management and supervision, hose, ladders, tools, salvage, chemistry, extinguishers and agents, fire control, prevention, arson, crowd and traffic control, mutual aid, communications, fire and health safety, and emergency rescue techniques. Recommended: FI TC 62 or equivalent. Hours: (156) 2 lect/3 lab (13 hrs per month for 12 months). CCS: Occupational Education. Not Transferable: Not degree applicable.

FI TC 77 Advanced Structure Fire Training (0.5 unit)
Latest techniques in structure fire control. Specialized fire fighting techniques used to control residential, commercial and high-rise building fires. Recommended: FI TC 62. Hours: (9-36) 9-36 lect/lab. CCS: Occupational Education. Not Transferable: Not degree applicable.

FI TC 78 Advanced Officer Training (0.5 unit)
Contemporary techniques of supervision, concentrating on supervision techniques identified by local fire service agencies. Recommended: FI TC 62. Hours: (9-36) 9-36 lect/lab for 1 week. Repeat: 1. CCS: Occupational Education. Not Transferable: Not degree applicable.

FI TC 79 Instructor Orientation (0.5 unit)
Assists fire technology instructors with information needed to properly administer classroom activities. State certification system, administrative procedures, curriculum development and organization, publication format and style, and teaching strategies for accredited regional courses are emphasized. Recommended: FI TC 51g, FI TC 51h. Hours: (9-24) 9-24 lect/lab for one week or 1 day. CCS: Occupational Education. Not Transferable: Not degree applicable.

FI TC 81 Orientation to Fire Technology (0.5 unit)
Assists fire technology instructors with information needed to properly administer classroom activities. Includes information on the certification system, administrative procedures, curricu-
lum development and organization, publication format and style, and teaching strategies for accredited regional courses. Recommended: FI TC 51g, FI TC 51h. Hours: (9-24) 9-24 lect/disc for 1 week. CCS: Occupational Education. Not Transferable: Not degree applicable.

FI TC 83 Topics in Incident Command System Part I (0.5-1.5 units)
Twenty-six professional development workshops and seminars related to specific topics of the Incident Command System. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Interagency Incident Management System. Hours: (9-72) 9-72 lect/disc for up to 2 weeks. CCS: Occupational Education. Not Transferable: Not degree applicable. Note: Formerly FI TC 73.

FI TC 83a P-151 Wildfire Origin and Cause Determination (0.5 unit)
FI TC 83b S-205 Fire Operations in the Urban Interface (0.5 unit)
FI TC 83c S-217 Interagency Helicopter Training Guide (0.5 unit)
FI TC 83d I-244 Field Observer/Display Processor (0.5 unit)
FI TC 83e S-230 Single Resource Boss-Crew (0.5 unit)
FI TC 83f S-234 Firing Methods and Procedures (0.5 unit)
FI TC 83g I-254 Base/Camp Manager (0.5 unit)
FI TC 83h S-271 Helibase Manager (0.5 unit)
FI TC 83i S-270 Basic Air Operations (0.5 unit)
FI TC 83j S-290 Intermediate Wildland Fire Behavior (0.5 unit)
FI TC 83k S-300 Incident Commander, Multiple Resources Extended Attack (0.5 unit)
FI TC 83l S-336 Fire Suppression Tactics (0.5 unit)
FI TC 83m I-333 Strike Team Leader/Crew (0.5 unit)
FI TC 83n I-334 Strike Team Leader/Engine (0.5 unit)
FI TC 83o I-335 Strike Team Leader/Dozer (0.5 unit)
FI TC 83p I-339 Division/Group Supervisor (0.5 unit)
FI TC 83q I-346 Situation Unit Leader (0.5 unit)
FI TC 83r I-347 Demobilization Unit Leader (0.5 unit)
FI TC 83s I-348 Resources Unit Leader (0.5 unit)
FI TC 83t I-354 Facilities Unit Leader (0.5 unit)
FI TC 83u I-355 Ground Support Unit Leader (0.5 unit)
FI TC 83v I-356 Supply Unit Leader (0.5 unit)
FI TC 83w I-357 Food Unit Leader (0.5 unit)
FI TC 83x I-358 Communications Unit Leader (1.5 units)
FI TC 83y I-365 Time Unit Leader (0.5 unit)
FI TC 83z I-368 Procurement Unit Leader (0.5 unit)
FI TC 84 Topics in Incident Command System: Part II (0.5 unit)
Seventeen professional development workshops and seminars related to specific topics of the Incident Command System. Prepares personnel from municipal, county, state, and federal fire service agencies in meeting certification standards set forth by the National Interagency Incident Management System. Hours: (12-40)

FI TC 84a I-374 Helicopter Coordinator (0.5 unit)

FI TC 84b I-375 Air Support Supervisor (0.5 unit)

FI TC 84c I-376 Air Tanker Coordinator (0.5 unit)

FI TC 84d I-378 Air Attack Supervisor (0.5 unit)

FI TC 84e I-400 Incident Commander (0.5 unit)

FI TC 84f I-401 Safety Officer (0.5 unit)

FI TC 84g I-403 Information Officer (0.5 unit)

FI TC 84h I-420 Command and General Staff (0.5 unit)

FI TC 84i I-430 Operation Section Chief (0.5 unit)

FI TC 84j I-440 Planning Section Chief (0.5 unit)

FI TC 84k I-450 Logistics Section Chief (0.5 unit)

FI TC 84L I-460 Finance Section Chief (0.5 unit)

FI TC 84m I-470 Air Operations Branch Director (0.5 unit)

FI TC 84n S-370 Intermediate Air Operations (0.5 unit)

FI TC 84o S-390 Introduction to Wildland Fire Behavior Calculations (0.5 unit)

FI TC 84p S-490 Advanced Wildland Fire Behavior Calculations (0.5 unit)

FI TC 84q PMS-415 Introduction to Wildland Fire Suppression for Rural Fire Departments (0.5 unit)
Senior Studies
COURSE DESCRIPTIONS

SEN S 90 Topics in Senior Activity (0 units)
Topics may include travelogue-lectures, arts and crafts, physical fitness, oil painting, China painting and community chorus. Regular or emergent curriculum adapted or designed to meet the needs, interests and capabilities of senior citizens who seek instruction without college credit, examination or grades. For senior citizens and for other adults interested in senior programs. 

Hours: (18-108) 1-6 lect/demo or activity.
CCS: Community Education — Community & Civic Development. Not Transferable: Not degree applicable.
Social Science

Economics
History
Political Science
SOCIAL SCIENCE

This program is designed for students who wish to major in Economics, History, or Political Science for an Associate Degree and/or transfer to a four-year college or university. These majors provide training in the fundamental skills for careers in business, law, journalism, politics, international business, foreign service, government, and education.

For the Associate in Arts Degree, students must comply with the requirements as shown in the catalog under Graduation Requirements. Counselors/advisors will assist the student in planning for an Associate in Arts Degree.

For students wishing to transfer, the current catalog of the chosen college or university should be consulted for specific requirements. The college or university should be contacted to insure the transferability of the courses.

ASSOCIATE IN ARTS DEGREE PROGRAM
ECONOMICS

The major in economics is designed for students interested in preparing for advanced degrees in Economics, Business, Law and for those students concerned with the economic behavior of consumers, businesses, and governments. Economics majors have a wide variety of career opportunities in business, law, journalism, education, politics, finance and banking, government, public and private overseas service, and labor leadership. Many economics majors go on to pursue graduate study in a related professional area, such as law, business, or public administration.

Minimum units required in discipline: 18

Required Courses

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<tr>
<th>Course Number</th>
<th>Title</th>
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<tr>
<td>ECON 1</td>
<td>Principles of Economics—Micro</td>
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<tr>
<td>ECON 2</td>
<td>Principles of Economics—Macro</td>
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<td>MATH 2</td>
<td>Basic Functions and Calculus for</td>
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<td>PSYCH 6 or</td>
<td>Introduction to Behavioral Science</td>
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<td>CS 2</td>
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<td>PHIL 7</td>
<td>Introduction to Logic</td>
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<td>HIST 17b</td>
<td>History of the U.S. Since 1877</td>
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<tr>
<td>POL S 1</td>
<td>American Government</td>
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<td>General Psychology</td>
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</tr>
<tr>
<td>BUS A 1a</td>
<td>Financial Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS A 1b</td>
<td>Managerial Accounting</td>
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</tr>
<tr>
<td>SPCH 1</td>
<td>Speech Communication</td>
<td>3.0</td>
</tr>
</tbody>
</table>

HISTORY

The major in history is designed for students interested in gaining an understanding of our political, economic and social past. The major is an important part of the liberal arts program and can serve as preparation for graduate study in education, law, business, government and journalism. While there are few entry level jobs specifically for students with an Associate in Arts in History, many employers value the writing and thinking skills acquired by History majors.

Bakersfield College offers a wide variety of history courses in addition to those listed below. The student should select courses according to his/her area of specialization as well as the requirements of the college to which he/she plans to transfer. The student should also consult his/her counselor and the appropriate four-year college catalogs in determining an appropriate minor, foreign language requirements, and other requirements.

Minimum units required in discipline: 18

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 4ab</td>
<td>European Civilization</td>
<td>6.0</td>
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</table>

AND one of the following courses:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>HIST 17ab</td>
<td>History of the U.S.</td>
<td>6.0</td>
</tr>
<tr>
<td>HIST 20ab</td>
<td>African American History of the United States</td>
<td>6.0</td>
</tr>
<tr>
<td>HIST 30ab</td>
<td>Chicano History</td>
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(Continued next page)
AND any two of the following courses:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ECON 2</td>
<td>Principles of Economics—Macro</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST 18a</td>
<td>History of Early California</td>
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</tr>
<tr>
<td>HIST 18b</td>
<td>Modern California</td>
<td>3.0</td>
</tr>
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<td>HIST 36</td>
<td>History of Native Americans</td>
<td>3.0</td>
</tr>
<tr>
<td>GEOG 1</td>
<td>Introduction to Geography: Physical Elements</td>
<td>3.0</td>
</tr>
<tr>
<td>POL S 1</td>
<td>American Government</td>
<td>3.0</td>
</tr>
<tr>
<td>POL S 2</td>
<td>Comparative Government</td>
<td>3.0</td>
</tr>
<tr>
<td>POL S 3</td>
<td>International Politics</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC 1</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
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</table>

Recommended Courses

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<td>ART 30abcd</td>
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<tr>
<td>ENGL 2</td>
<td>Advanced Composition and Critical Thinking</td>
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<tr>
<td>PHIL 6a</td>
<td>Introduction to Philosophy</td>
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</tr>
<tr>
<td>PSYCH 1a</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANTH 2</td>
<td>Cultural Anthropology</td>
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</table>

POLITICAL SCIENCE

The major in Political Science is designed for students interested in gaining an understanding of the structure and functions of governments. The major is an important part of the liberal arts program and prepares students for further study and careers in education, law, business, government and journalism.

The student should select courses according to his/her area of specialization as well as the requirements of the college to which he/she plans to transfer. The student should also consult his/her counselor and the appropriate four-year college catalogs in determining an appropriate minor, foreign language requirements, and other requirements.

Minimum units required in discipline: 18

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>POL S 1</td>
<td>American Government</td>
<td>3.0</td>
</tr>
<tr>
<td>POL S 2</td>
<td>Comparative Government</td>
<td>3.0</td>
</tr>
<tr>
<td>POL S 3</td>
<td>International Politics</td>
<td>3.0</td>
</tr>
<tr>
<td>ECON 2</td>
<td>Principles of Economics — Macro</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST 17ab or</td>
<td>History of the U.S.</td>
<td>6.0</td>
</tr>
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<td>African American History of the United States</td>
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</tr>
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<td>HIST 30ab</td>
<td>Chicano History</td>
<td>6.0</td>
</tr>
</tbody>
</table>
SOCIAL SCIENCE

COURSE DESCRIPTIONS
The following abbreviations are commonly used in the course descriptions: lect lecture; lab laboratory; demo demonstration; Repeat repeatability (see policy on course repetition); CCS Course Classification System. Hours given in parentheses are total hours for the course. Hours lecture, lab, etc., are hours required per week usually. Prerequisites are expressed as minimum requirements. See page 47 for a complete explanation. (CSU) indicates transferable to California State Universities; (UC) indicates Transferable to University of California.

ECONOMICS

ECON 1 Principles of Economics—Micro (3 units)
Principles of economic analysis and decision making from the viewpoint of the individual consumer, worker, and firm. Emphasizes the price system allocation of resources and income, supply and demand analysis, the structure of American industry, and applications to current economic policy and problems. Recommended: Reading Level 1, MATH A. Hours: (54-54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN ECON 4)

ECON 2 Principles of Economics—Macro (3 units)
Principles of economic analysis and decision making from the viewpoint of the society. Emphasizes national income analysis, unemployment, inflation, economic growth, fiscal and monetary policies, international trade, and applications to current economic policy and problems. Recommended: Reading Level 1, MATH A. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN ECON 2)

HISTORY

Credit limitations may apply. For specific information see a counselor.

HIST 4a-4b European Civilization (3-3 units)
Survey of the growth of western civilization from its origin to the present. Focuses on the integration of political, social, and cultural developments. Recommended: Reading Level 1. Hours: (54-54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN 4a: HIST 2; 4b: HIST 4)

HIST 17a-17b History of the United States (3-3 units)
Survey of the political, economic and cultural history of the United States from earliest colonial times to the present. HIST 17a (to 1877) includes a study of the U.S. Constitution and Federal Government. HIST 17b (since 1877) includes a study of the state and local government of California. Satisfies the requirements in U.S. Constitution and American history and institutions. Recommended: Reading Level 1. HIST 17a is not a prerequisite for HIST 17b. Hours: (54-54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN 17a: HIST 8; 17b: HIST 10)

HIST 18a History of Early California (3 units)
The political, economic, social and cultural development of California from earliest times to 1870. Includes the Spanish, Mexican, and Early American periods. Satisfies the requirements in U.S. Constitution, American history and institutions. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

HIST 18b Modern California (3 units)
Historical environment of modern California. Emphasizes the political, economic, social and cultural development. Satisfies the requirements in U.S. Constitution, American history and institutions. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges.

HIST 20a-20b African American History of the United States (3-3 units)
Survey of the political, economic, and cultural history of the United States from earliest colonial times to the present with emphasis on the role and contributions of African Americans. HIST 20a (to 1896) includes a study of the U.S. Constitution and federal government. HIST 20b (since 1877) includes a study of the state and local government of California. Satisfies the
requirements in U.S. Constitution, and American history and institutions. HIST 20a is not a prerequisite for HIST 20b. Hours: (54-54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

HIST 30a Early Chicano History (3 units)
Survey of the history of the Mexican-American borderlands, from Pre-Columbian times until 1848. Includes the social, economic, and political evolution of the region with emphasis on the interrelationships between the histories of the United States and Mexico. Satisfies the requirements in U.S. Constitution, American history, and institutions. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: Not open to students with credit in CH ST 30a.

HIST 30b History of Chicanos in the Southwest (3 units)
Survey of the Chicanos with an emphasis on the development of California and the Southwest from 1848 to the present. Examines the aftermath of the U.S.-Mexican War, 1846-1848; the inter-relationship of Mexican and U.S. history between 1860 and 1910; the effects of the Mexican Revolution of 1910 on the 20th Century experience of Chicanos in the U.S.; and the California State Constitution. Satisfies the requirements in U.S. Constitution, American history, and institutions. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: Not open to students with credit in CH ST 30a.

HIST 36 History of Native Americans (3 units)
Survey of the origins, traditions, lifeway and belief systems of the various Native Americans. Emphasis is on the encounter with Anglo American expansion and on the impact of the governmental policies on this indigenous people. Recommended: Reading Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: Offered only occasionally.

HIST 38 Russia Since 1800 (3 units)
History of Russia since 1800. Emphasizes the continuity of Russian institutions and values of Tsarist times through the Bolshevik Revolution, the collapse of the USSR, and to the present. Included is a study of the functions and institutions of contemporary Russia. Recommended: Reading Level 1. Hours: (54) 3 lect/disc. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: Offered one semester, every other year.

HIST 51 History of Kern County (3 units)
A history of Kern County from earliest times to the present. Emphasis is on how Kern's geographic location has influenced our history during the Spanish, Mexican and American periods. Recommended: Reading Level 1. Hours: (54) 3 lect. Field trips required. CCS: Precollegiate — discipline specific. Not Transferable: Not degree applicable.

POLITICAL SCIENCE

POL S 1 American Government (3 units)
A study of American government with emphasis on the national government. Includes a comprehensive analysis of governmental structure, functions, principles and problems. Satisfies the requirements in U.S. Constitution, American history and institutions. Recommended: Reading Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN GOVT 2)

POL S 2 Comparative Government (3 units)
A comparative analysis of government structures of the principal nations of the industrial world: United Kingdom, France, Federal Republic of Germany, U.S.S.R., and Japan. Additional emphasis on certain nations in sensitive geographic areas or countries whose size and developing economies make them important, including the People's Republic of China, Brazil, Mexico, Israel, Egypt and India. Recommended: Reading Level 1, HIST 17a, HIST 17b, or POL S 1 Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

POL S 3 International Politics (3 units)
Surveys the dynamics and ideologies of present-day international politics and rivalries. Historical depth evolution of the
SOCIAL SCIENCE

techniques and arts of diplomacy, and the causes of war. **Recommended:** HIST 17a and HIST 17b or POL S 1. **Hours:** (54) 3 lect. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**POL S 5 Current Issues in American Government** (1–2 units, limit 6 units)
Study of special current events, such as elections, impeachment proceedings, or Constitutional revisions. Offered only as such events occur. **Recommended:** Reading Level 1 or POL S 1 or evaluation by instructor. **Hours:** (18–36) 2 lect. **Repeat:** 3 or until a limit of 6 units is reached. CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**POL S 16 Vital Political Problems** (3 units)
Examination of major political problems challenging the United States today. Emphasizes class discussion and individual analysis of controversial topics involving political policy in the context of the study of political science. **Hours:** (54) 3 lect. CCS: Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

**POL S 42 Principles of Leadership** (2 units)
Student body leadership and responsibility in school affairs. Specific instruction in the principles and administration of: the co-curricular activity program; ASBC finances, including budgetary procedures; parliamentary procedures and group dynamics. One hour each week is devoted to a student body business meeting and one hour each week to instruction. Student officers serving their first term are required by Associated Student Body By-Laws to take the course. **Hours:** (36) 2 lect. **Repeat:** 3. CCS: Liberal Arts & Sciences. **Transferable:** CSU and private colleges.
Student Development

Formerly Counseling & General Studies
There are no degree or certificate programs in Counseling at the two-year college level. The courses described below are taught by counselors to help students decide on a career and to meet their educational goals.

**COURSE DESCRIPTIONS**
The following abbreviations are commonly used in the course descriptions: lect lecture; lab laboratory; demo demonstration; Repeat repeatability (see policy on course repetition); CCS Course Classification System.

Hours given in parentheses are total hours for the course. Hours lecture, lab, etc., are hours required per week usually. Prerequisites are expressed as minimum requirements. See page 47 for a complete explanation. (CSU) indicates transferable to California State Universities; (UC) indicates Transferable to University of California.

**STUDENT DEVELOPMENT**

**ST DV 1 Educational Planning (0.5 unit)**
Designed to assist students in understanding college requirements and to help them in making educational plans. Required for both the A.A. and A.S. degrees. Satisfies the 0.5 unit educational planning requirement for graduation from Bakersfield College. **Recommended:** Reading Level 1. **Hours:** (9) 9 lect. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges. Elective credit only. **Note:** Formerly COUNS 1.

**ST DV 2 Career Decision Making and Educational Planning (1.5 units)**
An introduction to career search and strategies. Provides an overview of the career decision-making process including goal setting, decision making and researching the job market. Educational plans, college policies and procedures, as well as the transfer process and Associate Degree and certificate requirements are covered. Satisfies the 0.5 unit educational planning requirement for graduation from Bakersfield College. **Recommended:** Reading Level 1. **Hours:** (27) 3 lect/disc for 9 weeks. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges. Elective credit only. **Note:** Formerly COUNS 2/GN ST 2.

**ST DV 4 Introduction to College for International Students (1 unit)**
Designed to give international students a practical training in studying effectively, the techniques for survival within the college setting, and making their educational plan for college studies. Satisfies 0.5 unit educational planning requirement for graduation from Bakersfield College. **Recommended:** Reading Level 1 or evaluation by instructor. **Hours:** (18) 2 lect/disc for 9 weeks. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges. Elective credit only. **Note:** Formerly COUNS 4.

**ST DV 11 Tools for College Survival (2 units)**
Increases students’ probability of success in college by helping students obtain skills necessary to reach their educational objective. Provides the opportunity for students to learn and adapt skills proven to promote success in college, including study skills and personal life skills. Also includes graduation requirements as well as admission and transfer requirements. Satisfies 0.5 unit educational planning requirement for graduation from Bakersfield College. **Recommended:** Reading Level 1. **Hours:** (40.5) 3 lect for 13.5 weeks. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges. Elective credit only. **Note:** Formerly COUNS11/GN ST 11. Not open to students with credit in ESL 11.

**ST DV 13a OPTIONS: Discovering Yourself and Your Career (3 units)**
Opportunity Program Training Individuals for Occupational and Non-traditional career Success offers an introduction to the world of work and higher education. Through vocational and personality testing, values clarification and goal-setting strategies, the student is guided through the process of career decision-making. Includes an introduction to the college and educational planning. Satisfies the 0.5 unit educational planning requirement for graduation from Bakersfield College. **Recommended:** Reading Level 1. **Hours:** (54) 3 lect/disc. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges. Elective credit only. **Note:** Formerly COUNS 13a/GN ST 13a.
ST DV 14 OPTIONS: The Career Search
(1 unit)
OPTIONS: Opportunity Program Training
Individuals for Occupational and Non-traditional
career Success offers an introduction to career
search strategies. Students will be given a variety
of skills, interests, personality and vocational
tests. Individual needs and values will be
discussed. Students will learn techniques for
goal setting, decision making and researching
the job market. Development of resume writing
and interviewing skills will be emphasized. 
Recommended: Reading Level 1. Hours: (18)
1 lect. CCS: Liberal Arts & Sciences. Transfer­
able: CSU and private colleges. Note: Formerly COUNS 14/GN ST 14.

ST DV 28 Women in the World (3 units)
Study of woman’s role in the different parts
of the world. Examines past activities and
contributions of women in different societies.
Attempts to gain understanding of changes
and impact upon women’s roles due to their
cultural backgrounds. Societies include
Israel, India, the United States, Europe,
Africa and Latin America. Recommended:
Reading Level 1, English Level 3. Hours:
(54) 3 lect/disc. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and
private colleges. Note: Not open to students with credit in SOC 28. Formerly GN ST 28.

ST DV 38 Building Partnerships Between
Men and Women (3 units)
Introductory course focusing on identifying and
overcoming the barriers to effective male/
female relationships. Topics covered include
understanding the male/female cultures;
overcoming the two barriers; logical outcomes
of the barriers; conflict management. Recom­
manded: Reading Level 1; English Level 1. 
Hours: (54) 3 lect/disc. CCS: Liberal Arts &
Sciences. Transferable: CSU and private colleges. Note: Not open to students with credit in PSYCH 38. Formerly COUNS 38.

ST DV 51 Job Search Strategies (1 unit)
Assisting students with job search skills.
Guidance through the job search process
including strategies for skills identification,
marketing techniques, resume writing and
cover letters, job search strategies, and
interviewing skills. Hours: (18) 2 lect/disc
for 9 weeks. CCS: Liberal Arts & Sciences. 
Not Transferable: Associate Degree only.

ST DV 53 Single Parent Preparatory
Education (3 units)
Prepares single parents for a return to
education. Emphasis is on improving self­
estee, communication and basic and
learning skills. Recommended: English
Level 4 or evaluation by instructor. Hours:
(135) 9 lect/disc for 15 weeks. CCS:
Precollegiate — basic skills. Not Transferable: Not degree applicable. Note: Formerly GN ST 53.

ST DV 74m A Positive Attitude Towards
Math (0.5 units)
Designed for students who have an inhibiting
fear which precludes their success in the study
of mathematics, this course explores attitudes
towards mathematics through journal writing
and class discussion; teaches problem-solving
approaches using both the right and left brain,
and assists students in reducing their level of
math anxiety. Hours: (9) 1 lect for 9 weeks. 
CCS: Precollegiate — basic skills. Not
Transferable: Not degree applicable.

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Theatre Arts & Dance
Theatre Arts is a component of both the liberal arts and general education programs. Students who major in the various specialties of the dramatic arts often pursue careers in professional theatre, teaching, or activities in community theatre. Many other students have used training in theatre arts toward attaining confidence and self-assurance in professions such as law, the ministry and business.

CERTIFICATE OF ACHIEVEMENT
TECHNICAL THEATRE CERTIFICATE
Minimum units required in discipline: 35

Required Courses

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<thead>
<tr>
<th>Course Number</th>
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<tr>
<td>THEAT 1</td>
<td>Introduction to Acting</td>
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<tr>
<td>THEAT 28</td>
<td>Technical Theatre Laboratory</td>
<td>12.0</td>
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<tr>
<td>THEAT 249</td>
<td>Cooperative Work Experience Education</td>
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<tr>
<td>THEAT 4 or</td>
<td>Introduction to Stagecraft</td>
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</tr>
<tr>
<td>THEAT 5 or</td>
<td>Introduction to Scene Design</td>
<td>3.0</td>
</tr>
<tr>
<td>THEAT 6 or</td>
<td>Introduction to Stage Make-Up</td>
<td>3.0</td>
</tr>
<tr>
<td>THEAT 9 or</td>
<td>Introduction to Lighting and Sound Design</td>
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</tr>
<tr>
<td>THEAT 10</td>
<td>Introduction to Stage Management and Technical Direction</td>
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<tr>
<td>SP ST 201</td>
<td>Special Projects and Studies</td>
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<td>Approved Electives</td>
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ASSOCIATE IN ARTS DEGREE PROGRAM
Students must comply with the requirements as shown in the catalog under graduation requirements. Counselors/Advisors will assist the student in planning for an Associate Degree.

Minimum units required in discipline: 18

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>THEAT 2ab</td>
<td>Elements of Acting</td>
<td>6.0</td>
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<tr>
<td>THEAT 3a</td>
<td>Applied Acting Problems</td>
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<tr>
<td>THEAT 3b</td>
<td>Applied Acting Problems</td>
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<tr>
<td>THEAT 4</td>
<td>Introduction to Stagecraft</td>
<td>2.0</td>
</tr>
<tr>
<td>THEAT 6</td>
<td>Introduction to Stage Make-up</td>
<td>3.0</td>
</tr>
<tr>
<td>THEAT 27 or</td>
<td>Acting Theatre Laboratory</td>
<td>1-3.0</td>
</tr>
<tr>
<td>THEAT 28</td>
<td>Technical Theatre Laboratory</td>
<td>1-3.0</td>
</tr>
</tbody>
</table>

Note: Theatre majors should enroll for at least one unit of THEAT 27 or THEAT 28 per semester.
THEATRE ARTS AND DANCE

COURSE DESCRIPTIONS
The following abbreviations are commonly used in the course descriptions: lect lecture; lab laboratory; demo demonstration; Repeat repeatability (see policy on course repetition); CCS Course Classification System. Hours given in parentheses are total hours for the course. Hours lecture, lab, etc., are hours required per week usually. Prerequisites are expressed as minimum requirements. See page 47 for a complete explanation. (CSU) indicates transferable to California State Universities; (UC) indicates Transferable to University of California.

DANCE
Credit limitations may apply. For specific information see a counselor.

DANCE 6bLb Beginning Ballet (1 unit)
Coeducational beginning ballet course, includes proper warm-up exercise, technical skills and terminology. Hours: (36) 2 participation. Repeat: 3. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: Not open to students with credit in PE 6bLb.

DANCE 6jd Jazz Dance (1 unit)
Fundamental jazz dance techniques and fundamentals and terminology of ballet as they relate to jazz dance including warm-up exercises for the preparation of the human body as an instrument for dance. Different styles and rhythms of jazz dance and music for jazz dance will be introduced. Hours: (36) 2 lab. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: Not open to students with credit in PE 6jd.

DANCE 6md Modern Dance (1 unit)
A coeducational course in which the student will learn warm-ups, techniques, experience with movement improvisation and develop a knowledge of the elements of dance composition. Hours: (36) 2 participation. Repeat: 3. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: Not open to students with credit in PE 6md.

THEATRE ARTS
Credit limitations may apply. For specific information see a counselor.

THEAT 1 Introduction to Acting (3 units)
Designed for non-majors. Emphasizes mastery of self as the key to creative process of communication and performance through improvisation, theatre games, concentration, pantomime, etc. Recommended for those interested in performing arts, personal arts or in personal development. Recommended: Reading Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN DRAM 8 is equivalent to THEAT 2a)

THEAT 2ab Elements of Acting (3-3 units)
Provides understanding of self as creator and medium of acting. Develops fundamental knowledge of such elements of acting as pantomime, vocalization, improvisation, relaxation-concentration, sense memory, etc. Recommended: Reading Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN DRAM 8 is equivalent to THEAT 2a)

THEAT 3a-3b-3c-3d Applied Acting Problems (2-2-2-2 units)
A study and application of the various theories of acting, utilizing a variety of improvisational and scripted exercises and performance pieces. Recommended: Reading Level 1. Hours: (72) 1 lect, 3 lab. Repeat: 3. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

THEAT 4 Introduction to Stagecraft (3 units)
Basic set construction, scenic paint, scenic painting, stage properties, 3-D scenery, special effects, lighting and sound. Recommended: Concurrent enrollment in 1 unit of THEAT 28, Reading Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN DRAM 12)

THEAT 5 Introduction to Scene Design (3 units)
General knowledge of set design functions and types of scene design. Emphasis is on
THEATRE ARTS AND DANCE

drafting and painting equipment, techniques, elements of design, drafting a floorplan and model making. Recommended: Concurrent enrollment in 1 unit of THEAT 28, Reading Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

THEAT 6 Introduction to Stage Make-up (3 units)
Covers character analysis, facial anatomy, old age make-up, 3-dimensional make-up, rubber prosthesis, beards and mustaches, and non-realistic make-up. Recommended: Reading Level 1. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. (CAN DRAM 14)

THEAT 9 Introduction to Lighting and Sound Design (3 units)
Fundamentals of designing lighting and sound for the theatre, emphasizing complete projects developed during the course. Included are purposes of lighting/sound; research techniques; methods of design, materials and equipment—characteristics and applications; plot drafting, developing a personal style, and typical industry employment opportunities. Recommended: THEAT 4 or evaluation by instructor, concurrent enrollment in 1 unit of THEAT 28. Hours: (54) 3 lect/demo. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

THEAT 10 Introduction to Stage Management and Technical Direction (3 units)
Basic skills of stage management and technical direction. Format includes participation in a workshop-style presentation of scenes and/or a fully mounted production as part of class activities. Skills emphasized include stage managers' duties during production planning, construction, load-in; technical rehearsals and performances, load-out; and employment in industry. Recommended: THEAT 1 or THEAT 4 or evaluation by instructor, concurrent enrollment in 1 unit of THEAT 28. Hours: (54) 3 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

THEAT 12a Introduction to Shakespeare (3 units)

THEAT 15 Stage Movement (3 units)
The use of the body as an expressive instrument. Emphasizes discovering and freeing body tension, correcting body alignment, use of space, communicating with the body and period stylized movement. Includes training in the use of weapons and hand-to-hand combat on stage. Prerequisites: THEAT 1 or evaluation by instructor. Recommended: Reading Level 1. Hours: (54) 3 lect/lab. Repeat: 1. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

THEAT 27 Acting Theatre Laboratory (1–3 units, limit 8 units)
The rehearsal and production of both main stage and experimental theatre dramas. Theatre activity for the beginner or expert in acting, publicity, or theatre management. Prerequisites: THEAT 1 or equivalent. Recommended: Reading Level 1. Hours: (60-180) 60 hours per unit. Repeat: 3 or until a limit of 8 units is reached. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges.

THEAT 28 Technical Theatre Laboratory (1–3 units, limit 12 units)
Participation in set construction, lighting, make-up, costume, properties, or any other technical area of theatrical productions. Recommended: Reading Level 1. Hours: (54-162) 54 hours per unit. Repeat: 3 or until a limit of 12 units is reached. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges.

THEAT 30 Film Focus (1 unit)
Designed to focus the awareness and appreciation of the student upon a single type of film, i.e. work of a particular actor.
THEATRE ARTS AND DANCE

director, theme, etc. Course will concentrate upon an in-depth examination of a very limited area of the art of film. Recommended: Reading Level 1. Hours: (18) 3 lect. Repeat: 3. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

THEAT 31 Introduction to Film Studies (3 units)
Designed to heighten the awareness and appreciation of the student to an audience's relationship and responsibility to the cinema from its beginning to the present. The critical viewing and discussion of film will provide the basis for the development of aesthetic appreciation. Recommended: Reading Level 1. Hours: (54) 3 lect/disc. Repeat: 1. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

THEAT 32 Contemporary Film Studies (3 units)
Designed to acquaint the student with the audience's relationship and responsibility to cinema. By viewing and discussing the films of a particular genre, such as the western or the foreign film, and then reading and writing about them, the student will develop an aesthetic appreciation of movies and related art forms. Recommended: Reading Level 1. Hours: (54) 3 lect. Repeat: 1. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges.

THEAT 35 Introduction to Theatre (1 unit)
The study of and exposure to live theatrical performances will increase the appreciation and enjoyment of this often neglected area of the arts and humanities. Recommended: Reading Level 1. Hours: (18) 3 lect for 6 weeks. Repeat: 3. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges.

THEAT 227 Acting Theatre Laboratory (1-3 units, limit 8 units)
The rehearsal and production of both main stage and experimental theatre dramas. Theatre activity for the beginning or expert in acting, publicity, or theatre management. Prerequisite: THEAT 1 or equivalent.

THEAT 227s Acting Theatre Laboratory (1-3 units, limit 8 units)
Rehearsal and production of both main stage and experimental theatre dramas. Theatre activity for the beginning or expert in acting, publicity, or theatre management. Recommended: Reading Level 1. Hours: (30-90) 30 lab per unit. Open entry/open exit. Repeat: 3 or until a limit of 8 units is reached. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges. Note: Offered in summer school only.

THEAT 228 Technical Theatre Laboratory (1-3 units, limit 8 units)
Participation in set construction, lighting, make-up, costume, properties, or any other technical area of production. Recommended: Reading Level 1. Hours: (60-180) 60 per unit. Open entry/open exit. Repeat: 3 or until a limit of 8 units is reached. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges.

THEAT 249 Cooperative Work Experience Education (1-4 units, limit 16 units)
See W EXP 249 description.
Work Experience
Cooperative Work Experience Education

Bakersfield College, in cooperation with business, industry, government and the community, makes it possible for students to earn elective credit toward a degree and/or certificate through employment experience. The college may grant credit to a student in an amount not to exceed four units per semester for part-time occupational work experience or three units per semester for general work experience under the Parallel Plan. Under the Alternate Plan, the college may grant to a student an amount of eight units per semester for full-time employment. Full-time and part-time summer work experience can also qualify for credit. Work experience may count toward graduation in disciplines. Contact the chair of the appropriate department for further information.

Types of Cooperative Work Experience Education

A. General Work Experience Education (W EXP 250) is supervised employment of students. It is intended to assist them in acquiring desirable work habits, career awareness and positive job attitudes. The jobs held by students need not be related to their occupational goals or college program. Contact the Director of Cooperative Work Experience Education or a counselor for more information.

B. An Internship or Occupational Work Experience Education (W EXP 248 and 249) is the extension of classroom occupational learning opportunities and career awareness into employment related to the student’s major or occupational goal. Work Experience credit may be transferable to many colleges and universities. Contact the Director of Cooperative Work Experience Education or a counselor for specific information.

COURSE DESCRIPTIONS

The following abbreviations are commonly used in the course descriptions: lect lecture; lab laboratory; demo demonstration; Repeat repeatability (see policy on course repetition); CCS Course Classification System. Hours given in parentheses are total hours for the course. Hours lecture, lab, etc., are hours required per week usually. Prerequisites are expressed as minimum requirements. See page 47 for a complete explanation. (CSU) indicates transferable to California State Universities; (UC) indicates Transferable to University of California.

WORK EXPERIENCE

Credit limitations may apply. For specific information see a counselor.

W EXP 248 Cooperative Work Experience Education (1–8 units, limit 16 units)

College credit for learning experiences obtained on the job in accordance with a training plan developed cooperatively between the employer, college, and student. Major or occupational goal must be job related. Prerequisites: Declared major or occupational goal and evaluation by Work Experience Director of student major, qualifications and objectives. Hours: 75 hours per semester, per credit unit at a paid job, or 60 hours per semester credit unit at a non-paid job. Minimum of 5 hours per week. Repeat: 3. Limit of 16 units. CCS: Occupational Education. Transferable: CSU and private colleges.

W EXP 249 Cooperative Work Experience Education (1–4 units, limit 16 units)

College credit for learning experiences obtained on the job in accordance with a training plan developed cooperatively between the employer, college and student. Prerequisites: Declared major or occupational goal, concurrent enrollment in seven or more units (including CWEE units, except summer school) and evaluation by Work Experience Director of student major, qualifications and objectives. Hours: 75 hours per semester, per credit unit at a paid job, or 60 hours per semester credit unit at a

W EXP 250 General Work Experience Education (1–3 units, limit 6 units)
Offers students an opportunity to combine a planned occupational program with progressive on-the-job experience (OJT) and practical learning experiences in the world of work. Prerequisites: (a) pursue a planned work experience program, (b) concurrent enrollment in seven or more units (including GWE units) except summer school, (c) minimum 2.00 GPA and (d) evaluation by instructor. Hours: (75 hours per semester credit per credit unit at a paid job; or 60 hours per semester credit unit at a non-paid job 5 or more hours per week.) Repeat: 3 or until a limit of 6 units is reached. CCS: Occupational Education. Not Transferable: Associate Degree only.
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Wilson, Harry S.
Professor, Photography
B.F.A., M.F.A., San Francisco Art Institute

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Wright, Richard L.
President
B.A., M.A., Kent State University; Ph.D., University of Northern Colorado

Yale, Thomas H.
Professor, Life Science
B.A., M.A., California State University, San Jose
ADJUNCT FACULTY
Instructors who have taught for Bakersfield College at least two years.

Adame, Ralph
Interior Design

Aguilar, Anthony
Music

Aiello-Wise, Kathy Ann
Child Development

Ainsley, Richard W.
Computer Information Systems

Allen, Muriel M.
English

Amin, Karimeh
Sociology

Anderson, Victor D.
Architecture

Anhalt, Mary Jo
Academic Development

Annis, Stephen
Banking

Armendariz, Bonnie L.
Computer Information Systems

Arthur, David
Philosophy

Barrett, Jerome C.
Speech

Barton, Jill T.
Interior Design

Barton, Robert A.
Speech

Bates, Jeannette P.
Academic Development

Beck, Carol Sue
Academic Development

Bellows, Jack
Apprenticeship

Benoit, Joseph
Business

Bingham, Gary D.
Correctional Administration

Blankenship, Jean E.
Senior Studies

Brackley, Joseph E.
English

Brothers, Sarah E.
Business Management

Brown, Janice
Small Business

Brown, Lorraine
Business Management

Brown, Orval
Political Science

Brudvig, Cheryl
Real Estate

Bryson, Jeff
Apprenticeship

Bsharah, Steve W.
History

Buechler, Mary Ann
Academic Development

Burdick, Max
Allied Health

Caminiti, John A.
Health Education

Canady, George
Auto

Cantwell, Richard
Geology

Carlson, Kamala
Academic Development

Casagrande, Richard
Environmental Hazardous Materials

Castro De LaRosa, Guadalupe
Chicano Studies, History

Cater, Janet E.
Mathematics

Cater, Timothy A.
Mathematics

Cazaores, Ralph B.
Sociology

Cervantes, Ernest T.
Music

Chiou, Yoehmel
Computer Information Systems

Cimental, Virginia
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Clark, Donald J.
Apprenticeship
Clayton, Morgan E.
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Close, Caroline G.
English, English as a Second Language

Collett, Stephen F.
Astronomy

Collier, Robert
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Colvin, Mildred
Academic Development

Cooper, Wilson
Environmental Hazardous Materials

Corona, Justo
Industrial Drawing

Cox, Edward J.
Apprenticeship

Crabtree, Gary Thomas
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Crawford, Denise Ann
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Crow, Cheryl Ann
Business

Cummins, Steven C.
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Dahl, Jennifer L.
Coach, Women's Basketball

Daniels, Mary
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Darensbourgh, Kenneth
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Davies, Merrily T.
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Dean, William
Apprenticeship

Deltoro, Paul
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Desmond, Joan
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Douglas, W. Scott
Assistant Coach, Football

Duncan, William H.
Computer Information Systems

Dunlap, Janice L.
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Embry, Stanley
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Engel, Jimmie D.
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Fassio, Kristi
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Fernandez, Larry Jr.
Apprenticeship

Ferullo, Concetta L.
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Filkins, Mylon E.
Animal Science

Finnell, Raymond A.
Theater

Fleenor, Carol Ann
English

Foy, Jeanna
Ornamental Horticulture

Frailey, Philip M.
Accounting

Freaney, Brenda
English

Gage, Stephen
Fire Technology

Gienger, William
Social Science

Goenawein, Allen D.
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Gordon, Clifton B.
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Grage, Stephanie
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Grass, Richard R.
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Grossberg, Robert
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Guajardo, Luis
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Haas, Karl
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Hackman, Vida B.
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Hafenfeld, Richard E.
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Hagenston, Kim A.
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Hailey, LeCostal, Jr.
History, Fire Technology
Hawkes, Robert  
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Head, Rebecca Ann  
Mathematics

Henderson, Thomas J.  
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Henket, Frans  
Water Technology

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Herring, Melissa  
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Hewes, Doris A.  
Psychology

Hewes, Timothy  
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Hicks, Junko  
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Holland, Carole Ann  
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Hollister, Dana Ruth  
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Howze, Gerald  
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Hunter, Harlan G.  
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Jackson, Peter D.  
Apprenticeship

Jackson, Robert  
Economics

Jennings, Raymond  
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Jones, Russell D.  
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Killingsworth, Barbara  
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Kimball, Dan A.  
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Klinoff, Robert W.  
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Knudsen, William  
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Kropp, Charles  
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Lang, Robert  
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Labrum, Ralph  
Forestry

Launer, Michael L.  
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Laurence, Carolyn  
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Lechtreck, Martha  
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Lewy, Robert M.  
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Litterell, Ellery  
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Loftis, Ed  
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Lund, Elmore H.
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MacMillan, Kenneth C.
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Magner, Nancy E.
Art

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Health Science

McCowan, Stacey
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McCrairn, Randall
English

McMahon, Jeffrey
English

McMurtry, Dana
English

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Apprenticeship 60

Mettler, Dorrine
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Mickols, Robert A.
History

Miller, Debra K.
History

Moncier, John R.
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Moore, Vicki A.
Music

Morales, Jesus
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Moretti, Kathy L.
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Morrison, Brian E.
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Spanish

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Oldershaw, Michael
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Oller, Paul
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Padgett, Donald
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Paggi, Robin
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Palinsky, David W.
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Parks, Cristen
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Peavler, Jamie V.
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Picard, Joyce A.
Senior Studies

Porter, Gordon
Counseling

Pott, Thomas J.
Computer Information Systems

Rabe, Thomas
Computer Information Systems
<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
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</thead>
<tbody>
<tr>
<td>Rahman, Shorhreh Y.</td>
<td>Psychology, Counseling</td>
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<tr>
<td>Rains, Bryan N.</td>
<td>Apprenticeship</td>
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<tr>
<td>Ramos, Rufino “Frank”</td>
<td>Fire Technology</td>
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<td>Rathjen, Charlotte</td>
<td>Academic Development</td>
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<td>Reep, Mitchell</td>
<td>Philosophy</td>
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<td>Rees, Hazel M.</td>
<td>English</td>
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<td>Regier, Jonathan</td>
<td>Philosophy</td>
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<td>English</td>
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<td>Rice, Jeanne L.</td>
<td>Emergency Medical Training</td>
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<td>Women’s Tennis Coach</td>
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<td>Richardson, John Nelson</td>
<td>Art</td>
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<td>Sociology</td>
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<td>Roberts, Floyd L.</td>
<td>Apprenticeship</td>
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<td>Robles, Louis H.</td>
<td>Industrial Drawing</td>
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<td>Fashion</td>
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<td>Speech</td>
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<td>History, Chicano Studies</td>
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<td>Simmons, Brian P.</td>
<td>Child Development</td>
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<td>Slaybaugh, Robert A.</td>
<td>Physical Education</td>
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<td>Small, Joyce E.</td>
<td>Counseling, General Studies</td>
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<td>Smith, Chester A.A.</td>
<td>Mathematics</td>
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<td>Smith, Dan M.</td>
<td>Administration Of Justice, Correctional</td>
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<td>Smith, Elizabeth Ann</td>
<td>Administration, Sociology</td>
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<td>Sorenson, Dewey</td>
<td>Construction Technology</td>
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<td>Soto, Reynaldo G.</td>
<td>Fire Technology</td>
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<td>Sousa, Frank</td>
<td>Architecture</td>
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<td>Academic Development</td>
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<td>Stenger, V. Ruth</td>
<td>Biology</td>
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<td>Stewart, Sheryl</td>
<td>Management</td>
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</tbody>
</table>
Stone, Corrine
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