

# Programs of Study

**ACCOUNTING**

*See Business Administration*

**AGRICULTURE**

**Agriculture Business Management Certificate of Achievement**

Upon completion of the following courses with at least a “C” grade in each course, the student will be awarded an

Agriculture Business Management Certificate of Achievement.

*Total Units: 32*

Required Courses:

Course Number	Title	Units
AGBS B2 or AGBS B52	Agricultural Economics Economics in Agriculture	3.0
SOIL B1 or CRPS B1	Introduction to Soil Science Principles of Crop Production	3.0
AGRI B1	Agriculture, Environment and Society	3.0
AGBS B6	Agricultural Sales and Promotion	3.0
CRPS B1	Principles of Crop Production	3.0
MCAG B1 or COMS B5 or  COMS B2	Introduction to Agricultural Mechanics Introduction to Microcomputer Applications using Microsoft Office 2007 Introduction to Computer Information Systems	3.0
WEXP B248ab	Cooperative Work Experience Education	3.0
CRPS B2 or NRES B1	Forage Crops Range Management	3.0
ANSC B1 or ANSC B2 or ANSC B4 or ANSC B10	Introduction to Animal Science Beef Production Dairy Production Horse Production	3.0
FORE B2 or FORE B1 or FORE B3 or FORE B5 or FORE B6	Natural Resources Introduction to Forestry Wildlife Management Identification of California Wildlife Forestry Skills	3.0
AGRI B49	Agriculture Leadership Training	2.0

**Agricultural Business Management Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

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. Agriculture Business Management Associate in Arts Degree is recommended for students planning to transfer to a 4-year college.

*Total Units: 20*

Required Courses:

Course Number	Title	Units
AGBS B2	Agricultural Economics	3.0
SOIL B1	Introduction to Soil Science	3.0

AGRI B1	Agriculture, Environment and Society	3.0
AGBS B6	Agricultural Sales and Promotion	3.0
CRPS B1 or FORE B1 or ANSC B1 or ORNH B1	Principles of Crop Production Introduction to Forestry Introduction to Animal Science Introduction to Ornamental Horticulture	3.0
MCAG B1 or COMS B5 or  COMS B2	Introduction to Agricultural Mechanics Introduction to Microcomputer Applications using Microsoft Office 2007 Introduction to Computer Information Systems	3.0
AGRI B49	Agriculture Leadership Training	2.0

**Agricultural Business Management Associate in Science Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

*Total Units: 32*

Required Courses:

Course Number	Title	Units
AGBS B2	Agricultural Economics	3.0
SOIL B1	Introduction to Soil Science	3.0
AGRI B1	Agriculture, Environment and Society	3.0
AGBS B6	Agricultural Sales and Promotion	3.0
CRPS B1	Principles of Crop Production	3.0
MCAG B1 or COMS B5 or  COMS B2	Introduction to Agricultural Mechanics Introduction to Microcomputer Applications using Microsoft Office 2007 Introduction to Computer Information Systems	3.0
WEXP B248ab	Cooperative Work Experience Education	3.0
CRPS B2 or NRES B1	Forage Crops Range Management	3.0
ANSC B1 or ANSC B2 or ANSC B4 or ANSC B10	Introduction to Animal Science Beef Production Dairy Production Horse Production	3.0
FORE B2 or FORE B1 or FORE B3 or FORE B5 or FORE B6	Natural Resources Introduction to Forestry Wildlife Management Identification of California Wildlife Forestry Skills	3.0
AGRI B49	Agriculture Leadership Training	2.0

**Animal Science Certificate of Achievement**

*See also Preveterinary Medical Option and Registered Veterinary Technician.*

Upon completion of the following courses with at least a “C” grade in each course, the student will be awarded an Animal Science Certificate of Achievement.

*Total Units: 30*

Required Courses:

Course Number	Title	Units
AGRI B1	Agriculture, Environment and Society	3.0
ANSC B1	Introduction to Animal Science	3.0
AGRI B49	Agriculture Leadership Training	2.0

Select 22 units from the following courses:

Course Number	Title	Units
ANSC B2	Beef Production	3.0
ANSC B3	Sheep Production	3.0

ANSC B4	Dairy Production	3.0
ANSC B6	Applied Animal Nutrition	4.0
ANSC B7	Animal Diseases	3.0
ANSC B10	Horse Production	3.0
ANSC B11	Livestock Selection and Evaluation	3.0
ANSC B22	Animals and Society	3.0
ANSC B20	Companion Animal Care	4.0
MCAG B1	Introduction to Agricultural Mechanics	3.0
ANSC B60	Bovine Reproduction	2.0
ANSC B71	Diseases of Beef and Dairy Cattle	1.0
ANSC B72	Equine Health	1.0
ANSC B74	Equine Nutrition	1.0
ANSC B80	Introduction to Veterinary Technology	2.0
ANSC B82	Anatomy and Physiology of Domestic Animals	2.0
ANSC B84	Small Animal Diseases	1.5
ANSC B86	Pharmacology for Veterinary Technicians	1.5
ANSC B88	Surgery, Dental and Anesthesiology for Veterinary Technicians	1.5
ANSC B90	Emergency Medicine, Surgery/Nursing Procedures for Veterinary Technicians	2.0
ANSC B92	Clinical Pathology for Veterinary Technicians	2.0
ANSC B94	Caged Birds, Laboratory, and Exotic Animal Medicine	2.0
ANSC B96	Radiology, Ultrasound, and Diagnostic Imaging for Veterinary Technology	1.5
WEXP B248ab or WEXP B249ab	Cooperative Work Experience Education	3.0

**Animal Science Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

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 horse, beef, sheep, swine and dairy cattle are stressed in the courses.

Total Units: 23

Required Courses:

Course Number	Title	Units
AGBS B2	Agricultural Economics	3.0
AGRI B1	Agriculture, Environment and Society	3.0
ANSC B1	Introduction to Animal Science	3.0
ANSC B2 or ANSC B3 or ANSC B4 or ANSC B10	Beef Production	3.0
ANSC B6	Applied Animal Nutrition	3.0
ANSC B7	Animal Diseases	3.0
AGRI B49	Agriculture Leadership Training	2.0
MCAG B1 or ANSC B11 or NRES B1	Introduction to Agricultural Mechanics	3.0
	Livestock Selection and Evaluation	
	Range Management	

**Animal Science Associate in Science Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

Total Units: 29

Required Courses:

Course Number	Title	Units
AGBS B2	Agricultural Economics	3.0
AGRI B1	Agriculture, Environment and Society	3.0
ANSC B1	Introduction to Animal Science	3.0
MCAG B1	Introduction to Agricultural Mechanics	3.0
WEXP B248ab or WEXP B249ab	Cooperative Work Experience Education	3.0
AGRI B49	Agriculture Leadership Training	2.0

Select 6 units from the following courses:

ANSC B2	Beef Production	3.0
ANSC B3	Sheep Production	3.0
ANSC B4	Dairy Production	3.0
ANSC B10	Horse Production	3.0

Select 6 units from the following courses:

ANSC B6	Applied Animal Nutrition	4.0
ANSC B7	Animal Diseases	3.0
ANSC B11	Livestock Selection & Evaluation	3.0
ANSC B20	Companion Animal Care	4.0
ANSC B60	Bovine Reproduction	2.0
ANSC B71	Diseases of Beef and Dairy Cattle	1.0
ANSC B72	Equine Health	1.0
ANSC B74	Equine Nutrition	1.0
ANSC B80	Introduction to Veterinary Technology	2.0
ANSC B82	Anatomy and Physiology of Domestic Animals	2.0
ANSC B84	Small Animal Diseases	1.5
ANSC B85	Large Animal Diseases	1.5
ANSC B86	Pharmacology for Veterinary Technicians	1.5
ANSC B88	Surgery, Dental and Anesthesiology for Veterinary Technicians	1.5
ANSC B90	Emergency Medicine, Surgery/Nursing Procedures for Veterinary Technicians	2.0
ANSC B92	Clinical Pathology for Veterinary Technicians	2.0
ANSC B94	Caged Birds, Laboratory, and Exotic Animal Medicine	2.0
ANSC B96	Radiology, Ultrasound, and Diagnostic Imaging for Veterinary Technology	1.5
NRES B1	Range Management	3.0

**Environmental Horticulture Certificate of Achievement**

The Certificate of Achievement in Environmental Horticulture is designed for the student desiring specialized training in order to enter the workforce in the least amount of time. See also Plant Science.

Upon completion of the following courses with at least a "C" grade in each course, the student will be awarded an Environmental Horticulture Certificate of Achievement.

Total Units: 29

Required Courses:

Course Number	Title	Units
CRPS B3	Integrated Pest Management	3.0
ORNH B1	Introduction to Ornamental Horticulture	3.0
ORNH B2	Fundamentals of Nursery Management and Plant Production	3.0
ORNH B3	Landscape Installation and Maintenance	3.0
ORNH B4	Plant Propagation	3.0
ORNH B6	Ornamental Plant Identification - Ground Covers, Vines, and Dwarf Shrubs	3.0

ORNH B7	Ornamental Plant Identification - Large Shrubs, Small Trees, Large Trees & Palms	3.0
ORNH B8	Introduction to Landscape Design	3.0
WEXP B248ab or WEXP B249ab	Cooperative Work Experience Education	3.0
AGRI B49	Agriculture Leadership Training	2.0

**Environmental Horticulture Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

The Associate in Arts degree in Environmental Horticulture is designed for the student planning to transfer to a 4 year college or university. See also Plant Science.

Total Units: 21

Required Courses:

Course Number	Title	Units
SOIL B1	Introduction to Soil Science	3.0
CRPS B10	Plant Biology	4.0
ORNH B1	Introduction to Ornamental Horticulture	3.0
ORNH B4	Plant Propagation	3.0
ORNH B6	Ornamental Plant Identification - Ground Covers, Vines, and Dwarf Shrubs	3.0
ORNH B7	Ornamental Plant Identification - Large Shrubs, Small Trees, Large Trees & Palms	3.0
AGRI B49	Agriculture Leadership Training	2.0

**Environmental Horticulture Associate in Science Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

The Associate in Science degree in Environmental Horticulture is designed for the student desiring to enter the workforce after earning a 2 year degree. See Plant Science.

Total Units: 33

Required Courses:

Course Number	Title	Units
CRPS B3	Integrated Pest Management	3.0
CRPS B10	Plant Biology	4.0
ORNH B1	Introduction to Ornamental Horticulture	3.0
ORNH B2	Fundamentals of Nursery Management and Plant Production	3.0
ORNH B3	Landscape Installation and Maintenance	3.0
ORNH B4	Plant Propagation	3.0
ORNH B6	Ornamental Plant Identification - Ground Covers, Vines, and Dwarf Shrubs	3.0
ORNH B7	Ornamental Plant Identification - Large Shrubs, Small Trees, Large Trees and Palms	3.0
ORNH B8	Introduction to Landscape Design	3.0
SOIL B1	Introduction to Soil Science	3.0
AGRI B49	Agriculture Leadership Training	2.0

**Forestry Certificate of Achievement**

Upon completion of the following courses with at least a “C” grade in each course, the student will be awarded a Forestry Certificate of Achievement.

Total Units: 36

Required Courses:

Course Number	Title	Units
AGBS B2 or AGBS B52	Agricultural Economics Economics in Agriculture	3.0
SOIL B1	Introduction to Soil Science	3.0
AGRI B1	Agriculture, Environment and Society	3.0
FORE B1	Introduction to Forestry	3.0
FORE B2	Natural Resources	3.0
FORE B6	Forestry Skills	3.0
MCAG B1	Introduction to Agricultural Mechanics	3.0
WEXP B248ab or WEXP B249ab	Cooperative Work Experience Education	1.0
AGRI B49	Agriculture Leadership Training	2.0

Select 12 units from the following courses:

Course Number	Title	Units
FORE B3	Wildlife Management	3.0
FORE B4	Wildlife Law Enforcement	3.0
FORE B5	Identification of California Wildlife	3.0
FORE B7	Wildland Fire Management	3.0
CRPS B3	Integrated Pest Management	3.0
CRPS B10	Plant Biology	4.0
NRES B1	Range Management	3.0
NRES B2	Parks and Outdoor Recreation	3.0
BIOL B11	Concepts of Biology	4.0
COMS B2	Introduction to Computer Information Systems	3.0
COMS B5	Introduction to Microcomputer Applications using Microsoft Office 2007	3.0
COMS B37	Introduction to Geographic Information Systems	3.0

**Forestry Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

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. Students planning to go to work after completing a 2-year degree should complete the A.S. degree and not the A.A. degree.

Total Units: 24

Required Courses:

Course Number	Title	Units
AGBS B2	Agricultural Economics	3.0
SOIL B1	Introduction to Soil Science	3.0
AGRI B1	Agriculture, Environment and Society	3.0
FORE B2	Natural Resources	3.0
FORE B6	Forestry Skills	3.0
FORE B1 or FORE B3	Introduction to Forestry Wildlife Management	3.0
FORE B4 or FORE B5 or	Wildlife Law Enforcement Identification of California Wildlife	3.0

FORE B7 or	Wildland Fire Management	
CRPS B3 or	Integrated Pest Management	
COMS B37 or	Introduction to Geographic Information Systems	
COMS B2 or	Introduction to Computer Information Systems	
COMS B5	Introduction to Microcomputer Applications using Microsoft Office 2007	
WEXP B248ab or	Cooperative Work Experience Education	1.0
WEXP B249ab	Cooperative Work Experience Education	
AGRI B49	Agriculture Leadership Training	2.0

**Forestry Associate in Science Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

Total Units: 34

Required Courses:

Course Number	Title	Units
AGBS B2	Agricultural Economics	3.0
SOIL B1	Introduction to Soil Science	3.0
AGRI B1	Agriculture, Environment and Society	3.0
CRPS B3	Integrated Pest Management	3.0
FORE B1	Introduction to Forestry	3.0
FORE B2	Natural Resources	3.0
FORE B6	Forestry Skills	3.0
MCAG B1	Introduction to Agricultural Mechanics	3.0
WEXP B248ab or	Cooperative Work Experience Education	1.0
WEXP B249ab	Cooperative Work Experience Education	
AGRI B49	Agriculture Leadership Training	2.0

Select 7 units from the following courses:

FORE B3	Wildlife Management	3.0
FORE B4	Wildlife Law Enforcement	3.0
FORE B5	Identification of California Wildlife	3.0
FORE B7	Wildland Fire Management	3.0
CRPS B10	Plant Biology	4.0
NRES B1	Range Management	3.0
NRES B2	Parks and outdoor Recreation	3.0
BIOL B11	Concepts of Biology	4.0
COMS B2	Introduction to Computer Information Systems	3.0
COMS B5	Introduction to Microcomputer Applications using Microsoft Office 2007	3.0
COMS B37	Introduction to Geographic Information Systems	3.0

**Horticulture Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

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.

Total Units: 24

Required Courses:

Course Number	Title	Units
AGBS B2	Agricultural Economics	3.0

SOIL B1	Introduction to Soil Science	3.0
AGRI B1	Agriculture, Environment and Society	3.0
CRPS B1	Principles of Crop Production	3.0
CRPS B10	Plant Biology	4.0
AGBS B6	Agriculture Sales and Promotion	3.0
MCAG B1 or	Introduction to Agricultural Mechanics	3.0
ORNH B4 or	Plant Propagation	
ORNH B6	Ornamental Plant Identification - Ground Covers, Vines, and Dwarf Shrubs	
AGRI B49	Agriculture Leadership Training	2.0

**Plant Science Certificate of Achievement**

See also Environmental Horticulture.

Upon completion of the following courses with at least a "C" grade in each course, the student will be awarded a Plant Science Certificate of Achievement.

Total Units: 27

Required Courses:

Course Number	Title	Units
AGBS B2	Agricultural Economics	3.0
SOIL B1	Introduction to Soil Science	3.0
AGRI B1	Agriculture, Environment and Society	3.0
ORNH B4	Plant Propagation	3.0
CRPS B3	Integrated Pest Management	3.0

*Horticulture Emphasis*

Course Number	Title	Units
ORNH B2	Fundamentals of Nursery Management and Plant Production	3.0
ORNH B36	Beginning Floral Design	3.0
ORNH B3	Landscape Installation and Maintenance	3.0
ORNH B8	Introduction to Landscape Design	3.0

*Crops Emphasis*

Course Number	Title	Units
CRPS B1	Principles of Crop Production	3.0
CRPS B2	Forage Crops	3.0
CRPS B4	Vegetable Production	3.0
WEXP B248ab or	Cooperative Work Experience Education	3.0
WEXP B249ab	Cooperative Work Experience Education	

**Plant Science Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

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. See also Environmental Horticulture.

Total Units: 22

Required Courses:

Course Number	Title	Units
AGBS B2	Agricultural Economics	3.0
SOIL B1	Introduction to Soil Science	3.0
AGRI B1	Agriculture, Environment and Society	3.0
CRPS B10	Plant Biology	4.0
ORNH B4	Plant Propagation	3.0

*Horticulture Emphasis*

Course Number	Title	Units
ORNH B6	Ornamental Plant Identification - Ground Covers, Vines, and Dwarf Shrubs	3.0
ORNH B7	Ornamental Plant Identification - Large Shrubs, Small Trees, Large Trees and Palms	3.0

*Crops Emphasis*

Course Number	Title	Units
CRPS B1	Principles of Crop Production	3.0
CRPS B2 or CRPS B4	Forage Crops Vegetable Production	3.0

**Plant Science Associate in Science Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

See also Environmental Horticulture.

*Total Units: 25-28*

Required Courses:

Course Number	Title	Units
AGBS B2	Agricultural Economics	3.0
SOIL B1	Introduction to Soil Science	3.0
AGRI B1	Agriculture, Environment and Society	3.0
CRPS B10	Plant Biology	4.0
ORNH B4	Plant Propagation	3.0
CRPS B3	Integrated Pest Management	3.0

*Horticulture Emphasis*

Course Number	Title	Units
ORNH B2	Fundamentals of Nursery Management and Plant Production	3.0
ORNH B36 or ORNH B3	Beginning Floral Design Landscape Installation and Maintenance	3.0
ORNH B8	Introduction to Landscape Design	3.0

*Crops Emphasis*

Course Number	Title	Units
CRPS B1	Principles of Crop Production	3.0
CRPS B2	Forage Crops	3.0
CRPS B4	Vegetable Production	3.0

**Pre-Veterinary Medicine Option**

See Agriculture faculty advisor. 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. See also Animal Science.

*Suggested Courses*

Course Number	Title	Units
WEXP B248ab or WEXP B249ab	Cooperative Work Experience Education	3.0

ANSC B1	Introduction to Animal Science	3.0
ANSC B6	Applied Animal Nutrition	4.0
ANSC B7	Animal Diseases	3.0
BIOL B3a	General Biology I	5.0
BIOL B3b	General Biology II	5.0
CHEM B1a	General Chemistry	5.0
CHEM B1b	General Chemistry and Chemical Analysis	5.0
CHEM B18	Elementary Organic Chemistry	5.0
MATH B22	Elementary Probability and Statistics	5.0
PHYS B2a	General Physics-Mechanics and Heat	4.0
PHYS B2b	General Physics-Sound, Light, Electricity, Magnetism, Modern Physics	4.0

**Registered Veterinary Technicians Option Job Skills Certificate**

This certificate is required by the California Veterinary Medical Board in order to qualify students to be eligible to take the California Veterinary Medical Board's Registered Veterinary Technician licensing exam.

Upon completion of the following courses with at least a "C" grade in each course, the student will be awarded a Registered Veterinary Technicians Job Skills Certificate.

*Total Units: 17.5*

Required Courses:

Course Number	Title	Units
ANSC B80	Introduction to Veterinary Technology	2.0
ANSC B82	Anatomy and Physiology of Domestic Animals	2.0
ANSC B84	Small Animal Diseases	1.5
ANSC B85	Large Animal Diseases	1.5
ANSC B86	Pharmacology for Veterinary Technicians	1.5
ANSC B88	Surgery, Dental and Anesthesiology for Veterinary Technicians	1.5
ANSC B90	Emergency Medicine, Surgery/Nursing Procedures for Veterinary Technicians	2.0
ANSC B92	Clinical Pathology for Veterinary Technicians	2.0
ANSC B94	Caged Birds, Laboratory, and Exotic Animal Medicine	2.0
ANSC B96	Radiology, Ultrasound, and Diagnostic Imaging for Veterinary Technology	1.5

**AIR CONDITIONING, HEATING AND REFRIGERATION**

**Air Condition/Heating/Refrigeration Job Skills Certificate**

This certificate covers the principles of refrigeration and air conditioning applied to domestic and commercial systems. The repair and maintenance of HVAC major system components and controls is emphasized.

Upon completion of the following courses with at least a "C" grade in each course, the student will be awarded an Air Conditioning, Heating, and Refrigeration Job Skills Certificate.

*Total Units: 6*

Required Courses:

Course Number	Title	Units
ACRF B54a	Air Conditioning and Refrigeration	3.0
ACRF B54b	Air Conditioning and Refrigeration	3.0

**AMERICAN SIGN LANGUAGE**

**American Sign Language Associate in Arts Degree**

The major in American Sign Language provides a linguistic and grammatical study of the language and an 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.

Total Units: 18

Required Courses:

Course Number	Title	Units
ASL B1	American Sign Language I	5.0
ASL B2	American Sign Language II	5.0
ASL B3	Advanced American Sign Language Part 1	5.0
ASL B4	Advanced American Sign Language Part 2	3.0

Other Suggested Courses

ASL B6	American Deaf Culture	3.0
ASL B7	Literature and Performance	3.0

**ANIMAL SCIENCE**

See Agriculture

**ANTHROPOLOGY**

**Anthropology Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

The major in anthropology provides a comprehensive study of humans. The objective of this program is to prepare students for transfer to a four-year university. Employment for anthropology graduates is as diverse as the field and includes academic and research positions, such as working at a museum, college, or university; and non-academic positions, such as working for government agencies, businesses and corporations and law enforcement.

Total Units: 18

Required Courses:

Course Number	Title	Units
ANTH B1	Physical Anthropology	3.0
ANTH B2	Cultural Anthropology	3.0
ANTH B3	Introduction to Archaeology	3.0
ANTH B5	North American Indians	3.0
PSYC B1a	General Psychology	3.0
SOCI B1	Introduction to Sociology	3.0

**APPRENTICESHIP PROGRAMS**

Apprenticeship courses are designed for indentured apprentices under the Shelley-Maloney 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 eight 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 Bakersfield College Apprenticeship Department at 395-4408 for further information.

- Carpentry
- Electricians
- Operating Engineers
- Plumbers and Steamfitters
- Sheet Metal

**Apprenticeship Associate Degree Program**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

	Units
Apprenticeship classes for duration of apprentice period (45 units maximum)	12-45
Work Experience (four semesters, maximum of 16 units)	4-16
Related technical subjects as recommended by JAC	0-6

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.

**Apprenticeship Certificate of Achievement Programs**

	Units
Apprenticeship classes for duration of apprentice period	12-45
Work Experience	16
4-16 Electives (as recommended by JAC) to reach 30 units total (if needed).	

**ARCHITECTURE**

**Architectural CAD Job Skills Certificate**

This certificate covers the principles of architectural CAD to include basic 2D and 3D AutoCAD application as well as BIM related software covering architectural practices including both residential and light commercial working documents. Emphasis is also placed on architectural delineation using software.

Upon completion of the following courses with at least a “C” grade in each course, the student will be awarded an Architectural CAD Job Skills Certificate.

*Total Units: 15*

**Required Courses:**

Course Number	Title	Units
INDR B10	Introduction to Industrial Drawing & Graphics	1.0
INDR B11	Introduction to Computer Aided Drafting & Design (CAD)	1.0
INDR B20a	Computer Aided Drafting & Design CAD	3.0
ARCH B16	Digital Tools for Graphics Communication	3.0
ARCH B31	Architectural Practice	3.0
ARCH B32	Architectural Computer Graphics	1.0
ARCH B33	Architectural Computer Practice	3.0

**Architectural Drafting Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

*Total Units: 27.5*

**Required Courses:**

Course Number	Title	Units
ARCH B1	Introduction to Architecture & Environmental Design	1.5
ARCH B6	Materials of Construction	3.0
ARCH B11	Introduction to Drawing, Perspective & Graphics	4.0
ARCH B12	Basic Graphics, Analysis & Communication Skills	4.0
ARCH B16	Digital Tools for Graphics Communication	3.0
ARCH B21	Architectural Design Fundamentals I	4.0
ARCH B31	Architectural Practice	3.0
ARCH B32	Architectural Computer Graphics	1.0
ARCH B33	Architectural Computer Practice	3.0
INDR B11	Introduction to Computer Aided Drafting & Design (CAD)	1.0

*Electives*

Course Number	Title	Units
INDR B20a	Computer Aided Drafting & Design (CAD)	3.0
ARCH B55	Building Codes	3.0

**Architecture/Architectural Drafting Associate in Science Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

*Total Units: 39.5*

**Required Courses:**

Course Number	Title	Units
ARCH B1	Introduction to Architecture & Environmental Design	1.5
ARCH B6	Materials of Construction	3.0
ARCH B11	Introduction to Drawing, Perspective & Graphics	4.0
ARCH B12	Basic Graphics, Analysis & Communication Skills	4.0
ARCH B16	Digital Tools for Graphics Communication	3.0
ARCH B21	Architectural Design Fundamentals I	4.0
ARCH B22	Architectural Design Fundamentals II	4.0
ARCH B31	Architectural Practice	3.0
ARCH B32	Architectural Computer Graphics	1.0
ARCH B33	Architectural Computer Practice	3.0
INDR B11	Introduction to Computer Aided Drafting & Design (CAD)	1.0
MATH B1a or MATH B6a	Precalculus I	4.0
PHYS B2a	Analytic Geometry and Calculus I	4.0
	General Physics-Mechanics & Heat	4.0

*Recommended Courses*

Course Number	Title	Units
INDR B20a	Computer Aided Drafting & Design (CAD)	3.0

*Suggested sequence of courses for Architecture/Architectural Drafting A.S. Degree*

*First Semester*

Course Number	Title	Units
ARCH B1	Introduction to Architecture & Environmental Design	1.5
ARCH B11	Introduction to Drawing, Perspective & Graphics	4.0
ARCH B16	Digital Tools for Graphics Communication	3.0

*Second Semester*

Course Number	Title	Units
ARCH B6	Materials of Construction	3.0
ARCH B12	Basic Graphics, Analysis & Communication Skills	4.0
INDR B11	Introduction to Computer Aided Drafting & Design (CAD)	1.0

*Third Semester*

Course Number	Title	Units
ARCH B21	Architectural Design Fundamentals I	4.0
ARCH B31	Architectural Practice	3.0
ARCH B32	Architectural Computer Graphics	1.0
PHYS B2a	General Physics-Mechanics & Heat	4.0

*Fourth Semester*

Course Number	Title	Units
ARCH B22	Architectural Design Fundamentals II	4.0
ARCH B33	Architectural Computer Practice	3.0



**ART**

*See also Digital Arts*

**Art Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

*Total Units: 18*

Required Courses:

Course Number	Title	Units
ART B2 or ART B2ef	Basic Drawing Figure Drawing	3.0
ART B3ab	Two Dimensional Design	3.0
ART B1 or	Art Appreciation	3.0

*Electives: at least 9 units*

ART B2, B4 Painting and Drawing Series  
 ART B7 Ceramic Series  
 ART B11, B12 Sculpture Series  
 ART B13 Beginning Printmaking  
 ART B17, B18 Photography Series  
 ART B20 to B25 Digital Arts Series  
 ART B30 Art History Series

**AUTOMATED PRODUCTION AND MANUFACTURING PROCESSES TECHNOLOGY**

*See Manufacturing/Machine Technology*

**AUTOMOTIVE****Auto Brakes and Wheel Alignment Certificate of Achievement**

This program develops student's knowledge and skills in automotive brake and suspension systems operation, trouble-shooting, maintenance, repair, and wheel alignment procedures.

*Total Units: 24*

Required Courses:

Course Number	Title	Units
AUTO B106	Automotive Brakes, Suspension, Steering and Alignment	9.0
AUTO B64a or AUTO B14	Automotive Electricity Automotive Tune-Up: Electrical and Ignitions (10.0)	2.0
INDT B10 or Equivalent	Occupational Readiness	3.0

*Electives: to equal at least 24 units*

Course Number	Title	Units
AUTO B65a	Advanced Automotive Performance & Emissions	4.0
AUTO B2a or AUTO B75a & AUTO B75b	Automotive Engine Overhaul Introduction to Engine Overhaul (3.0) Engine Repair Techniques (3.0)	9.0
WELD B1a	Introduction to Oxygen Acetylene Welding and Cutting	1.5
WELD B1b	Introduction to the Welding Processes	1.5
WEXP B249	Cooperative Work Experience Education	1-4.0

INDT B275      Special Problems in Automtive      2-3.0

**Auto Engine Overhaul Certificate of Achievement**

This program develops student's knowledge and skills in the areas of automotive and light truck engine overhaul and machining procedures. Program includes instruction in theory of operation, diagnostic, and repair procedures.

*Total Units: 24*

Required Courses:

*For Day Students:*

Course Number	Title	Units
AUTO B2a	Automotive Engine Overhaul	9.0
AUTO B2b	Automotive Engines Machining	9.0
INDT B10 or Equivalent	Occupational Readiness	3.0

*For Night Students:*

Course Number	Title	Units
AUTO B75a	Introduction to Engine Overhaul	3.0
AUTO B75b	Engine Repair Techniques	3.0
AUTO B75c	Advanced Engine Overhaul	3.0
AUTO B75d	Advanced Engine Machining	3.0
INDT B10 or Equivalent	Occupational Readiness	3.0

*Electives: to equal at least 24 units*

Course Number	Title	Units
AUTO B1ab	Introduction to Automotive Technology	2-2.0
AUTO B14	Automotive Tune-Up: Electrical and Ignitions	10.0
AUTO B15	Automotive Tune-Up:Fuel and Emissions	10.0
AUTO B64a	Automotive Electricity	2.0
AUTO B65a	Advanced Automotive Performance & Emissions	4.0
AUTO B112	Automotive Transmissions and Gear Boxes	9.0
INDT B275	Special Problems in Automotives	2-3.0
WELD B1a	Introduction to Oxygen Acetylene Welding and Cutting	1.5
WELD B1b	Introduction to the Welding Processes	1.5
WEXP B249	Cooperative Work Experience Education	4.0

**Auto Tune-Up and Emission Systems Certificate of Achievement**

This program develops student's knowledge and skills in the areas of automotive and light truck tune-up and emission control systems. Program includes instruction in theory of ignition, fuel, and computer control systems as well as emission test procedures and complete diagnostic and repair procedures.

*Total Units: 26*

Required Courses:

Course Number	Title	Units
AUTO B14	Automotive Tune-Up: Electrical and Ignitions	10.0

AUTO B15	Automotive Tune-Up: Fuel and Emissions	10.0
INDT B10 or Equivalent	Occupational Readiness	3.0

*Electives: to equal at least 26 units*

Course Number	Title	Units
AUTO B59	Automotive Air Conditioning	3.0
AUTO B64b	Advanced Automotive Electronics	2.0
AUTO B65b	Enhanced Area Clean Air Car Course	4.0
AUTO B75a or AUTO B2a	Introduction to Engine Overhaul Automotive Engine Overhaul (9.0)	3.0
ELET B1	Basic Electronics (DC and AC)	4.0
ENGL B50	Introduction to College Composition	4.0
WEXP B249	Cooperative Work Experience Education	1-4.0
INDT B275	Special Problems in Automtives	1-3.0

 **Automotive Power-Trains Certificate of Achievement**

This program develops student’s knowledge and skills in the areas of automotive and light truck standard and automotive transmissions, differential and drive train components. Program includes instruction in theory of operation, diagnostic and repair procedures as well as complete repair procedures.  
*Total Units: 24*

Required Courses:

Course Number	Title	Units
AUTO B112	Automotive Transmissions and Gear Boxes	9.0
AUTO B14 or AUTO B64a	Automotive Tune-Up: Electrical and Ignitions Automotive Electricity (2.0)	10.0
INDT B10 or Equivalent	Occupational Readiness	3.0

*Electives: to equal at least 24 units*

Course Number	Title	Units
AUTO B106	Automotive Brakes, Suspension, Steering and Alignment	9.0
AUTO B65a	Advanced Automotive Performance & Emissions	4.0
AUTO B2a or AUTO B75a	Automotive Engine Overhaul Introduction to Engine Overhaul	9.0 3.0
WEXP B249	Cooperative Work Experience Education	1-4.0
INDT B275	Special Problems in Automotive	2-3.0
WELD B74a	Introduction to GMAW & FCAW	1.5
WELD B74b	Introduction to GTAW	1.5

**Industrial Technology, Automotive Option Associate in Science Degree**

*Total Units: 32*

Select 32 units from the following courses:

Course Number	Title	Units
AUTO B2a	Automotive Engine Overhaul	9.0
AUTO B2b	Automotive Engines Machining	9.0
AUTO B106	Automotive Brakes, Suspension, Steering and Alignment	9.0
AUTO B112	Automotive Transmissions and Gear Boxes	9.0
AUTO B14	Automotive Tune-Up: Electrical and Ignitions	10.0
AUTO B15	Automotive Tune-Up: Fuel and Emissions	10.0
ELET B1	Basic Electronics (DC and AC)	4.0

**BIOLOGY**

*See also Primary Care Associate*

Biology is the study and application of principles of cell biology, ecology, evolution, genetics, anatomy and physiology as it relates to humans and other organisms. Laboratory and field trip activities emphasize the integrated and interdependent nature of living systems. Course work trains students to use observation and investigation to identify questions and pursue answers using the scientific method.

Graduates with biology degrees may pursue jobs in a variety of fields including; biochemistry, biotechnology, botany, ecology, entomology, genetics, health, immunology, medicine, molecular biology, oceanography, pharmacy, teaching, wildlife management, zoology and related clinical fields. Biology majors may choose to specialize in research based on a particular organism or an aspect of biology related to those listed above.

Candidates for an AS in Biology may select the emphasis that facilitates their interests most closely. The two areas of emphasis are General Biology and Human Biology.

Courses required for the General Biology emphasis include biology and chemistry courses necessary for transfer to 4 year institutions as a biology major, however numerous other courses as well as specialized requirements are necessary for specific institutions. Please refer to the Suggested Program information and check with a counselor concerning requirements for specific transfer institutions. Please note that some courses have prerequisites that should be taken in the appropriate order; it is essential to get counseling to facilitate a smooth pathway to transfer.

Courses required for the Human Biology emphasis include biology and chemistry courses necessary for transfer to allied health programs such as nursing, radiology and physician’s assistant. Please refer to the Suggested Program information and check with a counselor concerning requirements for specific transfer institutions. Please note that some courses have prerequisites that should be taken in the appropriate order.

**Biology Associate in Science Degree**

Emphasis in General Biology

*Total Units: 18*

Required Courses:

Course Number	Title	Units
BIOL B3a	General Biology I	5.0
BIOL B3b	General Biology II	5.0
CHEM B1a	General Chemistry	5.0
CHEM B1b	General Chemistry and Chemical Analysis	5.0

*Electives:*

Course Number	Title	Units
BIOL B16	General Microbiology	5.0
BIOL B21	Special Projects in Biology	1-2.0

**Biology Associate in Science Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

Emphasis in Human Biology

*Total Units: 18*

Required Courses:

Course Number	Title	Units
BIOL B32	Human Anatomy & Physiology I	4.0
BIOL B33	Human Anatomy & Physiology II	4.0
BIOL B16	General Microbiology	5.0

OR (the old series)

Course Number	Title	Units
BIOL B16	General Microbiology	5.0

AND

*Electives to equal at least 18 units:*

Course Number	Title	Units
BIOL B21	Special Projects in Biology	1-2.0
BIOL B34	Pathophysiology	3.0
BIOL B255	Human Anatomy & Physiology Success Lab	0.5- 1.0
CHEM B2a	Introductory General Chemistry	4.0
CHEM B11	Principles of Inorganic, Organic and Biochemistry	5.0
CHEM B1a	General Chemistry	5.0
CHEM B1b	General Chemistry and Chemical Analysis	5.0
MEDS B60	Medical Terminology	3.0
NUTR B10	Elementary Nutrition	3.0

Note: Students transferring to a 4-year institution for a B.S. in Biology generally take the CHEM B1a, B1b sequence. They should consult the university of their choice as to whether CHEM B8 and B9 should also be taken before transfer.

Note: Students transferring for a B.S. in Nursing should consult the university of choice as to which chemistry sequence meets transfer needs.

**Suggested Program for Biology Majors**

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, reading or English will require at least one additional semester and should consult a counselor for advice.

*First Semester*

Course Number	Title	Units
BIOL B3a	General Biology I	5.0
CHEM B1a	General Chemistry	5.0
ENGL B1a	Expository Composition	4.0
	Art or Humanities Elective	3.0

*Second Semester*

Course Number	Title	Units
BIOL B3b	General Biology II	5.0
CHEM B1b	General Chemistry and Chemical Analysis	5.0
ENGL B2 or	Advanced Composition and Critical Thinking	5.0
PHIL B9	Critical Thinking and Advanced Composition (4.0)	

*Third Semester*

Course Number	Title	Units
MATH B6a	Analytic Geometry and Calculus I	4.0
PHYS B2a	General Physics-Mechanics and Heat	4.0
COMM B1	Public Speaking	3.0
	Art or Humanities elective	3.0
	Social or Behavioral Science elective	3.0

*Fourth Semester*

Course Number	Title	Units
MATH B6b	Analytic Geometry and Calculus II	4.0
PHYS B2b	General Physics-Sound, Light, Electricity, Magnetism, Modern Physics	4.0
	Art or Humanities elective	3.0
	Social or Behavioral Science elective	3.0

Note: Some UC campuses now require calculus-based physics for biology majors and other particular courses. If you are planning to transfer to a UC campus, contact their admissions office for advice.

**BUSINESS ADMINISTRATION**

The Business Department strives to promote and enhance the economic development of the community; to provide for lifelong learning and academic excellence through course content, application, and technology; to serve diverse populations with a sense of worth and dignity; to establish work ethics relative to a positive work environment; to meet workforce needs through skills development, training, and personal growth; and to communicate a sense of vision and renewal through a creative utilization of productive and innovative resources.

**Accounting Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

*Total Units: 30.5*

Required Courses:

Course Number	Title	Units
BSAD B53a	Introduction to Accounting 1	3.0
BSAD B53b	Introduction to Accounting 2	3.0

BSAD B54	Payroll Accounting	3.0
BSAD B55	Computer Accounting Applications	3.0
BSAD B40	Personal Finance	3.0
BSAD B51	Business Mathematics	3.0
BSAD B264	Ten-Key Proficiency	0.5
BSAD B18	Business Law	3.0
BSAD B20	Introduction to Business	3.0
BSAD B5	Human Relations/People Skills	3.0
COMS B5	Introduction to Microcomputer Applications using Microsoft Office 2007	3.0

Note: BSAD B1 may be substituted for BSAD B53a and BSAD B53b.

**Administrative Office Assistant**

The Administrative Office programs are designed to provide the skills and competencies needed to become an efficient, productive member of an office support team. Courses are designed to help students learn to analyze and coordinate office duties and systems, develop proficiency in the use of integrated software, and improve oral and written communication. Emphasis is placed on non-technical as well as technical skills. Students have the option of completing certificates and/or a two-year degree program.

**Office Assistant Job Skills Certificate**

This certificate prepares students as entry-level office support staff. Students are urged to continue beyond the Job Skills Certificate and earn a Certificate of Achievement or Associate of Arts Degree.

Upon completion of the following courses with at least a “C” grade in each course, the student will be awarded an Office Assistant Job Skills Certificate.

*Total Units: 11*

Required Courses:

Course Number	Title	Units
BSAD B252abc	Computer Keyboarding, Parts 1-2-3	3.0
BSAD B287	Filing	1.5
BSAD B85/B285	Business English	3.0
COMS B5	Introduction to Microcomputer Applications using Microsoft Office 2007	3.0
BSAD B264	Ten-Key Proficiency	0.5

**Office Assistant Certificate of Achievement**

An Office Assistant Certificate of Achievement increases the student’s employability as office support staff. Students who have completed the Job Skills Certificate courses can quickly upgrade to the Certificate of Achievement by completing the following courses with at least a “C” grade.

*Total Units: 27.5*

Required Courses:

Course Number	Title	Units
BSAD B252abc	Computer Keyboarding, Parts 1-2-3	3.0
BSAD B287	Filing	1.5
BSAD B85/B285	Business English	3.0
COMS B5	Introduction to Microcomputer Applications using Microsoft Office 2007	3.0
BSAD B264	Ten-Key Proficiency	0.5

BSAD B53a	Introduction to Accounting	3.0
BSAD B5	Human Relations/People Skills	3.0
BSAD B88	Office Procedures	3.0
BSAD B253abc	Document Processing, Part 1-2-3	3.0
BSAD B280 or WEXP B248 or WEXP B249	Machine Transcription	1.5
BSAD B20	Cooperative Work Experience Education	1-3.0
BSAD B20	Introduction to Business	3.0

**Administrative Office Assistant Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

Designed to prepare the student for employment as office support staff to assist managers, executives, and professionals.

*Total Units: 30.5*

Required Courses:

Course Number	Title	Units
BSAD B252abc	Computer Keyboarding, Parts 1-2-3	3.0
BSAD B253abc	Document Processing, Parts 1-2-3	3.0
BSAD B287	Filing	1.5
BSAD B85/B285	Business English	3.0
BSAD B88	Office Procedures	3.0
BSAD B5	Human Relations/People Skills	3.0
COMS B5	Introduction to Microcomputer Applications using Microsoft Office 2007	3.0
BSAD B53a	Introduction to Accounting I	3.0
BSAD B264	Ten-Key Proficiency	0.5
BSAD B280 or WEXP B248 or WEXP B249	Machine Transcription	1.5
BSAD B20	Cooperative Work Experience Education	1-3.0
BSAD B20	Introduction to Business	3.0
BSAD B65	Principles of Organizational Communication	3.0

**Bookkeeping Certificate of Achievement**

The Bookkeeping program provides students with the knowledge and skills necessary for employment and growth in the accounting profession. Using the “language of business,” accountants assemble and analyze, process, and communicate essential information about financial operations.

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.

*Total Units: 25.5*

Required Courses:

Course Number	Title	Units
BSAD B53a	Introduction to Accounting 1	3.0
BSAD B53b	Introduction to Accounting 2	3.0
BSAD B54	Payroll Accounting	3.0
BSAD B55	Computer Accounting Applications	3.0
BSAD B51	Business Mathematics	3.0
BSAD B264	Ten-Key Proficiency	0.5
BSAD B252a	Computer Keyboarding, Part 1	1.0
BSAD B20	Introduction to Business	3.0

COMS B5	Introduction to Microcomputer Applications using Microsoft Office 2007	3.0
BSAD B5	Human Relations/People Skills	3.0

**Business Administration Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

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.

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 the major requirements for the Associate in Arts Degree from Bakersfield College.

*Total Units: 25 or 26*

Required Courses:

Course Number	Title	Units
BSAD B1	Financial Accounting	4.0
BSAD B2	Managerial Accounting	4.0
COMS B5 or	Introduction to Microcomputer Applications using Microsoft Office 2007	3.0
COMS B2 or	Introduction to Computer Information Systems	
COMS B3	Computer Concepts and Survival Skills	
ECON B1	Principles of Economics-Micro	3.0
ECON B2	Principles of Economics-Macro	3.0
MATH B23 or	Finite Mathematics	3.0
MATH B2 or	Basic Functions and Calculus for Business	5.0
MATH B6a	Analytic Geometry and Calculus I	4.0
MATH B22	Elementary Probability and Statistics	5.0

**General Business Job Skills Certificate**

A Job Skills Certificate in General Business will provide the student with broad-based knowledge and skills in business. These core classes provide the foundation for a variety of successful careers in business. Students must complete courses with at least a “C” grade.

*Total Units: 12*

Required Courses:

Course Number	Title	Units
BSAD B5	Human Relations/People Skills	3.0
BSAD B20	Introduction to Business	3.0
COMS B5	Introduction to Microcomputer Applications using Microsoft Office 2007	3.0
BSAD B53a or	Introduction to Accounting 1	3.0
BSAD B1	Financial Accounting (4)	

**General Management Job Skills Certificate**

The management curriculum is designed to provide the knowledge and skills necessary for success as a manager in today’s demanding organizational climate. The program benefits the individual who aspires to a management position in any organization, including business, government or service organizations.

Upon completion of the following courses with at least a “C” grade in each course, the student will be awarded a General Management Job Skills Certificate.

*Total Units: 12*

Required Courses:

Course Number	Title	Units
BSAD B61	Human Resources Management	3.0
BSAD B65	Principles of Organizational Communication	3.0
BSAD B5	Human Relations/People Skills	3.0
BSAD B43	Principles of Management	3.0

**Marketing Certificate of Achievement**

The Marketing Program provides students with knowledge, techniques, and perspectives relating to the principles and practice of marketing goods and services in a global economy.

Bakersfield College’s Marketing Program helps students develop a strong understanding of the techniques used in successful business marketing. That training starts with a strong emphasis on the relationship theory and practice in contemporary marketplaces. Upon completion of the following courses with at least a “C” grade in each course, a student will be awarded a Marketing Certificate of Achievement.

*Total Units: 21*

Required Courses:

Course Number	Title	Units
BSAD B20	Introduction to Business	3.0
BSAD B9	Fundamentals of Marketing	3.0
BSAD B85/B285 or	Business English	3.0
BSAD B65	Principles of Organizational Communication	3.0
BSAD B90	Fundamentals of Retailing	3.0
COMS B5	Introduction to Microcomputer Applications using Microsoft Office 2007	3.0
BSAD B5	Human Relations/People Skills	3.0
BSAD B53a or	Introduction to Accounting I	3.0
BSAD B1	Financial Accounting (4.0)	

**Marketing Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

*Total Units: 24*

Required Courses:

Course Number	Title	Units
BSAD B20	Introduction to Business	3.0
BSAD B9	Fundamentals of Marketing	3.0
BSAD B90	Fundamentals of Retailing	3.0
BSAD B51 or	Business Mathematics	3.0
MATH B23	Finite Mathematics	
BSAD B53a &	Introduction to Accounting 1	3.0
BSAD B53b or	Introduction to Accounting 2	3.0

BSAD B1	Financial Accounting (4.0)	
BSAD B5	Human Relations/People Skills	3.0
COMS B5	Introduction to Microcomputer Applications using Microsoft Office 2007	3.0

**California Real Estate Certificate of Achievement**

The Real Estate courses offered are recognized by the State of California and accepted as prerequisites for the students to sit for their licensing examinations. These courses are also available for continuing education credits. Upon completion of these courses, the students will have the knowledge to allow them to comply with real estate practice standards imposed by the Real Estate License Law and Commission rules for the State of California. Students have the option of completing certificate and/or two-year degree programs.

This certificate is 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.

*Total Units: 24*

Required Courses:

*(Should be taken in listed order)*

Course Number	Title	Units
BSAD B39	Principles of Real Estate	3.0
BSAD B74 or BSAD B18	Legal Aspects of Real Estate Business Law	3.0
BSAD B75 or BSAD B1 or BSAD B53a	Real Estate Economics Financial Accounting (4.0) Introduction to Accounting (3.0)	3.0
BSAD B76	Real Estate Finance	3.0
BSAD B77	Basic Appraisal Principles	3.0
BSAD B78	Real Estate Practice	3.0
BSAD B20	Introduction to Business	3.0

*Electives: at least 3 units*

Course Number	Title	Units
BSAD B71	Escrow Procedures	3.0
BSAD B79	Real Estate Investment and Taxation	3.0
BSAD B80	Basic Appraisal Procedures	3.0
BSAD B43	Principles of Management	3.0
BSAD B72	Property Management	3.0
WEXP B248ab or WEXP B249ab	Cooperative Work Experience Education	1-4.0
BSAD B73	Common Interest Developments (CIDs)	3.0
BSAD B81	Residential Sales Comparisons & Income Approaches	3.0

**California Real Estate Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

*Total Units: 24*

Required Courses:

Course Number	Title	Units
BSAD B75 or BSAD B1 or	Real Estate Economics Financial Accounting	3.0

BSAD B53a & BSAD B53b	Introduction to Accounting 1 (3.0) Introduction to Accounting 2 (3.0)	
BSAD B39	Principles of Real Estate	3.0
BSAD B74 or BSAD B18	Legal Aspects of Real Estate Business Law	3.0
BSAD B76	Real Estate Finance	3.0
BSAD B77	Basic Appraisal Principles	3.0
BSAD B78	Real Estate Practice	3.0
BSAD B20	Introduction to Business	3.0

*Electives: at least 3 units*

Course Number	Title	Units
BSAD B51	Business Mathematics	3.0
BSAD B264	Ten-Key Proficiency	0.5
BSAD B40	Personal Finance	3.0
BSAD B61	Human Resource Management	3.0
BSAD B71	Escrow Procedures	3.0
BSAD B73	Common Interest Developments (CIDs)	3.0
BSAD B81	Residential Sales Comparisons & Income Approaches	3.0
BSAD B79	Real Estate Investment and Taxation	3.0
BSAD B80	Basic Appraisal Procedures	3.0
WEXP B248ab or WEXP B249ab	Cooperative Work Experience Education	1-4.0

**Retail Management Certificate of Achievement**

A Certificate of Achievement in Retail Management is designed to prepare students for entry-level employment. The Certificate will provide the student with broad-based knowledge and skills in retailing including grocery chains. This foundation can be built into many successful careers. The certificate is approved by members of the Western Association of Food Chains, all the major supermarket chains in the western 13 states. It encompasses several business essentials, including the “soft skills” of management and communication required for career success in the retail food industry. Upon completion of the following courses with at least a “C” grade in each course, a student will be awarded a Retail Management Certificate of Achievement.

*Total Units: 30 or 31*

Required Courses:

Course Number	Title	Units
COMM B1 or COMM B7	Public Speaking Organizational Communication	3.0
BSAD B65	Principles of Organizational Communication	3.0
BSAD B51	Business Mathematics	3.0
COMS B5	Introduction to Microcomputer Applications using Microsoft Office 2007	3.0
BSAD B9	Fundamentals of Marketing	3.0
BSAD B43	Principles of Management	3.0
BSAD B53a or BSAD B1	Introduction to Accounting 1 Financial Accounting (4.0)	3.0
BSAD B90	Fundamentals of Retailing	3.0
BSAD B5	Human Relations/People Skills	3.0
BSAD B61	Human Resources Management	3.0

**CABINETMAKING**

*See Woodworking*

## CHEMISTRY

**Chemistry Associate in Science Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

*Total Units: 39*

## Required Courses:

Course Number	Title	Units
CHEM B1a	General Chemistry	5.0
CHEM B1b	General Chemistry & Chemical Analysis	5.0
CHEM B18	Elementary Organic Chemistry	5.0
BIOL B3b or BIOL B16	*General Biology II General Microbiology	5.0
MATH B6a	Analytic Geometry & Calculus I	4.0
MATH B6b	Analytic Geometry & Calculus II	4.0
COMS B2	Introduction to Computer Information Systems	3.0

## Select 8 units:

PHYS B4a and PHYS B4b	*Mechanics & Wave Motion *Heat, Electricity & Magnetism	4.0 4.0
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**OR**

PHYS B2a and PHYS B2b	General Physics-Mechanics & Heat General Physics-Sound, Light, Electricity, Magnetism, Modern Physics	4.0 4.0
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## \*Recommended courses

*Electives*

PHYS B4c	Optics & Modern Physics	4.0
MATH B6c	Calculus III	4.0

*Suggested Program for Chemistry A.S. Degree**First Semester*

Course Number	Title	Units
CHEM B1a	General Chemistry	5.0
MATH B6a	Analytic Geometry & Calculus I	4.0
COMS B2	Introduction to Computer Information Systems	3.0

*Second Semester*

Course Number	Title	Units
CHEM B1b	General Chemistry & Chemical Analysis	5.0
PHYS B4a	Mechanics & Wave Motion	4.0
MATH B6b	Analytic Geometry & Calculus II	4.0

*Third Semester*

Course Number	Title	Units
CHEM B18	Elementary Organic Chemistry	5.0
MATH B6c	Calculus III	4.0
PHYS B4b or PHYS B2a	*Heat, Electricity, & Magnetism General Physics-Mechanics & Heat	4.0

*Fourth Semester*

Course Number	Title	Units
PHYS B4c	Optics & Modern Physics	4.0
BIOL B16 or	General Microbiology	5.0

BIOL B3b      \*General Biology II

Note: BIOL B3b no longer has BIOL B3a as prerequisite.

**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 B2a-B2b or B4a-B4c) and Chemistry (Chemistry B1a-B1b, B2a or B11) 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: 34 units*

Course Number	Title	Units
CHEM B1a	General Chemistry	5.0
CHEM B1b	General Chemistry & Chemical Analysis	5.0
MATH B6a	Analytic Geometry & Calculus I	4.0
MATH B6b	Analytic Geometry & Calculus II	4.0
MATH B6c	Calculus III	4.0
PHYS B4a	Mechanics & Wave Motion	4.0
PHYS B4b	Heat, Electricity, & Magnetism	4.0
PHYS B4c	Optics & Modern Physics	4.0

*Recommended Courses*

Course Number	Title	Units
MATH B6d	Ordinary Differential Equations	3.0
COMS B2	Introduction to Computer Information Systems	3.0

**CHICANO(A)/LATINO(A) STUDIES**

Chicano(a)/Latino(a) Studies is an interdisciplinary program designed to broaden the student's understanding about the history and cultural background (politics, literature, art) of a people expected to represent the majority population in the Southwestern United States within the next generation.

A Chicano(a)/Latino(a) Studies A.A. Degree will academically prepare students planning to enter professions such as law, medicine, teaching, criminal science, journalism, business and any other that requires a liberal arts education.

*Total Units: 18*

## Required Courses:

Course Number	Title	Units
CHST/HIST B30a	Early Chicano History	3.0
CHST/HIST B30b	History of Chicanos in the Southwest	3.0
CHST/HIST B33	Latin American History	3.0

Any one of the classes below:

SPAN B1ab	Elementary Spanish	5.0
SPAN B2ab	Elementary Spanish	5.0

SPAN B3	Intermediate Spanish	4.0
SPAN B4	Intermediate Spanish	4.0
SPAN B10	Spanish for Native Speakers	4.0

Electives: to equal at least 18 units

Course Number	Title	Units
CHST/ART B30e	Art of Latin America	3.0
CHST/SOCI B36	Sociology of the Chicano	3.0
MUSC B20ma	Mariachi Ensemble	1- 3.0
SOCI B45	Minority Relations	3.0

**CHILD DEVELOPMENT**

**CDA (Child Development Associate)**

The CDA may be substituted for nine semester units of child development credit.

**Child Development Assistant Teacher Job Skills Certificate**

The Job Skills Certificate may be earned by students who satisfactorily complete the 6 units of course work listed below with a grade of “C” or better. This course work meets the requirements for the Child Development Assistant Teacher Permit.

*Total Units: 6*

Required Courses:

Course Number	Title	Units
CHDV B36	Developmentally Appropriate Curriculum	3.0
CHDV B42	Child, Family and the Community	3.0

**Child Development Associate Teacher Job Skills Certificate**

The Job Skills Certificate may be earned by students who satisfactorily complete the 12 units of course work listed below with a grade of “C” or better. This course work meets the requirements for the Child Development Associate Teacher Permit. This course work also meets the Child Development requirements for a fully qualified teacher in a licensed Preschool Child Development Center or School-Age Center.

*Total Units: 12*

Required Courses:

Course Number	Title	Units
CHDV B21	Child Growth and Development:Birth through Adolescence	3.0
CHDV B36	Developmentally Appropriate Curriculum	3.0
CHDV B42	Child, Family and Community	3.0
CHDV B49	Child Health, Safety and Nutrition	3.0

**Child Development Teacher Certificate of Achievement**

The Certificate of Achievement may be earned by students who satisfactorily complete 27 units of course work listed below with a grade of “C” or better. This course work meets the Child Development requirements for the Child Development Teacher Permit. Students may apply for the Permit at the Kern County Superintendent of Schools, Office of Credentials, 636-4750 or 636-4751. Students must also

meet the General Education requirement and Experience requirement in accordance with the California Commission on Teacher Credentialing.

*Total Units: 27*

Required Courses:

Course Number	Title	Units
CHDV B21	Child Growth and Development:Birth through Adolescence	3.0
CHDV B22	Observation and Assessment - Birth through Adolescence	3.0
CHDV B32	Teaching in a Diverse Society	3.0
CHDV B36	Developmentally Appropriate Curriculum	3.0
CHDV B40	Creative Art, Movement, & Music Activities For Young Children	3.0
CHDV B42	Child, Family and Community	3.0
CHDV B49	Child Health, Safety and Nutrition	3.0
CHDV B41	Principles and Practices in Early Childhood Education	3.0
CHDV B41L	Supervised Field Experience in Early Childhood Education	3.0

**Child Development Master Teacher Certificates of Achievement**

The Certificate of Achievement for Master Teacher may be earned by students who satisfactorily complete the required specialization courses listed below with a grade of “C” or better in addition to the courses required for the Child Development Teacher Certificate of Achievement.

**Child Development Master Teacher: Infant Toddler Certificate of Achievement**

The Certificate of Achievement for Infant Toddler may be earned by taking the 27 units of child development courses required for the Child Development Teacher Certificate of Achievement and

*Total Units: 35*

Required Courses:

Completion of the Child Development Teacher Certificate of Achievement (27 units) and:

Course Number	Title	Units
CHDV B13c	Child Growth and Development: The Infant Toddler Years	3.0
CHDV B53a	Early Childhood Education: Adult Supervision	2.0
CHDV B44	Infant/Toddler Care and Development with Supervised Field Experience	3.0

**Child Development Master Teacher: Special Education Certificate of Achievement**

*Total Units: 35*

Required Courses:

Completion of the Child Development Teacher Certificate of Achievement (27 units) and:

Course Number	Title	Units
CHDV B53a	Early Childhood Education: Adult Supervision	2.0



CHDV B33	Survey of Special Education	3.0
CHDV B52	Care of Infants & Toddlers with Disabilities	3.0

### Child Development and Family Relations Associate in Science Degree

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

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 Child Development Teacher Permit.

*Total Units: 24*

Required Courses:

Course Number	Title	Units
CHDV B36	Developmentally Appropriate Curriculum	3.0
CHDV B42	Child, Family and Community	3.0
CHDV B21	Child Growth and Development: Birth Through Adolescence	3.0
CHDV B22	Observation & Assessment-Birth Through Adolescence	3.0
CHDV B49	Child Health, Safety and Nutrition	3.0
CHDV B32	Teaching in a Diverse Society	3.0
CHDV B41	Principles and Practices in Early Childhood Education	3.0
CHDV B41L	Supervised Field Experience in Early Childhood Education	3.0

## COMMUNICATION

### Communication Associate in Arts Degree

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

The Communication Program is designed to give students communication skills in professional, personal, and public contexts. Communication classes provide life skills put to use everyday in a wide variety of circumstances whether that interaction takes place one on one or in groups large and small. An Associate in Arts Degree in Communication is an ideal springboard into future educational and professional endeavors, and it is an ideal double major for nearly every discipline and career.

*Total Units: 18*

Select 18 units from the following courses:

Course Number	Title	Units
COMM B1	Public Speaking	3.0
COMM B2	Interpersonal Communication	3.0
COMM B4	Persuasive Communication	3.0
COMM B5	Rhetoric and Argumentation	3.0
COMM B6	Intercultural Communication	3.0
COMM B7	Organizational Communication	3.0
COMM B8	Small Group Communication	3.0
COMM B9	Health Communication	3.0

COMM B10	Communication and Leadership	3.0
COMM B49a	Communication Ambassadors	3.0

### Communication Certificate of Achievement

The Communication Certificate is designed to enhance a student's ability to communicate in social, professional, and relational contexts. This certificate is intended to enhance the communication skills of students from all majors and career plans. Students are required to take four classes for a total of twelve units.

*Total Units: 12*

Select 12 units from the following courses:

Course Number	Title	Units
COMM B1	Public Speaking	3.0
COMM B2	Interpersonal Communication	3.0
COMM B4	Persuasive Communication	3.0
COMM B5	Rhetoric and Argumentation	3.0
COMM B6	Intercultural Communication	3.0
COMM B7	Organizational Communication	3.0
COMM B8	Small Group Communication	3.0
COMM B10	Communication and Leadership	3.0

## COMPUTER GRAPHIC ARTS

*See Digital Arts*

## COMPUTER STUDIES

### Computer Information Systems Certificate of Achievement

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.

*Total Units: Minimum of 36*

Required Courses:

Course Number	Title	Units
COMS B2 or COMS B3	Introduction to Computer Information Systems	3.0
COMS B5	Computer Concepts & Survival Skills	3.0
COMS B5	Introduction to Microcomputer Applications using Microsoft Office 2007	3.0
COMS B10	Structured Program Design using Python	2.0
COMS B16	COBOL Programming Language	3.0
COMS B32	Programming with Visual Basic	3.0
COMS B34	SQL and Database Systems Design	3.0
COMS B37	Introduction to Geographic Information Systems (GIS)	3.0
COMS B82	CompTIA Network+ (Networking Technologies)	3.0
BSAD B1 or BSAD B53a and BSAD B20	Financial Accounting	4.0
	Introduction to Accounting (3)	
	Introduction to Business (3)	

Programming Emphasis -- Select 9 units from the following courses:

Course Number	Title	Units
COMS B14	Introduction to Programming with Java	3.0

COMS B25	Programming with C	3.0
COMS B35	OOP and Data Structures with C++	3.0
COMS B74a	Web Design: Macromedia Dreamweaver	3.0
COMS B74b	Web Design: HTML & XML	3.0
COMS B74c	Web Programming: JavaScript/CSS	3.0

Networking Emphasis -- Select 9 units from the following courses:

Course Number	Title	Units
COMS B41	CompTIA Linux+	3.0
COMS B91	MSCE Administering and Supporting Microsoft Server 2003	3.0
COMS B92	Windows 2000 Professional (MCSE 70-210 Exam Prep)	3.0
COMS B93	Microsoft Active Directory Services (MCSE 70-219 Exam Prep)	3.0
COMS B95	MCSE Internetworking with Microsoft TCP/IP	3.0
COMS B100	Computer Hardware Diagnostics	4.0

Business Emphasis -- Select 9 units from the following courses:

Course Number	Title	Units
BSAD B2	Managerial Accounting	4.0
BSAD B20	Introduction to Business	3.0
MATH B22	Elementary Probability and Statistics	5.0

**Computer Information Systems Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

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.

*Total Units: Minimum of 22*

Required Courses:

Course Number	Title	Units
COMS B2 or COMS B3 or COMS B5	Introduction to Computer Information Systems	3.0
COMS B3 or COMS B5	Computer Concepts & Survival Skills	
COMS B5	Introduction to Microcomputer Applications using Microsoft Office 2007	
COMS B10 or COMS B14	Structured Program Design using Python	2.0
COMS B14	Introduction to Programming with Java (3.0)	
COMS B16 or COMS B35	COBOL Programming Language	3.0
COMS B35	OOP and Data Structures with C++	
COMS B32	Programming with Visual Basic	3.0
BSAD B1	Financial Accounting	4.0
MATH B22 or PSYC B5	Elementary Probability and Statistics	5.0
PSYC B5	Elementary Statistics for the Behavioral and Social Sciences (5.0)	
COMS B34	SQL and Database Systems Design	3.0

Other Suggested Courses

Course Number	Title	Units
COMS B5	Introduction to Microcomputer Applications using Microsoft Office 2007	3.0
COMS B10	Structured Program Design using Python	2.0
COMS B25	Programming with C	3.0
COMS B35	OOP and Data Structures with C++	3.0
COMS B37	Introduction to Geographic Information Systems (GIS)	3.0

COMS B41	CompTIA Linux+	3.0
COMS B74a	Web Design: Macromedia Dreamweaver	3.0
COMS B74b	Web Design: HTML & XML	3.0
COMS B74c	Web Programming: JavaScript/CSS	3.0
COMS B82	CompTIA Network+ (Networking Technologies)	3.0
COMS B91	MCSE Administering and Supporting Microsoft Server 2003	3.0
COMS B93	Microsoft Active Directory Services (MCSE 70-219 Exam Prep)	3.0
COMS B95	MCSE Internetworking with Microsoft TCP/IP	3.0
MATH B2	Basic Functions and Calculus for Business	5.0
BSAD B2	Managerial Accounting	4.0
BSAD B20	Introduction to Business	3.0
ECON B1	Principles of Economics-Micro	3.0
ECON B2	Principles of Economics-Macro	3.0
BSAD B43	Principles of Organization and Management	3.0
BSAD B9	Fundamentals of Marketing	3.0
COMM B1	Public Speaking	3.0

**Computer Information Systems Associate in Science Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

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.

*Total Units: Minimum of 36*

Required Courses:

Course Number	Title	Units
COMS B2 or COMS B3 or COMS B5	Introduction to Computer Information Systems	3.0
COMS B3	Computer Concepts & Survival Skills	
COMS B5	Introduction to Microcomputer Applications using Microsoft Office 2007	3.0
COMS B10	Structured Program Design using Python	2.0
COMS B16	COBOL Programming Language	3.0
COMS B32	Programming with Visual Basic	3.0
COMS B14 or COMS B35	Introduction to Programming with Java	3.0
COMS B35	OOP and Data Structures with C++	
COMS B34	SQL and Database Systems Design	3.0
COMS B82	CompTIA Network+ (Networking Technologies)	3.0
BSAD B1	Financial Accounting	4.0

Programming Emphasis -- Select 9 units from the following courses:

Course Number	Title	Units
COMS B25	Programming with C	3.0
COMS B35	OOP and Data Structures with C++	3.0
COMS B37	Introduction to Geographic Information Systems (GIS)	3.0
COMS B74a	Web Design: Macromedia Dreamweaver	3.0
COMS B74b	Web Design: HTML & XML	3.0
COMS B74c	Web Programming: JavaScript/CSS	3.0

Networking Emphasis -- Select 9 units from the following courses:

Course Number	Title	Units
COMS B41	CompTIA Linux+	3.0
COMS B91	MCSE Administering and Supporting Microsoft Server 2003	3.0
COMS B93	Microsoft Active Directory Services (MCSE 70-219 Exam Prep)	3.0
COMS B95	MCSE Internetworking with Microsoft TCP/IP	3.0
COMS B100	Computer Hardware Diagnostics	4.0

Business Emphasis -- Select 9 units from the following courses:

Course Number	Title	Units
BSAD B2	Managerial Accounting	4.0
BSAD B20	Introduction to Business	3.0
ART B20	Introduction to Digital Arts	3.0

Other Suggested Courses

Course Number	Title	Units
MATH B2	Basic Functions and Calculus for Business	5.0
ECON B1	Principles of Economics-Micro	3.0
ECON B2	Principles of Economics-Macro	3.0
BSAD B43	Principles of Organization and Mgt.	3.0
BSAD B9	Fundamentals of Marketing	3.0
COMM B1	Public Speaking	3.0

### Computer Science Certificate of Achievement

Designed for the student who plans to specialize in math, science, or engineering computer applications. Upon completion of the following courses with at least a "C" grade in each course, a student will be awarded a Computer Science Certificate of Achievement.

*Total Units: Minimum of 36*

Required Courses:

Course Number	Title	Units
COMS B2 or	Introduction to Computer Information Systems	3.0
COMS B3	Computer Concepts & Survival Skills	
COMS B10	Structured Program Design using Python	2.0
COMS B14	Introduction to Programming with Java	
COMS B25	Programming with C	3.0
COMS B32	Programming with Visual Basic	3.0
COMS B35	OOP and Data Structures with C++	3.0
COMS B82	CompTIA Network+ (Networking Technologies)	3.0
MATH B6a	Analytic Geometry and Calculus I	4.0

Electives: at least 12 units

Course Number	Title	Units
COMS B5	Introduction to Microcomputer Applications using Microsoft Office 2007	3.0
COMS B14	Introduction to Programming with Java	3.0
COMS B16	COBOL Programming Language	3.0
COMS B34	SQL and Database Systems Design	3.0
COMS B37	Introduction to Geographic Information Systems (GIS)	3.0
COMS B41	CompTIA Linux+	3.0
COMS B74a	Web Design: Macromedia Dreamweaver	3.0
COMS B74b	Web Design: HTML & XML	3.0
COMS B74c	Web Programming: JavaScript/CSS	3.0

COMS B91	MCSE Administering and Supporting Microsoft Server 2003	3.0
COMS B93	Microsoft Active Directory Services (MCSE 70-219 Exam Prep)	3.0
COMS B95	MCSE Internetworking with Microsoft TCP/IP	3.0
COMS B100	Computer Hardware Diagnostics	4.0
MATH B22	Elementary Probability and Statistics	5.0

### Computer Science Associate in Science Degree

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

Designed for the student who plans to transfer to California State University system or private colleges and to specialize in computer science, math, science, or engineering applications. Students will learn professional skills leading to employment and will gain a broad educational background.

*Total Units: Minimum of 37*

Required Courses:

Course Number	Title	Units
COMS B2 or	Introduction to Computer Information Systems	3.0
COMS B3	Computer Concepts & Survival Skills	
COMS B10	Structured Program Design using Python	2.0
COMS B25	Programming with C	3.0
MATH B6a	Analytic Geometry and Calculus I	4.0
MATH B6b	Analytic Geometry and Calculus II	4.0
MATH B6c	Calculus III	4.0
MATH B22	Elementary Probability and Statistics	5.0

Electives: at least 12 units

Course Number	Title	Units
COMS B14	Introduction to Programming with JAVA	3.0
COMS B32	Programming with Visual Basic	3.0
COMS B34	SQL and Database Systems Design	3.0
COMS B35	OOP and Data Structures with C++	3.0
COMS B41	CompTIA Linux+	3.0
COMS B82	CompTIA Network+ (Networking Technologies)	3.0
COMS B91	MCSE Administering and Supporting Microsoft Server 2003	3.0
COMS B92	Windows 2000 Professional (MCSE 70-210 Exam Prep)	3.0
COMS B93	Microsoft Active Directory Services (MCSE 70-219 Exam Prep)	3.0
COMS B95	MCSE Internetworking with Microsoft TCP/IP	3.0
COMS B100	Computer Hardware Diagnostics	4.0
MATH B6d	Ordinary Differential Equations	3.0
MATH B6e	Elementary Linear Algebra	3.0

Other Suggested Courses

Course Number	Title	Units
COMS B5	Introduction to Microcomputer Applications using Microsoft Office 2007	3.0
COMS B37	Introduction to Geographic Information Systems (GIS)	3.0
COMS B74a	Web Design: Macromedia Dreamweaver	3.0
COMS B74b	Web Design: HTML & XML	3.0
COMS B74c	Web Programming: JavaScript/CSS	3.0
PHYS B2a	General Physics-Mechanics and Heat	4.0

PHYS B2b	General Physics-Sound, Light Electricity, Magnetism, Modern Physics	4.0
PHIL B7	Introduction to Logic	3.0
ELET B1	Basic Electronics (DC and AC)	4.0

**Web Development Certificate of Achievement**

This program is designed for the student who plans to design, create and maintain Websites. The student will learn professional skills leading to employment and will gain a broad educational background, In addition, the program provides a foundation for further studies in this and other computer-related fields.

*Total Units: Minimum of 32.5*

Required Courses:

Course Number	Title	Units
COMS B74a	Web Design: Macromedia Dreamweaver	3.0
COMS B74b	Web Design: HTML & XML	3.0
COMS B74c or COMS B74e	Web Programming: JavaScript/CSS Intermediate Web Development: Web Authoring Tools (3.0)	3.0
COMS B75b or COMS B75c	Web Programming: Active Server Pages Web Programming: PHP	3.0
COMS B101	Web Systems and Security	3.0
COMS B82	CompTIA Network+ (Networking Technologies)	3.0
ART B20	Introduction to Digital Arts	3.0
BSAD B91	E - Commerce	1.0
BSAD B65	Principles of Organizational Communication	3.0

Design Emphasis -- Select 9 units from the following courses:

Course Number	Title	Units
ART B21	Graphic Design	3.0
ART B22	Digital Illustration	3.0
ART B24	Digital Imaging	3.0
ART B25	Typography	3.0
COMS B76a	Web Design: Macromedia Flash	3.0
JRNL B1	Media and Society	3.0

Web Programming Emphasis -- Select 9 units from the following courses:

Course Number	Title	Units
COMS B10	Structured Program Design using Python	2.0
COMS B14	Introduction to Programming with Java	3.0
COMS B32	Programming with Visual Basic	3.0
COMS B34	SQL and Database Systems Design	3.0
COMS B79	Advanced Programming with Visual Basic	3.0
COMS B76a	Web Design: Macromedia Flash	3.0

Cross-Discipline Emphasis -- Select 9 units from the following courses:

Any combination of 9 units from the above elective classes.

**Web Development Associate in Science Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

This program is designed for the student who plans to design, create and maintain Websites. The student will learn professional skills leading to employment and will gain a broad educational background, In addition, the program

provides a foundation for further studies in this and other computer-related fields.

*Total Units: Minimum of 26.5*

Required Courses:

Course Number	Title	Units
COMS B74a	Web Design: Macromedia Dreamweaver	3.0
COMS B74b	Web Design: HTML & XML	3.0
COMS B74c or COMS B74e	Web Programming: JavaScript/CSS Intermediate Web Development: Web Authoring Tools (3.0)	3.0
COMS B101	Web Systems and Security	3.0
COMS B82	CompTIA Network+ (Networking Technologies)	3.0
ART B20	Introduction to Digital Arts	3.0
BSAD B91	E - Commerce	1.0

Design Emphasis -- Select 9 units from the following courses:

Course Number	Title	Units
ART B21	Graphic Design	3.0
ART B22	Digital Illustration	3.0
ART B24	Digital Imaging	3.0
ART B25	Typography	3.0
COMS B76a	Web Design: Macromedia Flash	3.0
JRNL B1	Media and Society	3.0
COMS B76b	Web Design: Advanced Flash	1.5

Web Programming Emphasis -- Select 9 units from the following courses:

Course Number	Title	Units
COMS B10	Structured Program Design using Python	2.0
COMS B14	Introduction to Programming with Java	3.0
COMS B32	Programming with Visual Basic	3.0
COMS B34	SQL and Database Systems Design	3.0
COMS B75b	Web Programming: Active Server Pages	3.0
COMS B76a	Web Design: Macromedia Flash	3.0

Cross-Discipline Emphasis -- Select 9 units from the following courses:

Any combination of 9 units from the above elective classes.

**CONSTRUCTION**

**Construction Technology Certificate of Achievement**

*Total Units: 32*

Required Courses:

Course Number	Title	Units
ARCH B6	Materials of Construction	3.0
ARCH B55	Building Codes	3.0
CNST B1	Introduction to Construction	3.0
CNST B2	Blueprint Reading and Estimating	3.0
CNST B50a or CNST B50b or WEXP B249ab	Residential Construction Residential Construction Cooperative Work Experience Education	6.0
INDR B11	Introduction to Computer Aided Drafting and Design (CAD)	1.0
INDR B10	Introduction to Industrial Drawing and Graphics	1.0
INDT B10 or Equivalent	Occupational Readiness	3.0
WOOD B2	Furniture and Cabinetmaking	3.0

Electives:

Course Number	Title	Units
ARCH B56	Building and Related Codes	3.0
AUTO B1ab	Introduction to Automotive Technology	4.0
INDR B20a	Computer Aided Drafting and Design (CAD)	3.0
MATH B50	Modern College Arithmetic & Pre-Algebra	4.0
WELD B1a	Introduction to the Welding Process	1.5

**Note:** Students should consult with their counselors for best possible selections for their programs of study.

**Industrial Technology, Construction Option Associate in Science Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

*Total Units: 30*

Required Courses:

Course Number	Title	Units
ARCH B55	Building Codes	3.0
CNST B1	Introduction to Construction	3.0
CNST B2	Blueprint Reading and Estimating	3.0
INDR B10	Introduction to Industrial Drawing and Graphics	1.0
INDT B10 or Equivalent	Occupational Readiness	3.0
WEXP B249 or CNST B50a or CNST B50b	Cooperative Work Experience Education Residential Construction (6.0)	6.0
WOOD B2	Furniture and Cabinetmaking	3.0

Electives: to equal at least 30 units

Course Number	Title	Units
INDR B11	Introduction to Computer Aided Drafting and Design (CAD)	1.0
INDR B20a	Computer Aided Drafting and Design (CAD)	3.0
ARCH B56	Building and Related Codes	3.0
ARCH B6	Materials of Construction	3.0

**CORRECTIONAL ADMINISTRATION**

**Correctional Administration Associate in Arts Degree**

This program includes classes that will guide students toward careers in law enforcement, the courts and the law, and state, local, and private corrections. These courses have been endorsed by the Joint Apprenticeship Committee of the California Department of Corrections, California Youth Authority, and the California Correctional Peace Officers Association.

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

This program includes classes that will guide students toward careers in law enforcement and policing, the courts and the law, and state, local, and private corrections.

*Total Units: 24*

Required Courses:

Course Number	Title	Units
CRIM B21	Introduction to Correctional Administration	3.0
CRIM B50	Criminal Justice Report Writing	3.0
CRIM B60	Legal Aspects of Corrections	3.0
CRIM B2	Criminal Law	3.0
CRIM B12	Forensic and Scientific Aspects of Evidence	3.0
CRIM B55	Special Topics in Criminal Justice	3.0

Electives: at least 6 units

Course Number	Title	Units
CRIM B22	Institutional Supervision and Treatment of the Offender	3.0
CRIM B23	Fundamentals of Interviewing & Counseling	3.0
CRIM B24	Probation, Parole & Community Corrections	3.0
CRIM B5	Community Relations	3.0
CRIM B8	Criminal Investigation	3.0
CRIM B9	Juvenile Justice System	3.0

**CRIMINAL JUSTICE**

**Criminal Justice Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

This program includes classes that will guide students toward careers in law enforcement and policing, the courts and the law, and state, local, and private corrections.

*Total Units: 24*

Required Courses:

Course Number	Title	Units
CRIM B1	Introduction to Criminal Justice	3.0
CRIM B2	Criminal Law	3.0
CRIM B3	Introduction to Evidence	3.0
CRIM B4	Constitutional Criminal Procedure	3.0
CRIM B12	Forensic and Scientific Aspects of Evidence	3.0
CRIM B55	Special Topics in Criminal Justice	3.0

Electives: at least 6 units.

Course Number	Title	Units
CRIM B5	Community Relations	3.0
CRIM B8	Criminal Investigation	3.0
CRIM B9	Juvenile Justice System	3.0
CRIM B10	Organized Crime	3.0
CRIM B24	Probation, Parole & Community Corrections	3.0
CRIM B50	Criminal Justice Report Writing	3.0

**DIETETIC SERVICES**

*See Foods/Nutrition*

**DIGITAL ARTS**

**Digital Arts Certificate of Achievement**

The program is designed to prepare students for entry level positions in various graphic art fields such as advertising, graphic design, illustration, and digital imaging. The core learned disciplines are the principles of design, an understanding of the visual elements, exposure to art and

design history, conceptual visual problem solving, and the production of a graphic portfolio using established computer graphic software. Upon completion of the following courses with at least a “C” grade in each course, a student will be awarded a Digital Arts Certificate of Achievement.

Total Units: 27

Required Courses:

Course Number	Title	Units
ART B1 or ART B2 or ART B2ef	Art Appreciation Basic Drawing Figure Drawing	3.0 3.0 3.0
ART B3ab	Two Dimensional Design	3.0
ART B20	Introduction to Digital Arts	3.0
ART B21	Graphic Design	3.0
ART B22	Digital Illustration	3.0
ART B23	Advertising Design	3.0
ART B25	Typography	3.0

Electives: at least 3 units

Course Number	Title	Units
ART B16	Introduction to Digital Photography	3.0
ART B17ab	Elementary Photography	3.0
ART B24	Digital Imaging	3.0

**Digital Arts Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

Total Units: 18

Required Courses:

Course Number	Title	Units
ART B20	Introduction to Digital Arts	3.0
ART B21	Graphic Design	3.0
ART B22	Digital Illustration	3.0
ART B23	Advertising Design	3.0
ART B25	Typography	3.0

Electives: at least 3 units

Course Number	Title	Units
ART B2	Basic Drawing	3.0
ART B2ef	Figure Drawing	3.0
ART B3ab	Two Dimensional Design	3.0
ART B1 or ART B16	Art Appreciation Introduction to Digital Photography	3.0 3.0
ART B17ab	Elementary Photography	3.0
ART B24	Digital Imaging	3.0

**ECONOMICS**

**Economics Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

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.

Total Units: 19

Required Courses:

Course Number	Title	Units
ECON B1	Principles of Economics-Micro	3.0
ECON B2	Principles of Economics-Macro	3.0
MATH B2	Basic Functions and Calculus for Business	5.0
MATH B22	Elementary Probability and Statistics	5.0
COMS B2	Introduction to Computer Information Systems	3.0

Electives

Course Number	Title	Units
ENGL B1a	Expository Composition	4.0
PHIL B7	Introduction to Logic	3.0
HIST B17b	History of the U.S. Since 1877	3.0
POLS B1	American Government: National, State and local	3.0
PSYC B1a	General Psychology	3.0
BSAD B1	Financial Accounting	4.0
BSAD B2	Managerial Accounting	4.0
COMM B1	Public Speaking	3.0
MATH B23	Finite Mathematics	3.0

**ELECTRONICS TECHNOLOGY**

**Electronics Technology Certificate of Achievement**

Total Units: 34

Required Courses:

Course Number	Title	Units
ELET B1	Basic Electronics (DC and AC)	4.0
ELET B5	Programmable Logic Controllers	3.0
ELET B6	Analog and Digital Electronics	4.0
ELET B55a	Electric Motors-Controls	4.0
ELET B56	Instrumentation & Process Control	3.0
ELET B61	Telecommunications	3.0
ELET B62	Radio Communications	3.0
ELET B70	Mechanical Systems	3.0
INDT B10 or Equivalent	Occupational Readiness	3.0

Electives: at least 4 units

Course Number	Title	Units
ELET B4	Computer Integrated Manufacturing	3.0
ELET B63	Electronic Systems Installation	3.0
INDR B11	Introduction to Computer Aided Drafting and Design (CAD)	1.0
MFGT B1ab	Machine Tool Processes	3.0

**Industrial Technology, Electronics Option Associate in Science Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

Total Units: 35

## Required Courses:

Course Number	Title	Units
ELET B1	Basic Electronics (DC and AC)	4.0
ELET B5	Programmable Logic Controllers	3.0
ELET B6	Analog and Digital Electronics	4.0
ELET B55a	Electric Motors-Controls	4.0
ELET B56	Instrumentation & Process Control	3.0
ELET B61	Telecommunications	3.0
ELET B62	Radio Communications	3.0
ELET B70	Mechanical Systems	3.0
INDR B10 or equivalent	Occupational Readiness	3.0

## Electives: at least 4 units

Course Number	Title	Units
ELET B4	Computer Integrated Manufacturing	3.0
ELET B63	Electronic Systems Installation	3.0
INDR B11	Introduction to Computer Aided Drafting and Design (CAD)	1.0
MFGT B1ab	Machine Tool Processes	3.0

**EMERGENCY MEDICAL TECHNOLOGY****EMERGENCY MEDICAL TECHNICIAN-1 (EMT-1)**

The Emergency Medical Technician-1 (EMT-1) course consists of 152 hours, which includes 24 hours of emergency room/ambulance experience. The course prepares the student to perform basic emergency care as part of a mobile emergency team. It also provides the student with an understanding of the skills and assessment techniques needed to care for an ill or injured person in the pre-hospital setting. Upon successful completion of the course, students are eligible to take an examination for certification as an Emergency Medical Technician 1. EMT-1's are employed by ambulance companies and some private industries to provide emergency care in case of illness or injury. The course is required for ambulance personnel, the California Highway Patrol and many other first care providers. Students may later choose to become paramedics.

**ENROLLMENT**

Enroll through the Bakersfield College Admission and Records Office. The course is offered each fall and spring two evenings per week for 16 weeks. This is a 7.5 unit course.

**PRE-ADMISSION REQUIREMENT**

1. Each student must possess a current American Heart Association BLS -Healthcare Provider card. (Bakersfield College offers a BLS course (MEDS B52).
2. Each student must be at least 18 years of age by the completion date of the course.
3. Mandatory physical examination/immunizations and fit testing must be completed 4 weeks after start of the course. Costs of meeting health requirements are paid by the student. Failure to meet these requirements will result in student ineligibility for clinical rotations.
4. Completion of the 3 unit Medical Terminology Course (MEDS B60) is strongly recommended.

**PHYSICAL EXAMINATIONS, DRUG/ALCOHOL SCREENS, BACKGROUND SCREENING**

1. Physical examination: A physical examination completed by a physician of the student's choice is required when entering the Program to demonstrate that a student meets the technical standards necessary to meet the Program objectives. Appropriate immunizations and/or vaccinations are also required and are performed at the student's expense.
2. Drug/Alcohol Screen: As a condition of application in any Allied Health Program with a clinical laboratory component, students are required to submit to and pass a designated drug and alcohol screening. These screenings are performed at the student's expense.
3. Background Screening  
Every student offered space in the program will be required to submit to a background screening (at the student's expense) as part of his or her clinical requirements for admission. Please note the following:
  - A history of felony conviction(s) or any bar, exclusion or other ineligibility for federal program participation could render a student ineligible for clinical placement, as determined by the clinical agencies.
  - If a student cannot obtain background clearance from the clinical agencies, it will not be possible to place the student in the clinical areas, which is a required component of the program.
  - In the event that a student cannot obtain a background clearance, the space will be forfeited.
  - Students who are found to be ineligible for clinical placement by the clinical agency after admission to the nursing program shall be subject to dismissal from the program, as they will be unable to complete mandatory clinical rotations.

**LICENSURE/CERTIFICATION ELIGIBILITY**

Students with a misdemeanor and/or felony arrest conviction, either current or prior, may not receive certification or licensure from the State or County. Also, proof of citizenship (social security card and certified birth certificate) and fingerprinting are required by State certification/licensure agencies. Anyone who wishes clarification may contact the Kern County Emergency Medical Services Office at (661) 868-5200. Upon successful completion of the course, students will be eligible to sit for the National Registry EMT-Basic Examination (NREMT).

**ACCREDITATION AND PROGRAM APPROVAL**

Bakersfield College is accredited by the Western Association of Schools and Colleges. The Emergency Medical Technician (EMT) Program is approved by Kern County Emergency Medical Services and meets all State and County requirements.

**Emergency Medical Technician 1 (EMT-1) Job Skills Certificate**

This certificate complies with state requirements and ensures that the student has met the local EMS (Kern County

Authority) approval for county protocol training. It is also required for ambulance personnel and some other first care providers such as law enforcement and fire personnel. The certificate provides proof of successful completion of an approved EMT-1 program which is necessary for the student to take the national licensure exam. Students must complete the required course with at least a “B” grade.

Total Units: 7.5

Required Course:

Course Number	Title	Units
EMTC B50	Emergency Medical Technician I	7.5

## ENGINEERING

People working in the field of engineering and related technical fields “bridge the gap” between scientific principles and the application of these principles to the needs of society. The field is quite diversified with exciting job opportunities for people with varied mathematical, scientific, and technical skills.

An engineer uses experience and judgment, as well as advanced training in engineering, science, and mathematics to formulate ideas and designs, and to determine standards, specifications, work orders and schedules so that projects can be economically beneficial to mankind. A Bachelor of Science Degree in Engineering is required. Many engineers earn Master’s or Doctor’s degrees.

### Engineering Associate in Science Degree

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

Total Units: 47

Required Courses:

Course Number	Title	Units
*MATH B6a	Analytic Geometry & Calculus I	4.0
MATH B6b	Analytic Geometry & Calculus II	4.0
MATH B6c	Calculus III	4.0
MATH B6d	Ordinary Differential Equations	3.0
*CHEM B1a	General Chemistry	5.0
*PHYS B4a	Mechanics & Wave Motion	4.0
PHYS B4b	Heat, Electricity, & Magnetism	4.0
PHYS B4c	Optics & Modern Physics	4.0
ENGR B17	Introduction to Electric Circuits	3.0
ENGR B36	Engineering Mechanics-Statics	3.0
ENGR B45	Properties of Materials	3.0
ENGR B19C/C++	Computer Programming for Science, Engineering and Technology	3.0
**ENGR B47	Introduction to Engineering and Design	3.0

\* May be used to also fulfill general education requirements.

\*\*Meets student development requirement.

### University of California, California State University and Private Universities

Working together with a counselor or academic advisor, a student may develop a program of study leading to transfer into the upper division of a Bachelor’s Degree program in Engineering.

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. Four –year colleges and universities neither require, nor recommend, that engineering majors complete lower division general education requirements prior to transfer. Please check www.assist.org for complete transfer requirements. The following Bakersfield College courses satisfy the engineering core program:

Course Number	Title	Units
MATH B6a	Analytic Geometry & Calculus I	4.0
MATH B6b	Analytic Geometry & Calculus II	4.0
MATH B6c	Calculus III	4.0
MATH B6d	Ordinary Differential Equations	3.0
PHYS B4a	Mechanics & Wave Motion	4.0
PHYS B4b	Heat, Electricity & Magnetism	4.0
CHEM B1a	General Chemistry	5.0
ENGR B17	Introduction to Electric Circuits	3.0
ENGR B19C/C++	Computer Programming for Science Engineering & Technology	
ENGR B36	Engineering Mechanics – Statics	3.0
ENGR B45	Properties of Materials	3.0
ENGR B47	Introduction to Engineering & Design	3.0

The following technical electives may be required for particular engineering disciplines:

Course Number	Title	Units
MATH B6e	Elementary Linear Algebra	3.0
PHYS B4c	Optics & Modern Physics	4.0
INDR B10	Introduction to Industrial Drawing & Graphics	1.0
INDR B11	Introduction to Computer Aided Drafting & Design (CAD)	1.0
CHEM B1b	General Chemistry & Chemical Analysis	5.0
COMS B35	OOP and Data Structures with C++	3.0
ENGR B17L	Electric Circuit Laboratory	1.0
ENGR B24	Engineering Graphics & Descriptive Geometry	2.0
ENGR B37	Engineering Mechanics – Dynamics	3.0
ENGR B40	Surveying I	3.0
GEOL B10	Introduction to Geology	3.0
BIOL B3a	General Biology	5.0

The following general education courses may also be required for transfer:

ENGL B1a  
COMM B1, B2, or B8

PHIL B7 (CSU), PHIL B9, or ENGL B2  
(One) Arts or Humanities course

(One) Social and Behavioral Science course

### Engineering Technology Associate in Science Degree

Effective Fall 2009 all courses used for meeting the



requirements for degrees must be completed with a grade of “C” or better.

Cal Poly Pomona; California State University, Sacramento; California State University, Long Beach

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 (hands-on) 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. A beginning engineering technology student should have completed high school mathematics through intermediate algebra or MATH BD at Bakersfield College, one year of high school drafting, and be eligible for ENGL B50.

The following courses are required to satisfy the engineering technology core and Associate in Science program:

*Total Units: 40*

Required Courses:

Course Number	Title	Units
**ENGR B47	Introduction to Engineering and Design	3.0
ENGR B45	Properties of Materials	3.0
ENGR B24	Engineering Graphics and Descriptive Geometry	2.0
INDR B10	Introduction to Industrial Drawing & Graphics	1.0
INDR B11	Introduction to Computer Aided Drafting and Design (CAD)	1.0
*CHEM B2a	Introductory General Chemistry	4.0
*PHYS B2a	General Physics-Mechanics and Heat	4.0
PHYS B2b	General Physics-Sound, Light, Electricity, Magnetism, Modern Physics	4.0
*MATH B6ab	Analytic Geometry and Calculus	8.0

ENGR B19C/C++	Computer Programming for Science, Engineering and Technology (C)	3.0
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- \* May be used to also fulfill general education requirements
- \*\*Meets student development requirement

In addition, seven or more units from the following approved programs and/or subject areas are to be selected. See counselor or advisor for specific courses.

Electronics/Electrical Technology; Construction Technology; Manufacturing Processes Technology; Welding/Fabrication; Industrial Drawing and Graphics.

## 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 the writing course English B1a and may take a literature class to fulfill the humanities requirement. Students seeking a Baccalaureate Degree should take English B1a and may take English B1b and other literature courses to fulfill specific General Education requirements. Students planning to major in English should take English B1a and B1b and at least two of the following: English B5a, B5b, B20a, B20b, B30a, B30b. Students planning to transfer to the University of California should consider English B2. For specific information, students should consult the catalog of the school to which they intend to transfer.

### English Associate in Arts Degree

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

*Total Units: 18*

Required Courses:

Course Number	Title	Units
ENGL B1a	Expository Composition	4.0
ENGL B1b	Introduction to Types of Literature	3.0

Choose 6 units from the following:

Course Number	Title	Units
ENGL B5a	Survey of English Literature	3.0
ENGL B5b	Survey of English Literature	3.0
ENGL B30a	Survey of American Literature	3.0
ENGL B30b	Survey of American Literature	3.0

Electives: at least 5 units

ENGL B2	Advanced Composition & Critical Thinking	5.0
ENGL B10	Introduction to Shakespeare	3.0
ENGL B20a	Survey of World Literature	3.0
ENGL B21	African-American Literature	3.0
ENGL B23	Women’s Literature	3.0
ENGL B27	The Bible as Literature	3.0
ENGL B28	Classical Mythology	3.0

ENGL B35	Children’s Literature and Storytelling	3.0
ENGL B41a	Introduction to Creative Writing	3.0

**ENVIRONMENTAL HORTICULTURE**

See Agriculture

**FIRE TECHNOLOGY**

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.

**Fire Technology Certificate of Achievement**

*Total Units: 32*

Required Courses:

Course Number	Title	Units
FIRE B1	Fire Protection Organization	3.0
FIRE B2 or FIRE B7	Personal Fire Safety & Emergency Action Building Construction for Fire Protection	3.0
FIRE B3 or FIRE B51b	Fire Command, Strategy, Tactics Fire Command 1A (2.0)	3.0
FIRE B4	Fire Behavior and Combustion	3.0
FIRE B5 or FIRE B51d & FIRE B51e	Fire Prevention Technology Fire Prevention 1A (2.0) Fire Prevention 1B (2.0)	3.0
FIRE B6	Fire Protection Equipment & Systems	3.0
FIRE B72h	Emergency Medical Technician 1	4.0

Required General Education Courses:

*ENGL B50 or ENGL B1a	Introduction to College Composition Expository Composition	4.0
PSYC B1a or SOCI B1	General Psychology Introduction to Sociology	3.0
COMM B1 or COMM B2 or COMM B4 or COMM B8	Public Speaking Interpersonal Communication Persuasive Communication Small Group Communication	3.0

\*ENGL B60 may be substituted for ENGL B50 or ENGL B1a for Fire Technology Certificate of Achievement only.

Note: FIRE B1 and B2 are waived for students who have a minimum of 2 years service as a paid, full-time firefighter. 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.

**Fire Technology Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

*Total Units: 22*

Required Courses:

Course Number	Title	Units
FIRE B1	Fire Protection Organization	3.0
FIRE B2 or FIRE B7	Personal Fire Safety & Emergency Action Building Construction for Fire Protection	3.0
FIRE B3	Fire Command, Strategy, Tactics	3.0
FIRE B4	Fire Behavior and Combustion	3.0
FIRE B5	Fire Prevention Technology	3.0
FIRE B6	Fire Protection Equipment & Systems	3.0
FIRE B72h	Emergency Medical Technician 1	4.0

**Fire Technology Associate in Science Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

*Total Units: 32*

Required Courses:

Course Number	Title	Units
FIRE B1	Fire Protection Organization	3.0
FIRE B2 or FIRE B7	Personal Fire Safety & Emergency Action Building Construction for Fire Protection	3.0
FIRE B3	Fire Command, Strategy, Tactics	3.0
FIRE B4	Fire Behavior and Combustion	3.0
FIRE B5	Fire Prevention Technology	3.0
FIRE B6	Fire Protection Equipment & Systems	3.0
FIRE B72h	Emergency Medical Technician 1	4.0
FIRE B51a	Fire Management 1A	2.0
FIRE B51b	Fire Command 1A	2.0
FIRE B51d	Fire Prevention 1A	2.0
*FIRE B51c and	Fire Command 1B	2.0
*FIRE B51e or	Fire Prevention 1B	2.0
WEXP B248 or	Cooperative Work Experience	4.0
WEXP B249	Cooperative Work Experience (4.0)	

\*Note: Students may substitute up to 4 units of work experience credit in place of FIRE B51c and/or FIRE B51e.

**Wildland Fire Technology Associate in Science Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

*Total Units: 30*

Required Courses:

Course Number	Title	Units
FIRE B25a	Wildland Fire Behavior	3.0
FIRE B25b	Wildland Firefighter Safety & Survival	3.0
FIRE B25c	Wildland Fire Operations	3.0
FIRE B25d	Wildland Public Information Officer, Prevention, & Investigation	3.0
FIRE B25e	Wildland Fire Logistics, Finance, & Planning	3.0

Electives: at least 15 units

FIRE B25f	Wildland Firefighter	4.0
FIRE B25g	Wildland Engine Firefighter	3.0
FIRE B25h	Wildland Fire Dispatching	3.0

FIRE B26a	Initial Attack Incident Commander Type 4 (ICT4) (S-200)	1.0
FIRE B26d	Interagency Incident Business Management (S-260)	1.0
FIRE B26e	Fire Operations in the Wildland Urban Interface (S-215)	1.5
FIRE B26g	Crew Boss (S-230)	1.5
FIRE B26k	Field Observer (S-244)	1.0
FIRE B26m	Display Processor (S-245)	0.5
FIRE B27a	Basic Incident Command System (I-200)	1.0
FIRE B27b	I-300 Intermediate Incident Command System (I-300)	1.5
FIRE B28b	L-280 Followership to Leadership	0.5

**Chief Officer Certification (Nfpa Standard 1021) Certificate of Achievement**

Total Units: 22

Required Courses:

Course Number	Title	Units
FIRE B50a	Fire Command 2-Command Tactics at Major Fires	2.0
FIRE B50b	Fire Command 2b-Scene Management at Major Incidents	2.0
FIRE B50c	Fire Command 2c-High-Rise Fire Tactics	2.0
FIRE B50d	Fire Command 2d-Management of Large-Scale Disasters	2.0
FIRE B50e	Fire Command 2e-Wildland Fire Tactics	2.0
FIRE B50f	Fire Management 2a-Organizational Development and Human Relations	2.0
FIRE B50g	Fire Management 2b-Finance and Business Management for Chief Officers	2.0
FIRE B50h*	Fire Management 2c-Computer Application for the Fire Service	2.0
FIRE B50i	Fire Management 2d-Master Planning	2.0
FIRE B50j	Fire Management 2e-Staff Assignments and Line Functions	2.0
FIRE B50k*	Fire Investigation	2.0

\*Courses are offered from State Fire Marshall's Office only.

**Fire Officer Certification (Nfpa Standard 1021) Certificate of Achievement**

Total Units: 18

Required Courses:

Course Number	Title	Units
FIRE B51a	Fire Management 1a	2.0
FIRE B51b	Fire Command 1a	2.0
FIRE B51c	Fire Command 1b	2.0
FIRE B51d	Fire Prevention 1a	2.0
FIRE B51e	Fire Prevention 1b	2.0
FIRE B51f	Fire Investigation 1a	2.0
FIRE B51g	Fire Instructor 1a	2.0
FIRE B51h	Fire Instructor 1b	2.0
FIRE B51i	Fire Prevention 1c	2.0

**FOODS/NUTRITION**

**Child Nutrition Management Certificate of Achievement**

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 24 units from the courses listed below with a minimum grade of "C" in all required courses. The Professional Management Development Program is also available from the National Restaurant Association.

Total Units: 24

Required Courses:

Course Number	Title	Units
FDSV B50	Introduction to the Foodservice Industry	2.0
FDSV B52	Foodservice Sanitation and Safety	2.0
or		
FDSV B55a & FDSV B55c & NUTR B10	Foodservice Production Theory I (2.5) Foodservice Production Laboratory I (2.0) Elementary Nutrition	3.0
WEXP B248ab or WEXP B249ab	Cooperative Work Experience Education	2.0
ENGL	English Course	3.0
COMS	Computer Studies Course	1.0-3.0

Electives: to equal at least 24 units

Course Number	Title	Units
FDSV B55a	Foodservice Production Theory I	2.5
FDSV B55b	Foodservice Production Theory II	2.5
FDSV B55c	Foodservice Production Laboratory I	2.0
FDSV B55d	Foodservice Production Laboratory II	2.0
FDSV B59	Foodservice Production Management	3.0
FDSV B70	Topics in Foodservice and Nutrition	.5-1.0

**Child Nutrition Program Management Option Associate in Science Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

Total Units: 30

Required Courses:

Course Number	Title	Units
FDSV B50	Introduction to the Foodservice Industry	2.0
FDSV B52	Foodservice Sanitation and Safety	2.0
FDSV B55a	Foodservice Production Theory I	2.5
FDSV B55c	Foodservice Production Laboratory I	2.0
NUTR B10	Elementary Nutrition	3.0
WEXP B248ab or WEXP B249ab	Cooperative Work Experience Education	2.0
COMS	Computer Studies Course	1.0-3.0

Electives: to equal at least 30 units

Course Number	Title	Units
FDSV B55b	Foodservice Production Theory II	2.5
FDSV B55d	Foodservice Production Laboratory II	2.0
FDSV B59	Foodservice Production Management	3.0
FDSV B60	Cost Control	3.0
FDSV B70	Topics in Foodservice and Nutrition	.5-1.0

**Culinary Arts Certificate of Achievement**

Program emphasizes quality food production and service in commercial and institutional food service 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 24.5 units from the courses listed below with a minimum grade of “C” in all required courses. The Professional Management Development Program is also available from the National Restaurant Association. students will be issued a Servsafe certificate.

Total Units: 24.5

Required Courses:

Successful completion of the Servsafe exam and:

Course Number	Title	Units
FDSV B50	Introduction to the Foodservice Industry	2.0
FDSV B51	Food & Nutrition Orientation	0.5
FDSV B52	Foodservice Sanitation and Safety	2.0
FDSV B55a	Foodservice Production Theory I	2.5
FDSV B55b	Foodservice Production Theory II	2.5
FDSV B55c	Foodservice Production Laboratory I	2.0
FDSV B55d	Foodservice Production Laboratory II	2.0
FDSV B55f	Fundamentals of Baking	2.0
FDSV B55i	Food and Nutrition Internship	1.0
FDSV B59	Food Service Production Management	3.0
NUTR B10	Elementary Nutrition	3.0
WEXP B248	Cooperative Work Experience Education	2.0

**Culinary Arts Associate in Science Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

Total Units: 27.5

Required Courses:

Successful completion of the Servsafe exam and:

Course Number	Title	Units
FDSV B50	Introduction to the Foodservice Industry	2.0
FDSV B51	Food and Nutrition Orientation	0.5
FDSV B52	Foodservice Sanitation and Safety	2.0
FDSV B55a	Foodservice Production Theory I	2.5
FDSV B55b	Foodservice Production Theory II	2.5
FDSV B55c	Foodservice Production Laboratory I	2.0
FDSV B55d	Foodservice Production Laboratory II	2.0
FDSV B55e	Advanced Foodservice Practicum	3.0
FDSV B55f	Fundamentals of Baking	2.0
FDSV B55i	Food and Nutrition Internship	1.0
FDSV B59	Foodservice Production Management	3.0
NUTR B10	Elementary Nutrition	3.0
WEXP B248ab	Cooperative Work Experience Education	2.0

**Dietetic Services Program Certificate of Achievement**

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 18.5 units from the courses listed below with a minimum grade of “C” in all required courses.

The Professional Management Development Program is also available from the National Restaurant Association.

Total Units: 18.5

Required Courses:

Successful completion of the Servsafe exam and:

Course Number	Title	Units
FDSV B50	Introduction to the Foodservice Industry	2.0
FDSV B52	Foodservice Sanitation and Safety	2.0
FDSV B55a	Foodservice Production Theory I	2.5
FDSV B55c	Foodservice Production Laboratory I	2.0
FDSV B59	Foodservice Production Management	3.0
NUTR B10	Elementary Nutrition	3.0
NUTR B50	Modified Diets	2.0
FDSV B64a	Dietetic Service Supervisor Practicum	2.0

**Foodservice Management Option Associate in Science Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of

Total Units: 29.5

Required Courses:

Successful completion of the Servsafe exam and:

Course Number	Title	Units
FDSV B50	Introduction to the Foodservice Industry	2.0
FDSV B51	Food & Nutrition Orientation	0.5
FDSV B52	Foodservice Sanitation and Safety	2.0
FDSV B55a	Foodservice Production Theory I	2.5
FDSV B55b	Foodservice Production Theory II	2.5
FDSV B55c	Foodservice Production Laboratory I	2.0
FDSV B55e	Advanced Foodservice Practicum	3.0
FDSV B55i	Food and Nutrition Internship	1.0
FDSV B59	Foodservice Production Management	3.0
NUTR B10	Elementary Nutrition	3.0
WEXP B248	Cooperative Work Experience Education	2.0
BSAD B53a	Introduction to Accounting I	3.0
SPST B201L	Special Projects and Studies	3.0

**FORESTRY**

See Agriculture

**FRENCH**

**French Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

Total Units: 20

Required Courses:

Course Number	Title	Units
FREN B1	Elementary French	5.0
FREN B2	Elementary French	4.0
FREN B3	Intermediate French	4.0
FREN B4	Intermediate French	4.0
COMM B1	Public Speaking	3.0

**GEOLOGY**

**Geology Associate in Science Degree**

The major in geology is appropriate for students interested

in the natural science who desire to be employable within the local petroleum industry as a geo-tech, or who plan to transfer to a 4-year university with a major in geology. The major is designed to provide students with complete general education in math and science, a well-rounded introduction to physical and historical geology, as well as an introduction to some basic engineering skills.

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

*Total Units: 33*

Required Courses:

Course Number	Title	Units
GEOL B10	Introduction to Geology	3.0
GEOL B10L	Introduction to Geology Laboratory	1.0
GEOL B11	Historical Geology	3.0
GEOL B11L	Historical Geology Laboratory	1.0
GEOL	Electives	3.0
CHEM B1a or CHEM B2a	General Chemistry Introductory General Chemistry (4.0)	5.0
INDR B10	Introduction to Industrial Drawing & Graphics	1.0
MATH B1b	Precalculus II	4.0
MATH BD	Intermediate Algebra	5.0
COMS B37	Introduction to Geographic Information Systems (GIS)	3.0
PHYS B2a	General Physics-Mechanics & Heat	4.0

*Suggested Program for Geology A.S. Degree*

*First Semester*

Course Number	Title	Units
GEOL B10	Introduction to Geology	3.0
GEOL B10L	Introduction to Geology Laboratory	1.0
INDR B10	Introduction to Industrial Drawing & Graphics	1.0
MATH BD	Intermediate Algebra	5.0

*Second Semester*

Course Number	Title	Units
MATH B1b	Precalculus II	4.0
GEOL	Elective	3.0

*Third Semester*

Course Number	Title	Units
CHEM B2a	Introductory General Chemistry	4.0
COMS B37	Introduction to Geographic Information Systems (GIS)	3.0

*Fourth Semester*

Course Number	Title	Units
PHYS B2a	General Physics-Mechanics & Heat	4.0
GEOL B11	Historical Geology	3.0
and GEOL B11L	Historical Geology Laboratory	1.0

*Suggested Electives*

Course Number	Title	Units
ACDV B5	Tutor Training and Practicum	2.0
ANTH B3	Introduction To Archaeology	3.0
ART B3cd	Three Dimensional Design	3.0

BSAD B5	Human Relations/People Skills	3.0
GEOL B12	Geology of California	3.0
GEOL B21	Topics in Geology	1-3.0
GEOL B35a	Rocks and Minerals	1.0
GEOL B35b	Geology of Kern County	1.0

### Suggested Transfer 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 wants to transfer.

### UCLA

Course Number	Title	Units
CHEM B1a	General Chemistry	5.0
CHEM B1b	General Chemistry & Chemical Analysis	5.0
MATH B6a	Analytic Geometry & Calculus I	4.0
MATH B6b	Analytic Geometry & Calculus II	4.0
PHYS B2a	General Physics-Mechanics & Heat	4.0
PHYS B2b	General Physics-Sound, Light, Electricity, Magnetism, Modern Physics	4.0
BIOL B3a	General Biology I	5.0
BIOL B3b	General Biology II	5.0

### San Diego State University

Course Number	Title	Units
GEOL B10	Introduction to Geology	3.0
GEOL B10L	Geology Laboratory	1.0
CHEM B1a	General Chemistry	5.0
CHEM B1b	General Chemistry & Chemical Analysis	5.0
BIOL B11	Concepts of Biology	4.0
MATH B6a	Analytic Geometry & Calculus I	4.0

*Recommended Courses*

Course Number	Title	Units
INDR B10	Introduction to Industrial Drawing & Graphics	1.0
MATH B6b	Analytic Geometry & Calculus II	4.0

### 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. Many employers value the writing and thinking skills acquired by History majors. The knowledge gained in history is fundamental for an understanding of many of the other fields of learning.

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 core requirements.

### History Associate in Arts Degree

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

Total Units: 18

Required Courses:

Course Number	Title	Units
HIST B4ab or HIST B1 and HIST B2	European Civilization World History from the Origins of Civilizations to 1500 (3.0) History of the World Since 1500 (3.0)	6.0

AND one of the following:

Course Number	Title	Units
HIST B17ab	History of the U.S.	6.0
HIST B20ab	African American History of the United States	6.0
HIST B30ab	Chicano History	6.0

AND any two of the following courses:

Course Number	Title	Units
ECON B2	Principles of Economics-Macro	3.0
HIST B25	Introduction to Women in American History	3.0
HIST B18	History of California	3.0
HIST B36	History of Native American Indians	3.0
GEOG B1	Introduction to Geography: Physical Elements	3.0
POLS B1	American Government: National, State and local	3.0
POLS B2	Comparative Government	3.0
POLS B3	International Politics	3.0
SOCI B1	Introduction to Sociology	3.0
HIST B3	Modern Global Societies	3.0
HIST B33	Latin American History	3.0
HIST B15	Civilizations of the Middle East	3.0

Recommended Courses

Course Number	Title	Units
ENGL B2	Advanced Composition and Critical Thinking	5.0
PHIL B6a	Introduction to Philosophy	3.0
PSYC B1a	General Psychology	3.0
ANTH B2	Cultural Anthropology	3.0

**HORTICULTURE**

*See Agriculture*

**HUMAN SERVICES**

**Human Services Job Skills Certificate**

The Human Service certificate emphasizes classroom instruction as well as hands-on-experience through interning with community Human Services agencies. The field of Human Services is very broad. It is concerned with meeting human needs and improving the overall quality of people's lives. The field is interdisciplinary, meaning that knowledge from a variety of other fields of study is applied to the overall goal of helping people.

Upon completion of the following courses with at least a "C" grade in each course, the student will be awarded a Human Services Job Skills Certificate.

Total Units: 15

Required Courses:

Course Number	Title	Units
COMS B5	Introduction to Microcomputer Applications using Microsoft Office 2007	3.0
ENGL B50	Introduction to College Composition	4.0
HMSV B40	Introduction to Human Services	3.0
HMSV B5	Human Services Internship	2.0
SOCI B1	Introduction to Sociology	3.0

**Human Services Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

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.

Total Units: 19

Required Courses:

Course Number	Title	Units
HMSV B40	Introduction to Human Services	3.0
SOCI B1	Introduction to Sociology	3.0
SOCI B45	Minority Relations	3.0
PSYC B1a	General Psychology	3.0
PSYC B40 or CHDV B21	Child Psychology and Development Child Growth and Development: Birth Through Adolescence	3.0

Any combination of four units from the following course is required. Note: All units must be completed in agencies where assignment and supervision is approved by the Program Coordinator. Students wishing to enroll in HMSV B5 must have completed HMSV B40. A maximum of 2 units of internship are permitted in a given semester.

Course Number	Title	Units
HMSV B5	Human Services Internship	4.0

**Human Services Associate in Science Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

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.

Total Units: 30

Required Courses:

Course Number	Title	Units
HMSV B40	Introduction to Human Services	3.0
SOCI B1	Introduction to Sociology	3.0
SOCI B45	Minority Relations	3.0
PSYC B1a	General Psychology	3.0

PSYC B40 or CHDV B21	Child Psychology and Development Child Growth and Development: Birth Through Adolescence	3.0
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Any combination of four units from the following course is required. Note: All units must be completed in agencies where assignment and supervision is approved by the Program Coordinator. Students wishing to enroll in HMSV B5 must have completed HMSV B40. A maximum of 2 units of internship are permitted in a given semester.

Course Number	Title	Units
HMSV B5	Human Services Internship	4.0

Electives: at least 11 units

Course Number	Title	Units
ANTH B1	Physical Anthropology	3.0
ANTH B2	Cultural Anthropology	3.0
ANTH B5	North American Indians	3.0
PSYC B1b	Biological Psychology	3.0
PSYC B2	Interpersonal & Group Process Skills for the Helping Occupations	3.0

PSYC B5	Elementary Statistics for the Behavioral and Social Sciences	5.0
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PSYC B20 or SOC B20	Social Psychology	3.0
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PSYC B30	Human Sexuality	3.0
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PSYC B33	Personal and Social Adjustment	3.0
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PSYC B45	Behavior Modification	3.0
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HMSV B5	Human Services Internship	1.4-0
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SOCI B2	Problems of Modern Society	3.0
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SOCI B10	Topics in Sociology	0.5-2.0
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SOCI B28	Women in the World	3.0
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SOCI B36	Sociology of the Chicano	3.0
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COMS B2 or	Introduction to Computer Information Systems	3.0
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COMS B52a or	Introduction to the Microcomputer and Windows (1.5)	
	Any computer related course	

SPAN B1ab	Elementary Spanish	5.0
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COMS B2 and COMS B5 are recommended for the Human Services Program, but a maximum of 3 units of any computer-related course(s) needed for a specific career application will be accepted.

## INDUSTRIAL DRAWING

### AutoCAD Job Skills Certificate

This certificate covers the principles of industrial drawing/CAD with the emphasis on using the AutoCAD software package from basic 2D principles through 3D solid modeling to obtain graphic solutions, design refinements, modifications and delineations. Software customization is also emphasized.

Upon completion of the following courses with at least a "C" grade in each course, the student will be awarded an AutoCAD Job Skills Certificate.

*Total Units: 8*

### Required Courses:

Course Number	Title	Units
INDR B10	Introduction to Industrial Drawing and Graphics	1.0
INDR B11	Introduction to Computer Aided Drafting and Design (CAD)	1.0
INDR B20a	Computer Aided Drafting and Design (CAD)	3.0
INDR B20b	Computer Aided Drafting and Design (CAD)	3.0

### Industrial Drawing Associate in Arts Degree

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

*Total Units: 20*

### Required Courses:

Course Number	Title	Units
INDR B10	Introduction to Industrial Drawing and Graphics	1.0
INDR B11	Introduction to Computer Aided Drafting and Design (CAD)	1.0
INDR B20a	Computer Aided Drafting and Design (CAD)	3.0
INDR B50	Process Piping	3.0
INDR B51	Electrical Design	3.0
INDR B52	Geographic Information Systems (GIS)	3.0
INDR B40	Parametric Modeling Fundamentals	3.0

Electives: at least 3 units

Course Number	Title	Units
ARCH B16	Digital Tools for Graphics Communication	3.0
INDR B20b	Computer Aided Drafting and Design (CAD)	3.0

### Industrial Technology, Industrial Drawing Option Associate in Science Degree

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

*Total Units: 30*

### Required Courses:

Course Number	Title	Units
INDR B10	Introduction to Industrial Drawing and Graphics	1.0
INDR B11	Introduction to Computer Aided Drafting and Design (CAD)	1.0
INDR B20a	Computer Aided Drafting and Design (CAD)	3.0
INDR B20b	Computer Aided Drafting and Design (CAD)	3.0
INDR B40	Parametric Modeling Fundamentals	3.0
INDR B50	Process Piping	3.0
MATH BD	Intermediate Algebra	5.0
INDR B51	Electrical Design	3.0
INDR B52	Geographic Information Systems (GIS)	3.0
MFGT B1ab or WOOD B2	Machine Tool Processes Furniture and Cabinetmaking	3.0
COMS B5	Introduction to Microcomputer Applications using Microsoft Office 2007	3.0

Electives:

Course Number	Title	Units
ENGR B24	Engineering Graphics and Descriptive Geometry	2.0
WELD B1a	Introduction to Oxygen Acetylene Welding and Cutting	1.5
WELD B1b	Introduction to the Welding Processes	1.5

INDT B10	Occupational Readiness	3.0
WELD B1a	Introduction to Oxygen Acetylene Welding and Cutting	1.5
WELD B1b	Introduction to the Welding Processes	1.5
Electives: at least 3 units		
Course Number	Title	Units
INDR B20b	Computer Aided Drafting and Design (CAD)	3.0
MFGT B2	Lathe Programming	3.0
WOOD B2	Furniture and Cabinetmaking	3.0
AUTO B1ab	Introduction to Automotive Technology	4.0
CNST B1	Introduction to Construction	3.0
COMS B5	Introduction to Microcomputer Applications using Microsoft Office 2007	3.0
STDV B51	Job Search Strategies	1.0

**Suggested Program for Industrial Technology Industrial Drawing Option Associate in Science Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

*First Semester*

Course Number	Title	Units
INDR B10	Introduction to Industrial Drawing and Graphics	1.0
INDR B11	Introduction to Computer Aided Drafting and Design (CAD)	1.0
MATH BD	Intermediate Algebra	5.0

*Second Semester*

Course Number	Title	Units
INDR B20a	Computer Aided Drafting and Design (CAD)	3.0
MATH BD	Intermediate Algebra	5.0
INDR B50 or INDR B52	Process Piping Geographic Information Systems (GIS)	3.0

*Third Semester*

Course Number	Title	Units
INDR B50 or INDR B52	Process Piping Geographic Information Systems (GIS)	3.0
INDR B51	Electrical Design	3.0

*Fourth Semester*

Course Number	Title	Units
COMS B5	Introduction to Microcomputer Applications using Microsoft Office 2007 General Education	3.0
INDR B40	Parametric Modeling Fundamentals	3.0

**INDUSTRIAL TECHNOLOGY**

**Industrial Technology (General) Associate in Science Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

*Total Units: 30*

Required Courses:

Course Number	Title	Units
MFGT B1ab	Machine Tool Processes	3.0
ELET B1	Basic Electronics (DC and AC)	4.0
INDR B10	Introduction to Industrial Drawing and Graphics	1.0
INDR B11	Introduction to Computer Aided Drafting and Design (CAD)	1.0
INDR B20a	Computer Aided Drafting and Design (CAD)	3.0

**JOURNALISM**

**Journalism Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

Designed to provide training for entry into newspaper and magazine journalism and photojournalism.

*Total Units: 18*

Required Courses:

Course Number	Title	Units
JRNL B1	Media and Society	3.0
JRNL B2	Beginning Reporting	3.0
JRNL B15	Press Photography	3.0
JRNL B16	Multimedia Reporting	3.0
Select 6 units from the following courses:		
JRNL B27a	Newspaper Production/Reporters	3-6.0
JRNL B27e	Newspaper Production/Photographers	3-6.0
JRNL B26	Newspaper Production/Editors	4.0

**LIBERAL ARTS**

**Liberal Arts Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

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. The major is intended to provide general knowledge and to develop the intellectual capacities, such as reasoning and judgment, as opposed to professional or vocational skills. 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. Students may satisfy requirements for the Liberal Arts major by completing one of the two options listed below. With any option selected, students must also complete all graduation



requirements for Bakersfield College including a total of 60 degree applicable units with an overall grade point average of 2.00.

Select one of the following options:

1. Option One.
  - a. Complete the Intersegmental General Education Transfer Curriculum (IGETC) with a "C" GPA.
  - b. Complete at least 18 units from recommended lower division major preparation for the major at the approved university of your choice with a "C" grade in each course.
  - c. UC transferable elective units, if needed, to total 60 units.

OR

2. Option Two.
  - a. Complete CSU General Education Breadth with a "C" GPA.
  - b. Complete at least 18 units from recommended lower division major preparation for the major at the approved university of your choice with a "C" grade in each course.
  - c. CSU transferable elective units, if needed, to total 60 units.

## LIBERAL STUDIES

### Liberal Studies Associate in Arts Degree

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

Courses listed are based on information available at the time of publication of this catalog for the Liberal Studies Major Credential Track at CSU Bakersfield and are intended for students who plan to obtain a multiple subjects teaching credential. Students are advised to see a counselor for the most current requirements for a Liberal Studies major at CSU Bakersfield. Students transferring to other colleges or universities are advised to consult the catalog of the school they plan to attend. This degree is articulated directly with CSU Bakersfield and may not be applicable to any other CSU.

Total Units: 18

Select 18 units from the courses in Areas One through Ten:

#### AREA One: Language

Course Number	Title	Units
ENGL B1a	Expository Composition	4.0
ENGL B1b or ENGL B10	Introduction to Types of Literature	3.0
ENGL B21 or ENGL B23 or ENGL B30a or ENGL B30b or ENGL B35	Introduction to Shakespeare	
	African American Literature	
	Women's Literature	
	Survey of American Literature	
	Survey of American Literature	
	Children's Literature and Storytelling	
COMM B1	Public Speaking	3.0

#### AREA Two: Mathematics

Course Number	Title	Units
MATH B4a	Mathematics for Elementary School Teaching I	5.0

#### AREA Three: Sciences

Course Number	Title	Units
BIOL B11	Concepts of Biology	4.0
PHSC B12	General Physical Science	4.0
ERSC B10	Introduction to Earth Science	3.0
ERSC B10L	Earth Science Laboratory	1.0

#### AREA Four: Humanities and Social Sciences

Course Number	Title	Units
HIST B17a	History of the United States	3.0
POLS B1	American Government: National, State, and Local	3.0
HIST B18	History of California	3.0
HIST B1	World History from the Origins of Civilizations to 1500	3.0
GEOG B2	Human Geography	3.0
PHIL B7 or PHIL B9 or COMM B5	Introduction to Logic	3.0
	Critical Thinking and Advanced Composition (4)	
	Rhetoric and Argumentation	

#### AREA Five: Visual and Performing Arts

Course Number	Title	Units
ART B1 or ART B2 or ART B35 or ART B36 or MUSC B2 or MUSC B22 or THEA B1 or THEA B20	Art Appreciation	3.0
	Basic Drawing	
	Survey of World Art I	
	Survey of World Art II	
	Basic Elements of Music	
	Music Appreciation	
	Introduction to Acting	
	A Survey of Theatre and the Roots of Entertainment	

#### AREA Six: Health and Physical Education

Course Number	Title	Units
HLED B1	Principles of Health Education	3.0

#### AREA Seven: Human Development

Course Number	Title	Units
*PSYC B1a or PSYC B40 or CHDV B21	General Psychology	3.0
	Child Psychology & Development	3.0
	Child Growth & Development: Birth through Adolescence	3.0

#### AREA Eight: Ethnic, Gender, Cultural and Handicapped Perspectives

No course articulated.

#### AREA Nine: Introductory Field Experience and Technology

Course Number	Title	Units
EDUC B24	Early Field Experience for Elementary Teachers	2.5
COMS B2 or	Introduction to Computer Information Systems	3.0

COMS B3 or	Computer Concepts & Survival Skills
COMS B5	Introduction to Microcomputer Applications using Microsoft Office 2007

Electives: at least 6 units		
Course Number	Title	Units
ELET	Electives	6.0

**MANAGEMENT**

*See Business Administration*

**MANUFACTURING/MACHINE TECHNOLOGY**

**Basic Machine Tool Operations-Lathe, Mill Job Skills Certificate**

This certificate covers the principles of machine tool technology to include the use of precision measuring, drilling machines, saws, lathes and milling machines.

Upon completion of the following courses with at least a "C" grade in each course, the student will be awarded a Basic Machine Tool Operations-Lathe, Mill Job Skills Certificate.

*Total Units: 3*

Required Courses:

Course Number	Title	Units
MFGT B1a	Machine Tool Processes	1.5
MFGT B1b	Machine Tool Processes	1.5

**Computer Numerical Control Programming Job Skills Certificate**

This certificate covers the principles of set-up, operation and programming of computer numerical control (CNC) lathes and milling machines.

Upon completion of the following courses with at least a "C" grade in each course, the student will be awarded a Computer Numerical Control Programming Job Skills Certificate.

*Total Units: 6*

Required Courses:

Course Number	Title	Units
MFGT B2	Lathe Programming	3.0
MFGT B3	Mill Programming	3.0

**Control Systems Technology Certificate of Achievement**

*Total Units: 31*

Required Courses:

Course Number	Title	Units
COMS B5	Introduction to Microcomputer Applications using Microsoft Office 2007	3.0
INDR B10	Introduction to Industrial Drawing and Graphics	1.0
INDR B11	Introduction to Computer Aided Drafting & Design (CAD)	1.0
INDT B10	Occupational Readiness	3.0
ELET B5	Programmable Logic Controllers	3.0
TECM B52	Introduction to Technical Mathematics	3.0
ELET B1	Basic Electronics (DC and AC)	4.0
ELET B55a	Electric Motors -- Controls	4.0
ELET B56	Instrumentation and Process Control	3.0

**Industrial Technology, Control Systems Technology Associate in Science Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

*Total Units: 28*

Required Courses:

Course Number	Title	Units
COMS B5	Introduction to Microcomputer Applications using Microsoft Office 2007	3.0
INDR B10	Introduction to Industrial Drawing and Graphics	1.0
INDR B11	Introduction to Computer Aided Drafting & Design (CAD)	1.0
INDT B10	Occupational Readiness	3.0
ELET B5	Programmable Logic Controllers	3.0
TECM B52	Introduction to Technical Mathematics	3.0
ELET B1	Basic Electronics (DC and AC)	4.0
ELET B55a	Electric Motors -- Controls	4.0
ELET B56	Instrumentation and Process Control	3.0
COMS B82	MCSE/CNE Networking Technologies - Network+	3.0

**Manufacturing Technology Certificate of Achievement**

*Total Units: 30*

Required Courses:

Course Number	Title	Units
MFGT B1a	Machine Tool Processes	1.5
MFGT B1b	Machine Tool Processes	1.5
MFGT B2	Lathe Programming	3.0
MFGT B3	Mill Programming	3.0
INDR B10	Introduction to Industrial Drawing and Graphics	1.0
INDR B11	Introduction to Computer Aided Drafting and Design (CAD)	1.0
TECM B52 or MATH BA or equivalent	Introduction to Technical Mathematics Elementary Algebra	3.0
INDT B10 or equivalent	Occupational Readiness	3.0
WELD B1a	Introduction to Oxygen Acetylene Welding and Cutting	1.5
WELD B1b	Introduction to the Welding Processes	1.5
WELD B54a	Blueprint Reading for Welders and Machinists	3.0

Electives: at least 7 units

Course Number	Title	Units
INDR B20a	Computer Aided Drafting and Design	3.0
INDR B40	Parametric Modeling Fundamentals	3.0
INDT B273	Special Problems in Machine Tool Metal Working	2-3.0
WELD B74a	Introduction to GMAW (Gas Metal Arc Welding) and FCAW (Flux Core Arc Welding)	1.5

WELD B74b	Introduction to GTAW (Gas Tungsten Arc Welding)	1.5
WEXP B249	Cooperative Work Experience Education	1.0

**Industrial Technology, Manufacturing Technology  
Option Associate in Science Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

*Total Units: 27*

Required Courses:

Course Number	Title	Units
MFGT B1a	Machine Tool Processes	1.5
MFGT B1b	Machine Tool Processes	1.5
MFGT B2	Lathe Programming	3.0
MFGT B3	Mill Programming	3.0
INDR B10	Introduction to Industrial Drawing and Graphics	1.0
INDR B11	Introduction to Computer Aided Drafting and Design (CAD)	1.0
TECM B52 or equivalent	Introduction to Technical Mathematics	3.0
WELD B1a	Introduction to Oxygen Acetylene Welding and Cutting	1.5
WELD B1b	Introduction to the Welding Processes	1.5
WELD B54a	Blueprint Reading for Welders and Machinists	3.0

Electives: at least 3 units

Course Number	Title	Units
INDR B20a	Computer Aided Drafting and Design (CAD)	3.0
INDR B40	Parametric Modeling Fundamentals	3.0
INDT B273	Special Problems in Tool Metal Working	2-3.0
WELD B53ab	Shielded Metal Arc Welding	3.0
WELD B74a	Introduction to GMAW (Gas Metal Arc Welding) and FCAW (Flux Core Arc Welding)	1.5
WELD B74b	Introduction to GTAW (Gas Tungsten Arc Welding)	1.5
WEXP B249	Cooperative Work Experience Education	1.0

**MARKETING**

*See Business Administration*

**MATHEMATICS**

**Mathematics Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

*Total Units: 18*

Required Courses:

Course Number	Title	Units
MATH B6a	Analytic Geometry and Calculus I	4.0
MATH B6b	Analytic Geometry and Calculus II	4.0
MATH B6c	Calculus III	4.0
MATH B6d	Ordinary Differential Equations	3.0
MATH B6e	Elementary Linear Algebra	3.0

Recommended Courses

Course Number	Title	Units
PHIL B7	Introduction to Logic	3.0
PHYS B4a	Mechanics and Wave Motion	4.0
ENGR B19c	Computer Programming for Science, Engineering and Technology (C)	3.0
MATH B21	Special Projects in Mathematics (MAPLE <i>on-line</i> )	1.0
MATH B22	Elementary Probability and Statistics	5.0

**MUSIC**

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.

**Music Associate in Arts Degree**

*Total Units: 23-27*

Required Courses:

Course Number	Title	Units
MUSC B4ab	Elementary Theory	6.0
MUSC B5ab	Class Piano	2.0
MUSC B15ab	Ear Training and Sight Singing	2.0
MUSC B21ab	History of Music	6.0

Select one or both of the following courses:

Course Number	Title	Unit
MUSC B4d	Intermediate Theory-Contemporary Materials	3.0

Group Performance (Select one each semester. A minimum of four semesters of performance courses is required for the AA degree).

Course Number	Title	Units
MUSC B10ad	Concert Band	8.0
MUSC B12ad	College Orchestra	8.0
MUSC B13ad	Jazz Ensemble	4.0
MUSC B14ad	College Choir	8.0
MUSC B18ad	Drum Line	4.0

Other Suggested Courses

Course Number	Title	Units
MUSC B2	Basic Elements of Music	3.0
MUSC B6ab	Class Voice	2.0
MUSC B6cd	Class Voice	2.0
MUSC B9ac	Class Guitar	3.0
MUSC B17ad	Chamber Singers	8.0
MUSC B20ma	Mariachi Ensemble	1.0
MUSC B20sd	Steel Drum Band	1.0
MUSC B22	Music Appreciation	3.0
MUSC B23	Appreciation of Jazz	3.0
MUSC B24	A Survey of World Music	3.0
MUSC B27	History of American Popular Music	3.0
MUSC B60ab	Concepts and Applications of Music Technology	6.0

## NURSING

*See also Registered Nursing, LVN-RN Program, Vocational Nursing, Nurse Assistant*

The primary mission of the Bakersfield College Nursing/Allied Health Department is to offer academic and vocational education to prepare men and women for careers in health occupations. Through our commitment to excellence we will be able to improve and advance the health and welfare of our community by preparing excellent, competent, safe, healthcare professionals.

### Associate Degree Nursing Program

#### Mission

The mission of the Bakersfield College Associate Degree Nursing Program is to prepare entry-level registered nurses as providers and managers of care across the health/illness continuum and as members within the profession. Graduate nurses will collaborate with members of the health care team, be effective communicators, be politically aware, and demonstrate a commitment to life long learning.

#### Application Period

The Allied Health office must receive all application forms and transcripts during the following filing periods (see Application Procedures). Forms received prior to or after these dates will not be accepted.

- March 1- March 31 for the program scheduled to start in the Fall semester
- September 1 – September 30 for the program scheduled to start in the Spring semester

#### Application Procedures

**It is the student's responsibility to do the following procedures listed below:**

- Submit an application form to the Nursing Program during the appropriate application period – please note, applications must be filled out completely, all information requested must be provided.
- Submit either your unofficial or official Bakersfield College transcripts showing all pre-requisite courses.
- Bakersfield College transcripts must be received by the Nursing office before the last day of the appropriate application period.
- **Failure to meet all application requirements/procedures will result in an incomplete application and will not be considered for selection.**

**If you have taken courses from any college other than Bakersfield College:**

- Apply for Admission to Bakersfield College either in person at the Admissions and Records office or by going on-line BakersfieldCollege.edu, click on Admissions and Records and follow the directions under Enrolling.  
**Please note – the next step takes anywhere from 10-12 weeks and must be completed prior to the end of the application period:**

Have your transcripts evaluated by:

- Ordering an Official copy of your transcripts from your previous college(s);
- Submit the Official copy of your transcripts along with a form "Request for Evaluation". You can obtain this form from the Admissions and Records office or from the Admissions and Records web-page (see above) under Other Forms.
- Once your transcripts have been evaluated and posted to your Bakersfield College transcripts, either order an official copy to be sent from the Admission and Records office or print your unofficial transcript and submit it to the Allied Health Office.
- Submit an Application Form to the Nursing Program during the appropriate application periods along with either your unofficial or official Bakersfield College transcripts.

#### Prerequisite Requirements

- All prerequisites must be completed with a "C" grade or higher.
- ENGL B1A (Expository Composition) 4 units at Bakersfield College or equivalent course at another accredited college (also meets general education requirement).
- MATH BD (Intermediate Algebra) or higher, 3 units at Bakersfield College or an equivalent course at another accredited college (also meets general education requirement).
- CHEM B11 or B2A or B1A (Chemistry) a minimum of 3-4 units is required at Bakersfield College or an equivalent course at another accredited college. (CSUB requires Chem B11)
- \*\*BIOL B16 (General Microbiology) 5 units at Bakersfield College or equivalent course at another accredited college.

**The Anatomy and Physiology requirement can be met by either:**

- BIOL B32 (Anatomy & Physiology I) 4 units at Bakersfield College or equivalent course at another accredited college.
- BIOL B33 (Anatomy & Physiology II) 4 units at Bakersfield College or equivalent course at another accredited college.
- OR
- Human Anatomy (minimum of 4 units) equivalent course at another accredited college.
- and
- Human Physiology (minimum of 4 units) equivalent course at another accredited college.

#### General Education Courses

General education courses are required to graduate from Bakersfield College with an Associate Degree in Nursing. It is suggested that most of these courses be completed prior to beginning the Nursing Program.

- Social Science (3 units) – Any course listed in Area A of the Bakersfield College Catalog.
- Arts, Literature, Philosophy, and Foreign Language (3 units) – PHIL B12 (Ethics of Living & Dying) or another course listed in the Bakersfield College Catalog.
- \*Sociology B1 or Anth B2 (“C” grade or higher)
- \*Psychology B1A (“C” grade or higher)
- \*COMM B1 or B2 (“C” grade or higher) – COMM B1 is required for CSUB transfer
- Health Education (waived for RN students)
- Physical Education (1 unit)
- STDV B1, B2, B3, B6, or Nurs B100 (Recommended to be taken during the first semester of courses at Bakersfield College to assure priority registration.)

\*Board of Registered Nursing requirement

Note: All graduation requirements of the college must be met to earn an Associate of Science (A.S.) in Nursing and to take the NCLEX RN – Licensure Exam.

**Recommended Courses**

- Nurs B100, Strategies for Success in a Nursing Program (this course should be taken one or two semesters prior to entering the Program)
- Nurse Assistant Certification (information available upon request)
- MEDS B60 (Medical Terminology) – highly recommended, prior to taking BIOL B32.

**Application Selection Process**

Students will be admitted to the program based on their scholastic eligibility and placement on a nursing assessment test as per SB 1309.

**Physical Exam Requirements**

A physical examination completed by a physician of the student’s choice is required after acceptance to the Program to demonstrate that a student meets the technical standards necessary to meet the Program objectives. Appropriate immunizations and/or vaccinations and fit testing are also required and are performed at the student’s expense.

**Drug and Alcohol Screening**

As a condition of application in any Nursing/Allied Health Program with a clinical laboratory component, students are required to submit to and pass a designated drug and alcohol screening.

**Background Screening**

Every student offered space in the program will be required to submit to a background screening (at the student’s expense) as part of his or her clinical requirements for admission. Please note the following:

- A history of felony conviction(s) or any bar, exclusion or other ineligibility for federal program participation could render a student ineligible for clinical placement, as determined by the clinical agencies.

- If a student cannot obtain background clearance from the clinical agencies, it will not be possible to place the student in the clinical areas, which is a required component of the program.
- In the event that a student cannot obtain a background clearance, the space will be forfeited.
- Students who are found to be ineligible for clinical placement by the clinical agency after admission to the program shall be subject to dismissal from the program, as they will be unable to complete mandatory clinical rotations.

**Basic Life Support – BLS (formerly CPR)**

Prior to the beginning of the nursing program, and then throughout the program, students are required to show proof of a valid American Heart Association BLS – Healthcare Provider. This BLS card must be valid until the end of the 2-year ADN Program. It is your responsibility to provide a copy of the current CPR card to the nursing department and to carry a copy of this card while attending clinical in the healthcare facilities, preferably in your portfolio.

**Program Supply Information**

Students will be required to purchase uniforms, textbooks and selected equipment, provide transportation to off-campus clinical education sites and pay current college fees. An estimated cost for the four semesters in the program is approximately \$5,000. An estimated cost for books, uniforms, fees and required equipment for the first term of the Program is approximately \$2500.00. Second and third semesters usually only require registration fees and books. In addition to registration fees and books, the ADN fourth semester’s expenses will include Program Completion activities, Program pin, Board of Registered Nursing application fees and NCLEX RN Licensure.

**Associate Degree Nurse Program Curriculum**

The following courses are taken **after** the student enters the Program.

*First Semester*

Course Number	Title	Units
NURS B20	Fundamentals of Nursing (2 Lec/2 Lab)	4.0
NURS B21	Medical Surgical Nursing 1 (2.5 Lec/2.5 Lab)	5.0
NURS B22	Pharmacology	3.0
	<b>TOTAL</b>	<b>12.0</b>

*Second Semester*

Course Number	Title	Units
NURS B23	Medical/Surgical Nursing 2 (2.5 Lec/2 Lab)	4.5
NURS B24	Obstetrics-Maternity Nursing (1.5 Lec/1.5 Lab)	3.0
NURS B25	Mental Health-Psychiatric Nursing (2 Lec/1.5 Lab)	3.5
	<b>TOTAL</b>	<b>11.0</b>

*Third Semester*

Course Number	Title	Units
NURS B26	Medical/Surgical Nursing 3 (2.5 Lec/3 Lab)	5.5
NURS B27	Pediatric Nursing (1.5 Lec/2 Lab)	3.5
	TOTAL	9.0

*Fourth Semester*

Course Number	Title	Units
NURS B28	Medical/Surgical Nursing 4 (3 Lec/4 Lab)	7.0
NURS B29	Gerontology-Community Nursing (1 Lec/1 Lab)	2.0
	TOTAL	9.0

**Program Approval Accreditation**

The California Board of Registered Nursing approves the Bakersfield College Associate Degree Nursing Program. The Western Association of Schools and Colleges accredits Bakersfield College.

**Licensure/Certification Eligibility**

Record of any misdemeanor and/or felony is subject to review by the Board of Registered Nursing before a RN license may be granted. Anyone who wishes clarification may contact the Board of Registered Nursing, PO Box 944210, Sacramento, CA 94244.

Applicants for RN Licensure must submit a valid Social Security number or Taxpayer ID Number at the time of application.

**LVN to Associate Degree Nursing Program**

**Mission**

The mission of the Bakersfield College LVN-Associate Degree Nursing Program is to prepare entry-level registered nurses as providers and managers of care across the health/illness continuum and as members within the profession. Graduate nurses will collaborate with members of the health care team, be effective communicators, be politically aware, and demonstrate a commitment to life long learning.

**Application Period**

The Nursing/Allied Health office must receive all application forms and transcripts during the following filing periods (see Application Procedures). Forms received prior to or after these dates will not be accepted.

- March 1- March 31 for the program scheduled to start in the Fall semester
- September 1 – September 30 for the program scheduled to start in the Spring semester

**Application Procedures**

It is the student’s responsibility to do the following procedures listed below:

1. If you are a Bakersfield College Student with no other college courses other than Bakersfield College courses: Submit an Application Form to the Nursing Program during

the appropriate application period along with either your unofficial or official Bakersfield College transcripts.

2. If you have taken courses from any college other than Bakersfield College: Apply for Admission to Bakersfield College either in person at the Admissions and Records office or by going on-line BakersfieldCollege.edu, click on Admissions and Records and follow the directions under Enrolling.
3. **Please note – the next step takes anywhere from 10-12 weeks and must be completed prior to the end of the application period:**

Have your transcripts evaluated by:

- Ordering an Official copy of your transcripts from your previous college(s);
- Submit the Official copy of your transcripts along with a form “Request for Evaluation”. You can obtain this form from the Admissions and Records office or from the Admissions and Records web-page (see above) under Other Forms.
- Once your transcripts have been evaluated and posted to your Bakersfield College transcripts, either order an official copy to be sent from the Admission and Records office or print your unofficial transcript and submit along with Application Form to the Nursing Program during the appropriate application periods.

**Prerequisite Requirements**

All prerequisites must be completed with a “C” grade or higher.

- ENGL B1A (Expository Composition) 4 units at Bakersfield College or equivalent course at another accredited college.
  - MATH BD (Intermediate Algebra) or higher, 3 units at Bakersfield College or an equivalent course at another accredited college
  - CHEM B11 or B2A or B1A (Chemistry) a minimum of 3-4 units is required at Bakersfield College or an equivalent course at another accredited college. (CSUB requires Chem B11)
  - BIOL B16 (General Microbiology) 5 units at Bakersfield College or equivalent course at another accredited college.
  - BIOL B32 (Anatomy & Physiology I) 4 units at Bakersfield College or equivalent course at another accredited college.
  - BIOL B33 (Anatomy & Physiology II) 4 units at Bakersfield College or equivalent course at another accredited college.
  - Human Anatomy (minimum 4 units) equivalent course at another accredited college
- AND

- Human Physiology (minimum 4 units) equivalent course at another accredited college
- Proof of IV Certification
- One year experience working as an LVN
- Possession of current California Vocational Nurse License.
- American Heart Association BLS - Healthcare Provider card current within one year.
- Overall GPA of 2.5.
- Graduation from high school or an equivalent education.

**General Education Courses**

General education courses are required to graduate from Bakersfield College with an Associate Degree in Nursing. It is suggested that most of these courses be completed prior to beginning the Nursing Program.

- Social Science (3 units) – Any course listed in Area A of the Bakersfield College Catalog.
- Arts, Literature, Philosophy, and Foreign Language (3 units) – PHIL B12 (Ethics of Living & Dying) or another course listed in the Bakersfield College Catalog.
- \*Sociology B1 or Anth B2 (“C” grade or higher)
- \*Psychology B1A (“C” grade or higher)
- \*COMM B1, B2, or B3 (“C” grade or higher) – COMM B1 is required for CSUB transfer
- Health Education (waived for RN students)
- Physical Education (1 unit) required for students who graduate under the age of 21)
- STDV B1, B2, B3, B6, or Nurs B100 (Recommended to be taken during the first semester of courses at Bakersfield College to assure priority registration.)

\*Board of Registered Nursing requirement

Note: All graduation requirements of the college must be met to earn an Associate of Science (A.S.) in Nursing and to take the NCLEX RN – Licensure Exam.

**Enrollment Selection**

In the event the number of qualified students for the ADN Program exceeds space available, the following selection process is utilized. Students who are qualified for enrollment enter in the order in which their names appear on the Program Waiting List. The student’s position on this list is determined by random drawing of names. To remain current on the waiting list, enrollment forms must be submitted each semester until Program is entered.

**Physical Examination Requirements**

A physical examination completed by a physician of the student’s choice is required when entering the Program to demonstrate that a student meets the technical standards necessary to meet the Program objectives. Appropriate immunizations and/or vaccinations and fit testing are also required and are performed at the student’s expense.

**Drug/Alcohol Screening**

As a condition of application in any Nursing/Allied Health Program with a clinical laboratory component, students are

required to submit to and pass a designated drug and alcohol screening.

**Background Screening**

Every student offered space in the program will be required to submit to a background screening (at the student’s expense) as part of his or her clinical requirements for admission. Please note the following:

- A history of felony conviction(s) or any bar, exclusion or other ineligibility for federal program participation could render a student ineligible for clinical placement, as determined by the clinical agencies.
- If a student cannot obtain background clearance from the clinical agencies, it will not be possible to place the student in the clinical areas, which is a required component of the program.
- In the event that a student cannot obtain a background clearance, the space will be forfeited.
- Students who are found to be ineligible for clinical placement by the clinical agency after admission to the nursing program shall be subject to dismissal from the program, as they will be unable to complete mandatory clinical rotations.

**Basic Life Support – BLS (formerly CPR)**

Prior to the beginning of the nursing program, and then throughout the program, students are required to show proof of a valid American Heart Association BLS – Healthcare Provider. This BLS card must be valid until the end of the 1-year LVN-ADN Program. It is your responsibility to provide a copy of the current CPR card to the nursing department and to carry a copy of this card while attending clinical in the healthcare facilities, preferably in your portfolio.

**Program Supply Information**

Students will be required to purchase uniforms, textbooks and selected equipment, provide transportation to off campus clinical education sites and pay current college fees. An estimated cost for books, uniforms, fees and required equipment for the first term of the Program is approximately \$1500.00. In addition to registration fees and books, the ADN fourth semester’s expenses will include Program Completion activities, Program pin, ATI test, and State Board application fees.

**LVN-ADN Program Curriculum**

The following courses are taken after the student enters the Program.

*Third Semester*

Course Number	Title	Units
NURS B26	Medical Surgical Nursing 3 (2.5 lec/3 lab)	5.5
NURS B25	Mental Health-Psychiatric Nursing (2 lec/1.5 lab)	3.5
NURS B70	Role Transitioning: Bridging Theory to Practice (1.5 lect/.5 lab)	2.0
TOTAL		11.0

*Fourth Semester*

Course Number	Title	Units
NURS B28	Medical/Surgical Nursing 4 (3 lec/4 lab)	7.0
NURS B29	Gerontology - Community Nursing	2.0
	TOTAL	9.0

**Program Accreditation**

The California Board of Registered Nursing accredits the Bakersfield College Associate Degree Nursing Program. The Western Association of Schools and Colleges accredits Bakersfield College.

**Licensure/Certification Eligibility**

Conviction of any offenses other than minor traffic violations must be reported to the Board of Registered Nursing at the time of application for licensure. For clarification contact the ADN Program Director or the Board of Registered Nursing, 400 R Street, Suite 4030, Sacramento, California, 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 Director of the Associate Degree Nursing Program.

**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.

**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.
2. Challenge examination 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.

**Vocational Nursing Program Certificate of Achievement Mission**

The mission of the Bakersfield College Vocational Nursing Program is to prepare entry-level vocational nurses as providers of care across the health/illness continuum and as members within the profession.

**Enrollment Period**

The VN Program begins every fall semester. Enrollment forms must be received by the Allied Health office with all official transcripts evaluated, during the month of February for a program scheduled to start in the fall semester.

**Enrollment Procedures**

It is the student’s responsibility to do the following things prior to the Program’s enrollment period.

If you are a Bakersfield College Student with no other college courses other than Bakersfield College courses:

Apply to the program during the February application period as follows:

- Submit completed application form.
- Provide the program with either an official transcript from Bakersfield College, or you can print your unofficial transcript off the Web and submit it to the program.

If you have taken courses from any college other than Bakersfield College:

Apply for Admission to Bakersfield College either in person at the Admissions and Records office or by going on-line BakersfieldCollege.edu, click on Admissions and Records and follow the directions under Enrolling.

Please note – the next step takes anywhere from 10-12 weeks and must be completed prior to the end of the application period:

Have your transcripts evaluated by:

- Ordering an Official copy of your transcripts from your previous college(s);
- Submit the Official copy of your transcripts along with a form “Request for Evaluation”. You can obtain this form from the Admissions and Records office or from the Admissions and Records web-page (see above) under Other Forms.

Once your transcripts have been evaluated and posted to your Bakersfield College transcripts, either order an official copy to be sent from the Admission and Records office or print your unofficial transcript and submit it to the Allied Health Office.

**All Applicants**

- Obtain application form from the Allied Health Division office located in Room 178 of the Math-Science Building on the main campus OR in the counseling center located in the Student Services Building on the main campus OR by telephone at (661) 395-4281 OR download one from our website at [www2.bakersfieldcollege.edu/alliedhealth/](http://www2.bakersfieldcollege.edu/alliedhealth/) select the Program Brochures tab, then select the VN Application.
- Provide college transcripts as outlined above.
- Provide proof of 12th grade education by submitting one of the following:
  1. Proof of graduation from high school or equivalent education in the United States (GED) or (CHSPE).



- 2. Foreign high school evaluated by an accepted agency in the United States.
- 3. Proof of completion of Associate or Baccalaureate Degree in the United States.
- Enrollment forms are valid only for the current available Program. Students not enrolled must complete an updated enrollment form each enrollment period.

**Eligibility For Enrollment**

If an Allied Health Program has more qualified students for enrollment than space available, priority is provided to residents of the Kern Community College District.

**Prerequisite Requirements**

All prerequisites must be completed prior to the start of the Program with a “C” grade or higher. Priority is provided to students with all prerequisite courses completed at the time of submitting an enrollment form.

- Proof of graduation from high school or an equivalent education
- BIOL B18 (Essentials of Human Anatomy and Physiology) at Bakersfield College or an equivalent course at another accredited college.
- PSYC B1A (General Psychology) at Bakersfield College or an equivalent course at another accredited college.
- MATH BA or B200A (Elementary Algebra) at Bakersfield College or an equivalent course at another accredited college)
- Eligibility for ENGL B1A (Expository Composition) as demonstrated by qualifying scores on the college assessment test or completion of ENGL B50 at Bakersfield College or equivalent course from another accredited college with a “C” or higher.
- Nurse Assistant certification - highly recommended.
- MEDS B60 (Medical Terminology) – highly recommended.

Note: Students desiring to continue their education and become a registered nurse need to refer to the prerequisites required for the Associate Degree Nursing Program.

**Program Supply Information**

Students will be required to purchase uniforms, textbooks and selected equipment, provide transportation to off-campus clinical education sites and pay current college fees. An estimated cost for books, uniforms, fees and required equipment for the first term of the Program is approximately \$2500.00. Second semester usually only requires registration fees and books. In addition to registration fees and books, the VN third semester’s expenses will include program completion activities, Program nursing pin, and Bureau of Vocational Nursing and Psychiatric Technicians application and NCLEX-PN Licensure fees. Total program costs are approximately \$4500.

**Vocational Nurse Program Curriculum**

The following courses are taken after the student enters the Vocational Nursing Program.

*First Semester*

Course Number	Title	Units
VNRS B1	Nursing Fundamentals	3.0
VNURS B1LV	Vocational Nursing Laboratory	6.0
VNRS B1G	Gerontological Nursing	1.0
VNRS B31AB	Basic Pharmacology	2.0
VNRS B75	Medical/Surgical Nursing I	3.5
	<b>TOTAL</b>	<b>15.5</b>

*Second Semester*

Course Number	Title	Units
VNRS B85	Medical-Surgical Nursing II	2.5
VNRS B85LV	Medical Surgical Nursing II - Clinical Laboratory	1.5
VNRS B86	Medical Surgical Nursing III	4.0
VNRS B86LV	Medical Surgical Nursing III - Clinical Laboratory	3.0
VNRS B6	Pediatric Nursing	1.5
VNRS B97LV	Pediatrics - Clinical Laboratory	1.5
VNRS B50a	Advanced Pharmacology	0.5
	<b>TOTAL</b>	<b>14.5</b>

*Third Semester*

Course Number	Title	Units
VNRS B95	Medical/Surgical Nursing IV	4.0
VNRS B95LV	Medical/Surgical Nursing IV - Laboratory	2.5
VNRS B96	Medical/Surgical Nursing V	2.0
VNRS B96LV	Medical/Surgical Nursing V - Laboratory	2.0
VNRS B7	Parent/Newborn Nursing	1.5
VNRS B87LV	Maternal Newborn - Clinical Laboratory	1.5
VNRS B50B	Advanced Pharmacology, Part B	0.5
	<b>TOTAL</b>	<b>14.0</b>

- The clinical laboratory components of all nursing courses are graded on a Pass/No Pass basis only.
- VN students are exempt from the maximum of three (3) Pass/No Pass units that may be taken in a semester and from the maximum of twelve (12) Credit / No Credit units which may be applied toward the AA and AS degrees at Bakersfield College.

**Enrollment Selection**

In the event the number of qualified students for the VN Program exceeds space available, the following selection process will be utilized. Students who are qualified for enrollment will enter in the order in which their names appear on the Program Waiting List. An applicant’s position on this list will be determined by a random drawing of names by the Director, Assistant Director and one assistant.

To remain current on the waiting list, enrollment forms must be submitted prior to each enrollment semester until Program is entered.

**Physical Examination**

A physical examination completed by a physician of the student’s choice is required when entering the Program to demonstrate that a student meets the technical standards

necessary to meet the Program objectives. Appropriate immunizations and/or vaccinations and fit testing are also required and are performed at the student's expense.

### Drug / Alcohol Screening

As a condition of application in any Nursing/Allied Health Program with a clinical laboratory component, students are required to submit to and pass a designated drug and alcohol screening.

### Background Screening

Every student offered space in the program will be required to submit to a background screening (at the student's expense) as part of his or her clinical requirements for admission. Please note the following:

- A history of felony conviction(s) or any bar, exclusion or other ineligibility for federal program participation could render a student ineligible for clinical placement, as determined by the clinical agencies.
- If a student cannot obtain background clearance from the clinical agencies, it will not be possible to place the student in the clinical areas, which is a required component of the program.
- In the event that a student cannot obtain a background clearance, the space will be forfeited.
- Students who are found to be ineligible for clinical placement by the clinical agency after admission to the nursing program shall be subject to dismissal from the program, as they will be unable to complete mandatory clinical rotations.

### Basic Life Support – BLS (formerly CPR)

Prior to the beginning of the nursing program, and then throughout the program, students are required to show proof of a valid American Heart Association BLS – Healthcare Provider. This BLS card must be valid until the end of the 18-month Program. It is your responsibility to provide a copy of the current BLS card to the nursing department and to carry a copy of this card while attending clinical in the healthcare facilities, preferably in your portfolio.

### Program Accreditation

The California Bureau of Vocational Nursing and Psychiatric Technicians accredits the Bakersfield College Vocational Nursing Program. The Western Association of Schools and Colleges accredits Bakersfield College.

### Licensure/Certification Eligibility

Conviction of any offenses other than minor traffic violations must be reported to the Bureau of Vocational Nursing and Psychiatric Technicians at the time of application for licensure. For clarification contact the VN Program Director or the Bureau of Vocational Nursing and Psychiatric Technicians, 2535 Capitol Oaks Drive, Suite 205, Sacramento, California, 95833, (916) 263-7800.

## Nurse Assistant

### General Information:

The Nurse Assistant (NA) course prepares the student to provide services to those who need health care. The student will learn the role of the caregiver, the healthcare environment, healthcare safety; adult needs in health and illness and basic care giving skills. Upon successful completion of the Nurse Assistant course, the student is eligible to take the competency exam as a Certified Nursing Assistant by the Department of Public Health. Students with a misdemeanor and/or felony record may not receive certification or licensure from the State or County - clarification can be provided by the Nurse Assistant Coordinator.

### Fees Information:

Students are responsible for enrollment fees, physical examinations, immunizations and/or vaccines, drug and alcohol screen and uniform attire. The estimated cost of fees, examinations, textbooks and uniforms for the program is approximately \$1,000.00. Financial Aid may be available.

### Program Requirements:

- A physical examination completed by a physician of the student's choice will be required after enrollment into the program, to demonstrate that the student meets the technical medical standards necessary to meet the course objectives. Appropriate immunizations and fit testing are also required and are performed at the student's expense.
- As a condition of enrollment to any Allied Health Program with a clinical laboratory component, all students are required to submit to and pass a designated drug and alcohol screen.
- Background Screening  
Every student offered space in the program will be required to submit to a background screening (at the student's expense) as part of his or her clinical requirements for admission. Please note the following:
  - A history of felony conviction(s) or any bar, exclusion or other ineligibility for federal program participation could render a student ineligible for clinical placement, as determined by the clinical agencies.
  - If a student cannot obtain background clearance from the clinical agencies, it will not be possible to place the student in the clinical areas, which is a required component of the program.
  - In the event that a student cannot obtain a background clearance, the space will be forfeited.
  - Students who are found to be ineligible for clinical placement by the clinical agency after admission to the nursing program shall be subject to dismissal from the program, as they will be unable to complete mandatory clinical rotations.
- Background Screening/Drug/alcohol/ testing may be required at anytime during the semester.
- Student must submit fingerprints.
- Student will need to provide a social security card.

- Student will need to purchase the required uniforms, shoes and sweater or lab coat and equipment.
- Student will need to provide transportation to off-campus clinical education sites.

**Nurse Assistant Curriculum:**

Course	Title	Units
MEDS B67	Nurse Assistant	3.5
MEDS B67L	Nurse Assistant Lab	2.5

**Nurse Assistant Job Skills Certificate**

This certificate is necessary to document eligibility to take the competency exam for a Certified Nurse Assistant administered by the American Red Cross. This provides proof to the California Department of Public Health that the student has met the requirements for licensure. Students must complete the required courses with at least a “C” grade.

*Total Units: 6*

Required Courses:

Course Number	Title	Units
MEDS B67	Nurse Assistant	3.5
MEDS B67L	Nurse Assistant Laboratory	2.5

**Licensure/Certification Eligibility:**

Students with a misdemeanor and/or felony record may not receive certification or licensure from the State or County. Anyone who wishes clarification may contact the Allied Health Office at 661-395-4281.

**OFFICE TECHNOLOGY**

*See Business Administration*

**PHILOSOPHY**

A major in philosophy has always been and continues to be one of the strongest traditional liberal arts majors in higher education. Some students major in Philosophy as a precursor to graduate work and academic careers, teaching and doing research in Philosophy and Education. Philosophy’s 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).

**Philosophy Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

*Total Units: 18*

Required Courses:

Course Number	Title	Units
PHIL B6a	Introduction to Philosophy	3.0
PHIL B7 or PHIL B9	Introduction to Logic	3.0
PHIL B9	Critical Thinking and Advanced Composition	4.0
PHIL B10	Introduction to Ethics	3.0

Electives - at least 9 units

Course Number	Title	Units
PHIL B12	Ethics of Living and Dying	3.0
PHIL B18	History of Ancient Philosophy	3.0
PHIL B32	World Religions: East	3.0
PHIL B33	World Religions: West	3.0
PHIL B37	Introduction to World Religions	3.0

**PHYSICAL EDUCATION**

**Physical Education Associate in Arts**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

The major requirements for an Associate Degree in Physical Education may be satisfied by completing 23 units as outlined below.

*Total Units: 23*

Required Courses:

Course Number	Title	Units
HLED B1	Principles of Health Education	3.0
PHED B39a	Prevention and Care of Athletic Injuries	3.0
PHED B40	Introduction to Physical Education	3.0
PHED B31	Standard First Aid	1.0
BIOL B32	Human Anatomy and Physiology I	4.0
BIOL B33	Human Anatomy and Physiology II	4.0

*Electives: at least 5 units from one of the activities listed below:*

Team Activities	Units
PHED B5wsb Softball (Women)	1.00
PHED B5vb Volleyball (Women)	1.00
PHED B6bb Basketball	1.00
PHED B6g-golf	1.00
PHED B6sc Soccer	1.00
PHED B6t Tennis	1.00
PHED B6v Volleyball	1.00
PHED B6vi Intermediate Volleyball	1.00
PHED B7b Advanced Baseball	1.00
PHED B7fb Advanced Football	1.00
PHED B7w Advanced Wrestling	1.00
PHED B9s Advanced Swimming	1.00
PHED B9t Advanced Tennis	1.00
PHED B9tr Advanced Track	1.00
PHED B10 Intercollegiate Football	2.00
PHED B11 Intercollegiate Basketball	2.00
PHED B12 Intercollegiate Track and Field	2.00
PHED B13 Intercollegiate Tennis	2.00
PHED B14 Intercollegiate Baseball	2.00
PHED B16 Intercollegiate Golf	2.00
PHED B17 Intercollegiate Cross-Country	2.00
PHED B20 Intercollegiate Wrestling	2.00
PHED B22 Women’s Intercollegiate Tennis	2.00
PHED B23 Women’s Intercollegiate Soccer	2.00
PHED B24 Intercollegiate Golf for Women	2.00
PHED B25 Women’s Intercollegiate Volleyball	2.00
PHED B26 Women’s Intercollegiate Track and Field	2.00
PHED B27 Women’s Intercollegiate Cross-Country	2.00
PHED B28 Women’s Intercollegiate Basketball	2.00
PHED B29 Women’s Intercollegiate Softball	2.00

**Individual Activities**

PHED B3adp Adaptive Physical Education	1.00
PHED B6a Archery	1.00
PHED B6bLb Beginning Ballet (Same as DANC B6bLb)	1.00
PHED B6da Dance Aerobics	1.00
PHED B6fcx Fitness Center	1.00
PHED B6jd Jazz Dance (Same as DANC B6jd)	1.00
PHED B6kx CardioKickboxing Fitness	1.00
PHED B6md Modern Dance (Same as DANC B6md)	1.00
PHED B6pl Pilates	1.00
PHED B6py Pilates/Yoga Mat Flow	1.00
PHED B6wt Weight Training	1.00
PHED B6y Yoga	1.00

**Aquatics**

PHED B2dwr Deep Water Running	1.00
PHED B2sb Beginning Swimming	1.00
PHED B2ssf Swim and Stay Fit	1.00
PHED B2wa Water Aerobics	1.00
PHED B2wp Water Polo	1.00

**PHYSICS**

**Physics Associate in Science Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

*Total Units: 34*

Required Courses:

Course Number	Title	Units
PHYS B4a	Mechanics & Wave Motion	4.0
PHYS B4b	Heat, Electricity, & Magnetism	4.0
PHYS B4c	Optics & Modern Physics	4.0
CHEM B1a	General Chemistry	5.0
CHEM B1b	General Chemistry & Chemical Analysis	5.0
MATH B6a	Analytic Geometry & Calculus I	4.0
MATH B6b	Analytic Geometry & Calculus II	4.0
MATH B6c	Calculus III	4.0

*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 B2a-B2b or B4a-B4c) and Chemistry (Chemistry B1a-B1b, B2a) 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.

Course Number	Title	Units
PHYS B4a	Mechanics & Wave Motion	4.0
PHYS B4b	Heat, Electricity, & Magnetism	4.0
PHYS B4c	Optics & Modern Physics	4.0
CHEM B1a	General Chemistry	5.0
CHEM B1b	General Chemistry & Chemical Analysis	5.0
MATH B6a	Analytic Geometry & Calculus I	4.0
MATH B6b	Analytic Geometry & Calculus II	4.0
MATH B6c	Calculus III	4.0
MATH B6d	Ordinary Differential Equations	3.0

Recommended Courses

Course Number	Title	Units
BIOL B3a	General Biology I	5.0
BIOL B11	Concepts of Biology	4.0

**POLITICAL SCIENCE**

**Political Science Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

The majors in Political Science are designed for students interested in gaining an understanding of the structure and functions of governments. The majors are an important part of the liberal arts program and prepare students for further study and careers in education, law, business, government, international relations and journalism.

The student should select the major emphasis, and 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.

*Total Units: 18*

Required Courses:

Course Number	Title	Units
POLS B1	American Government: National, State and local	3.0
POLS B2 or POLS B3	Comparative Government International Politics	3.0
POLS B12 or POLS B16	State and Local Government Vital Political Problems	3.0
HIST B4ab or HIST B17ab or HIST B20ab or HIST B30ab	European Civilization History of the U.S. African American History of the US Chicano History	6.0
ECON B2 or PSYC B5 or MATH B22	Principles of Economics-Macro Elementary Statistics for the Behavioral and Social Sciences (5.0) Elementary Probability and Statistics (5.0)	3.0

**Political Science, Emphasis in Domestic Policy Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

*Total Units: 18*

Required Courses:

Course Number	Title	Units
POLS B1	American Government: National, State and local	3.0
POLS B12	State and Local Government	3.0
POLS B16	Vital Political Problems	3.0
HIST B17ab	History of the U.S.	6.0
ECON B2 or PSYC B5 or MATH B22	Principles of Economics-Macro Elementary Statistics for the Behavioral and Social Sciences (5.0) Elementary Probability and Statistics (5.0)	3.0

*Electives*

Course Number	Title	Units
ENGL B2	Advanced Composition & Critical Thinking	5.0
HIST B18	History of California	3.0
PSYC B1a	General Psychology	3.0
SOCI B1	Introduction to Sociology	3.0

### Political Science, Emphasis in International Relations Associate in Arts Degree

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

*Total Units: 18*

#### Required Courses:

Course Number	Title	Units
POLS B1	American Government: National, State and local	3.0
POLS B2	Comparative Government	3.0
POLS B3	International Politics	3.0
HIST B4ab	European Civilization	6.0
ECON B2 or PSYC B5 or	Principles of Economics-Macro and Elementary Statistics for the Behavioral and Social Sciences (5.0)	3.0
MATH B22	Elementary Probability and Statistics (5.0)	

### PRE-VETERINARY MEDICINE

*See Agriculture*

### 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 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 of didactic instruction each month (12 months) thereafter. All clinical experience occurs in an office practice preceptorship. 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 18 months direct patient care experience.
4. Satisfactory completion of the following academic prerequisites or their equivalents.

General Education courses are required for the P.C.A. Program. It is recommended that an AA or AS degree at Bakersfield College be completed prior to applying to the program.

The student must have a preceptor site established in order to complete the clinical experiences necessary for the program. Some assistance may be available in locating a preceptor.

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 BA at Bakersfield College.

Chemistry - Introductory. One year of high school chemistry or equivalent.

Cultural Anthropology or Sociology: ANTH B2, SOCI B1 at Bakersfield College, or another acceptable course.

English Composition - Freshman level: ENGL B50 (formerly ENGL B1), ENGL B1a at Bakersfield College, or other acceptable course.

General Psychology - PSYC B1a at Bakersfield College or other acceptable course.

Microbiology with laboratory; BIOL B16 at Bakersfield College, or other acceptable course.

\*American History and Institutions. See Graduation and General Education Section of this catalog.

\*Computer Literacy - Two semester units. Must include experience at a terminal (COMS B2 ) 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: COMM B1 or COMM B2 at Bakersfield College, or other acceptable course.

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

## PSYCHOLOGY

### Psychology Associate in Arts Degree

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

The major in psychology provides a study of the behavior of individuals and groups. The four-year degree in this major contributes to the foundational knowledge for positions in research and teaching, counseling, and working in clinical settings.

*Total Units: 20*

Required Courses: 14 units

Course Number	Title	Units
PSYC B1a	General Psychology	3.0
PSYC B2	Interpersonal & Group Process Skills for the Helping Occupations	3.0
PSYC B5	Elementary Statistics for the Behavioral and Social Sciences	5.0
PSYC B40	Child Psychology and Development	3.0

Electives: *at least 6 units*

PSYC B1b	Biological Psychology	3.0
PSYC B20 (same as SOCI B20)	Social Psychology	3.0
PSYC B30	Human Sexuality	3.0
PSYC B33	Personal and Social Adjustment	3.0
PSYC B45	Behavior Modification	3.0
SOCI B1	Introduction to Sociology	3.0
ANTH B2	Cultural Anthropology	3.0

## RADIOLOGIC TECHNOLOGY

### Radiologic Technology

Radiologic Technology is a health care profession whose practitioners work in hospitals, imaging centers, and private physicians’ offices. The radiologic technologist (radiographer) is a member of the health care 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.

Students should anticipate making a full time commitment to the program during the school year. Summer sessions are required and semester/terms may be scheduled beyond the regular college session dates. Clinical education sites include hospitals and imaging centers affiliated with the college. Current clinical education settings include sites in Bakersfield, California and Delano, California.

The program provides the theory, skill and experience necessary to apply for admission to the certification exam administered by the American Registry of Radiologic Technologists (ARRT); and for certification from the State of California, Department of Public Health, Radiologic Health Branch, as a Certified Radiologic Technologist (CRT). The student is also eligible to write the State Fluoroscopy Permit exam. Students must earn a minimum of “C” in all radiography and related general education courses, have met the State mandated curriculum and clinical hours and have met all clinical education competencies to be recommended for these examinations/certifications.

For program information, brochure and enrollment application form, consult the following website at [www2.bakersfieldcollege.edu/alliedhealth/](http://www2.bakersfieldcollege.edu/alliedhealth/)

### Radiologic Technology Program Mission and Goals

The mission of the Bakersfield College Radiologic Technology Program is to promote student success by providing quality instruction for graduates to competently practice radiography at the entry level.

The Program goals are; 1) Students will be clinically competent. 2) Students will critically think and problem solve. 3) Students will demonstrate effective communication skills. 4) Students will demonstrate professional growth and development. 5) The Program will graduate entry-level radiographers.

### Radiologic Technology Program Prerequisite Requirements

All prerequisite coursework must be completed prior to applying for the Radiologic Technology Program. This is a *new* requirement effective for all future enrollments. The next application period will be in February 2011. Therefore, courses must be completed by the end of the fall 2010 semester in order to be considered for program eligibility. Courses in-progress during spring 2011 will not be considered for enrollment.

When there are more applicants than space available, priority is provided to applicants that reside within the Kern Community College District. Non-resident applications will not be considered.

Students are strongly encouraged to complete prerequisite courses prior to enrolling in general education courses. This will improve a student’s opportunity to apply for program enrollment. The following prerequisite courses must be completed with a “C” grade or higher (except where otherwise noted):

1. BIOL B18 (Essentials of Anatomy and Physiology)  
OR  
BIOL B32 (Human Anatomy and Physiology I ) **and**  
BIOL B33 (Human Anatomy and Physiology II)  
OR

equivalent course(s) at another accredited college.

**Note:** BIOL B14 (Human Anatomy) and BIOL B15 (Human Physiology) were previously taught at Bakersfield College and they meet this requirement.

2. MATH BD (Intermediate Algebra) at Bakersfield College OR equivalent course at another accredited college  
A higher level college math course will be accepted in lieu of this algebra requirement. Note: MATH BD is the minimum requirement for math to earn the Associate Degree beginning in fall 2009.
3. MEDS B60 (Medical Terminology - 3 units) at Bakersfield College or equivalent course at another accredited college.
4. Eligibility for ENGL B1a as demonstrated by qualifying scores on the Bakersfield College assessment tests; or completion of ENGL B50 (previously ENGL B1) at Bakersfield College; or an equivalent course from another accredited college with a minimum grade of "C." If you qualify for this prerequisite through an assessment score, you must provide this score to the Program. Note: English B1A is the minimum requirement for English to earn the Associate Degree beginning in fall 2009.
5. Graduation from high school or an equivalent education (GED/CHSPE).

### Enrollment Procedures and Filing Period

Enrollment forms and all required documents (transcripts) must be received by the Radiologic Technology Program Office during the application month of February.

### Enrollment Application Procedures

1. Complete required prerequisite courses (see above).
2. Obtain enrollment application forms from the Allied Health Department located in Room 178 of the Math-Science Building on the main campus; or by telephone at (661) 395-4284; or on the website at [www2.bakersfieldcollege.edu/alliedhealth/](http://www2.bakersfieldcollege.edu/alliedhealth/).
3. Arrange for an official copy of your high school transcript to be mailed directly to the: Radiologic Technology Program, Bakersfield College, 1801 Panorama Drive, Bakersfield, California 93305. A copy of High School Equivalency GED or CHSPE is required if your high school transcript does not identify graduation. Note: You may also hand deliver this transcript providing the transcript is "official" and sealed.
4. If you are a Bakersfield College (Bakersfield College) student with no other college courses other than Bakersfield College courses: Provide the Program with an unofficial Bakersfield College transcript from the college web site or an unofficial transcript from the Admissions and Records Office. If you plan to qualify for the English prerequisite through an assessment score, you must also provide this to the Program.
5. If you have taken courses from any other college other than Bakersfield College:
  - a. Apply for admission to Bakersfield College either in person or online at [BakersfieldCollege.edu](http://BakersfieldCollege.edu), click on Admissions

- and Records and follow the directions under "Enrolling".
- b. Submit an official copy of your transcripts from your previous college to the Office of Admissions & Records and request an evaluation of your transcripts. This process requires the form "Request for Evaluation". You may obtain this form in the Office of Admissions & Records or on-line under Admissions & Records- "Other Forms." Note: This process can take up to 10-12 weeks. Once your transcripts have been evaluated and posted to your Bakersfield College transcript, the student must either print a copy of the Bakersfield College transcript from the website or request one from the Office of Admissions and Records. This evaluation must be completed and then submitted to the Program prior to the end of the Program enrollment filing period during the month of February. **It is the responsibility of the student to supply this information to the Program during the month of February prior to the end of the enrollment filing period.**
6. Late application materials will not be considered for the current application period. Applicants are responsible for ensuring that their application is complete. The program is NOT responsible for late materials or incomplete applications.
7. Students on the Wait List must reapply annually during the enrollment month of February. This is required every year to keep the applicant's file current. If the student does NOT reapply, the student will be removed from the Wait List.
8. If the Radiologic Technology Program has more applicants for enrollment than space available and the current Wait List will fill the next program class of students, priority is provided to residents of the Kern Community College District.

### General Education Requirements

General education courses are required to graduate from the Bakersfield College Associate in Science Degree Radiologic Technology Program. It is suggested that most be completed prior to program enrollment. Refer to the Bakersfield College General Education and Graduation Requirements in this catalog for more specific information and requirements for the college.

1. Student Development: It is recommended that students complete this component as they begin college coursework.
2. Computer Studies (3 units) - COMS B2 or COMS B5 or equivalent is *necessary* to meet radiologic technology program completion.
3. Behavioral Science - Psychology B1a recommended
4. Arts, Literature, Philosophy and Foreign Language- Humanities - Philosophy B12 recommended.
5. Health Education - Students that successfully complete the Radiologic Technology Program are waived from the Health Education requirement for graduation.
6. An individual who has previously received an associate degree or higher must meet and earn the Associate in Science Degree requirements for the Radiologic Technology Program to meet eligibility requirements for certification and licensure.

**Health Requirements and Screenings**

1. A physical examination will be required after the students receive notification of enrollment into the program to demonstrate that a student meets the technical standards necessary to meet the objectives of the program. A copy of the *Essential Technical Standards* required for Radiologic Technologists may be obtained in the Allied Health Division Office located in the Math-Science building, room 178 or on the program website at [www2.bakersfieldcollege.edu/alliedhealth](http://www2.bakersfieldcollege.edu/alliedhealth).
2. As a condition of enrollment to the Radiologic Technology Program, all students are required to submit to and pass a designated drug and alcohol screen.
3. As a condition of enrollment in any Allied Health Program with a clinical component, students are required to submit to and pass a designated background check. Every student offered space in the program will be required to submit to a background screening as part of his or her clinical requirements for admission. Please note the following:
  - A history of felony conviction(s) or any bar, exclusion or other ineligibility for federal program participation could render a student ineligible for clinical placement, as determined by the clinical agencies.
  - If a student cannot obtain background clearance from the clinical agencies, it will not be possible to place the student in the clinical areas, which is a required component of the program.
  - In the event that a student cannot obtain a background clearance, the space will be forfeited.
  - Students who are found to be ineligible for clinical placement by the clinical agency after admission to the radiography program shall be subject to dismissal from the program, as they will be unable to complete mandatory clinical rotations.
4. Immunizations/health tests are needed for acceptance in a clinical education center and to protect the health and welfare of the student and community. Immunizations may include, but not be limited to, rubella, varicella, and Hepatitis B. Tuberculosis screening is also required.
5. The medical exams, drug/alcohol screens, background screen, immunizations and tests are performed at the expense of the student.
6. The student must possess a current CPR (cardiopulmonary resuscitation) card by the American Health Association (Healthcare Provider card). This card must be provided at the start of the program and be kept valid during the entire 24-month program.

**Program Supply Information**

Students will be required to purchase uniforms, textbooks and selected equipment, provide transportation to off campus clinical education centers in Bakersfield, California and Delano, California and pay current college fees. Estimated costs for books, uniforms, fees and required equipment for the first year of the program are approximately \$1,000 to 1,200. Subsequent semesters usually require enrollment fees,

supplies, books and course syllabi (approximately \$1,000). Expenses for the last semester of enrollment also include the program pin and application fees for national and state licensure/registration examinations (approximately \$350).

**Licensure/Certification Eligibility**

The American Registry of Radiologic Technologists (ARRT) requires review of any conviction, misdemeanor or felony, or a sanction by the Program regarding an academic honor code, or review of suspension or dismissal by a radiography program. This review may be conducted prior to or during the program. For more information contact the ARRT at: 1225 Northland Drive, Mendota Heights, MN 55120, (651) 687-0048, or [www.arrt.org](http://www.arrt.org).

The State Department of Public Health, Radiologic Health Branch and the American Registry of Radiologic Technology requires possession of either a Social Security number or Tax payer ID number to apply for licensure and/or registration.

**Accreditation**

Bakersfield College is accredited by the Western Association of Schools and Colleges. The Radiologic Technology Program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 N. Wacker Drive, Suite 2850, Chicago, Illinois 60606-3182, (312) 704-5300 or [www.jrcert.org](http://www.jrcert.org). The program is also approved by the State of California, Department of Public Health, Radiologic Health Branch, P.O. Box 997414, MS-7610, Sacramento, CA , 95899-7414, (916) 327-5106 or [www.cdph.ca.gov/rhb](http://www.cdph.ca.gov/rhb)

**Associate Degree Radiologic Technology Program**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of “C” or better.

The following courses are taken after students have been enrolled in the Radiologic Technology Program.

*First Summer*

Course Number	Title	Units
RADT B1a	Introduction to Radiologic Technology	2.0
RADT B1b	Patient Care	2.0
RADT B4a	Introduction to Clinical Education	1.5
	TOTAL	5.5

*First Fall Semester*

Course Number	Title	Units
RADT B2a	Radiographic Anatomy and Positioning 1	3.0
RADT B3a	Radiographic Principles 1	3.0
RADT B4b	Clinical Education 1	4.0
	General Education (if needed)	3.0
	TOTAL	10-13.0

*First Spring Semester*

Course Number	Title	Units
RADT B2b	Radiographic Anatomy and Positioning 2	3.0



RADT B3b	Radiographic Principles 2	3.0
RADT B6	Clinical Education 2	4.0
RADT B9c	Principles of Angiography	1.0
	General Education (if needed)	3.0
	<b>TOTAL</b>	<b>11-14.0</b>

*Second Summer*

Course Number	Title	Units
RADT B7	Clinical Education 3	6.5

*Second Fall Semester*

Course Number	Title	Units
RADT B2c	Radiographic Anatomy and Positioning 3	3.0
RADT B5	Radiation Physics	3.0
RADT B10	Clinical Education 4	6.5
RADT B30	Principles of Venipuncture	1.0
	General Education (if needed)	3.0
	<b>TOTAL</b>	<b>13.5-16.5</b>

*Second Spring Semester*

Course Number	Title	Units
RADT B9a	Sectional Anatomy for Medical Imaging	3.0
RADT B11	Radiographic Pathology	2.0
RADT B12	Radiobiology and Radiation Protection	2.0
RADT B13	Clinical Education 5	8.0
	<b>TOTAL</b>	<b>15.0</b>

**Principles of Fluoroscopy Job Skills Certificate**

This certificate provides fluoroscopy skills for students completing the Associate in Science Radiologic Technology program. The certificate is required as proof of completion to meet the regulations specified by the California Code of Regulations (CCR), Title 17:Public Health, Article 8: Additional School Requirements and Record Keeping, Section. 30437.

Upon successful completion of the following courses with at least a "C" grade in each course, the student will be awarded a Principles of Fluoroscopy Job Skills Certificate.

Course Number	Title	Units
RADT B50	Principles of Fluoroscopy	2.0

OR

Completion of Radiologic Technology Program courses (some hours are contained within each of the following courses. These courses are state approved by the California Department of Public Health)

RADT B2a	Radiographic Anatomy & Positioning 1	3.0
RADT B2b	Radiographic Anatomy & Positioning 2	3.0
RADT B3a	Radiographic Principles 1	3.0
RADT B3b	Radiographic Principles 2	3.0
RADT B4a	Introduction to Clinical Education	1.5
RADT B5	Radiation Physics	3.0
RADT B9a	Sectional Anatomy for Medical Imaging	3.0
RADT B9c	Principles of Angiography	1.0
RADT B12	Radiobiology and Radiation Protection	2.0

**Principles of Venipuncture Job Skills Certificate**

The purpose of this certificate is for successful completion of the Principles of Venipuncture course taught at Bakersfield College. The venipuncture regulations and requirements are part of the Health and Safety Code of California, Section 106985. The certificate is necessary for job readiness and to indicate competency for the performance of venipunctures at the job site. The State of California code requires a certificate to indicate proficiency.

Course Number	Title	Units
RADT B30	Principles of Venipuncture	1.0

Note: The clinical components of all radiologic technology courses are graded on a Pass/No Pass basis only.

Radiologic Technology students are exempt from the maximum of three Pass/No Pass units which may be taken in a semester and from the maximum of 12 Pass/No Pass units which may be applied toward the AS degree at Bakersfield College.

**REAL ESTATE**

*See Business Administration*

**REGISTERED NURSING**

*See Nursing*

**SOCIOLOGY**

**Sociology Associate in Arts Degree**

Effective Fall 2009 all courses used for meeting the requirements for degrees must be completed with a grade of "C" or better.

Sociology is the study of groups, institutions, social relationships, and social problems in contemporary society. The sociology major prepares the student for careers in law, social work, human services, urban development, law enforcement agencies, public service, counseling, mental health, teaching, and community service.

*Total Units: 20*

Required Courses: 11 units

Course Number	Title	Units
SOCI B1	Introduction to Sociology	3.0
SOCI B2	Problems in Modern Society	3.0
PSYC B5	Elementary Statistics for the Behavioral and Social Sciences	5.0

Electives: at least 9 units

SOCI B20 (same as PSYC B20)	Social Psychology	3.0
SOCI B21abcd	Special Projects	1-4.0
SOCI B28	Women in the World	3.0
SOCI B36	Sociology of the Chicano	3.0
SOCI B45	Minority Relations	3.0
ANTH B2	Cultural Anthropology	3.0

**SPANISH**

**Spanish Associate in Arts Degree**

*Total Units: 18*

Required Courses:

Course Number	Title	Units
SPAN B1ab	Elementary Spanish	5.0
SPAN B2ab	Elementary Spanish	5.0
SPAN B3	Intermediate Spanish	4.0
SPAN B4 or SPAN B10	Intermediate Spanish / Spanish for Native Speakers	4.0

**SPEECH**

*See Communication*

**THEATRE ARTS**

**Theatre Arts 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.

*Total Units: 19*

Required Courses:

Course Number	Title	Units
THEA B2ab	Elements of Acting	6.0
THEA B27	Acting Theatre Laboratory	6.0
THEA B28	Technical Theatre Laboratory	4.0
THEA B12a	Introduction to Shakespeare	3.0

**Note:** Theatre majors should enroll for at least one unit of THEA B27 or THEA B28 per semester.

Electives

Course Number	Title	Units
THEA B31	Introduction to Film Studies	3.0
THEA B32	Contemporary Film Studies	3.0
THEA B35	Introduction to Theatre	1.0
ART B1	Art Appreciation	3.0
ART B2	Basic Drawing	3.0
WOOD B1	Introduction to Woodworking Technologies	3.0

**VOCATIONAL NURSING**

*See Nursing*

**WELDING**

**Blueprint Reading and Layout for Welders Job Skills Certificate**

This certificate covers the principles of blueprint reading as it applies to welders. Emphasis is placed on the ability to visualize and interpret working drawings. Welding symbols and basic shop math are included. Layout techniques including mathematical and pipe fitting technology are covered.

Upon completion of the following courses with at least a “C” grade in each course, the student will be awarded a Blueprint Reading and Layout for Welders Job Skills Certificate.

*Total Units: 6*

Required Courses:

Course Number	Title	Units
WELD B54a	Blueprint Reading and Layout for Welders	3.0
WELD B54b	Template Development and Layout for the Welder	3.0

**Gas Metal Arc/Gas Tungsten Arc Welding/Flux Core Arc Welding Job Skills Certificate**

This certificate emphasizes welding processes of gas metal arc welding (GMAW), gas tungsten arc welding (GTAW) and flux core arc welding (FCAW). Theory and application as well as safety of these applications while welding on mild steel, aluminum and stainless steel are emphasized.

Upon completion of the following courses with at least a “C” grade in each course, the student will be awarded a Gas Metal Arc/Gas Tungsten/Flux Core Arc Welding Job Skills Certificate.

*Total Units: 7.5*

Required Courses:

Course Number	Title	Units
WELD B1a	Introduction to Oxygen Acetylene Welding and Cutting	1.5
WELD B1b	Introduction to the Welding Processes	1.5
WELD B53ab	Shielded Metal Arc Welding	3.0
WELD B74a	Introduction to GMAW & FCAW	1.5

**Shielded Metal Arc Welding Job Skills Certificate**

This certificate emphasizes welding processes from oxy-acetylene cutting and brazing through shielded metal arc welding using many different welding electrodes and all positions. Blueprint reading and pattern layouts for welding are highlighted.

Upon completion of the following courses with at least a “C” grade in each course, the student will be awarded a Shielded Metal Arc Welding Job Skills Certificate.

*Total Units: 12*

Required Courses:

Course Number	Title	Units
WELD B1a & WELD B1b & WELD B53ab & WELD B54a &	Introduction to Oxygen Acetylene Welding and Cutting / Introduction to the Welding Processes / Shielded Metal Arc Welding / Blueprint Reading for Welders and Machinists	1.5 / 1.5 / 3.0 / 3.0
WELD B54b	Template Development and Layout for the Welder	3.0

**Welding Certificate of Achievement**

*Total Units: 25.5*

Required Courses:

Course Number	Title	Units
WELD B1a	Introduction to Oxygen Acetylene Welding and Cutting	1.5
WELD B1b	Introduction to the Welding Processes	1.5

WELD B53ab	Shielded Metal Arc Welding	3.0
WELD B55ab	Structural Plate Certification	3.0
WELD B55cd	ASME Pipe Certification	3.0
WELD B65ab	Welded Steel Structures	3.0
WELD B74a	Introduction to GMAW & FCAW	1.5
WELD B74b	Introduction to GTAW	1.5
MFGT B1a	Machine Tool Processes	1.5
WELD B54a	Blueprint Reading for Welders & Machinists	3.0
INDT B10 or Equivalent	Occupational Readiness	3.0

**Industrial Technology, Welding Option Associate in Science Degree**

Total Units: 37

Select from:

Course Number	Title	Units
WELD B1a	Introduction to Oxygen Acetylene Welding and Cutting	1.5
WELD B1b	Introduction to the Welding Processes	1.5
WELD B53ab	Shielded Metal Arc Welding	3.0
WELD B55ab	Structural Plate Certification	3.0
WELD B55cd	ASME Pipe Certification	3.0
WELD B74a	Introduction to GMAW & FCAW	1.5
WELD B74b	Introduction to GTAW	1.5
WELD B54a	Blueprint Reading for Welders & Machinists	3.0
WELD B54b	Template Development and Layout for the Welder	3.0
WELD B65ab	Welded Steel Structures	3.0
MFGT B1ab	Machine Tool Processes	3.0
INDR B10	Introduction to Industrial Drawing and Graphics	1.0
INDR B11	Introduction to Computer Aided Drafting and Design (CAD)	1.0
INDT B271	Special Problems in Welding	2-3.0
INDT B10 or Equivalent	Occupational Readiness	3.0

**WOODWORKING/CABINETMAKING**

**Woodworking/Cabinetmaking Job Skills Certificate**

This certificate covers the principles of woodworking to include materials, hand tools, wood cutting machinery and wood finishing. Emphasis will be put on designs to include modular construction, new materials and processes. Advanced bidding techniques are discussed.

Upon completion of the following courses with at least a "C" grade in each course, the student will be awarded a Woodworking/Cabinetmaking Job Skills Certificate.

Total Units: 6

Select 6 units from the following courses:

Course Number	Title	Units
WOOD B1	Introduction to Woodworking Technologies	3.0
WOOD B2	Furniture and Cabinetmaking	3.0
WOOD B5	Intermediate Cabinetmaking	3.0

**Cabinetmaking Certificate of Achievement**

Total Units: 33

Required Courses:

Course Number	Title	Units
WOOD B1	Introduction to Woodworking Technologies	3.0
WOOD B2	Furniture and Cabinetmaking	3.0
CNST B1	Introduction to Construction	3.0
CNST B54a & B54b or	Cabinetmaking and Millwork	4.0
WOOD B5 & B54b or	Intermediate Cabinetmaking (3.0)	4.0
WOOD B65a & B65b	Advanced Cabinetmaking (3.0)	
WOOD B65b	Advanced Cabinetmaking (3.0)	
ENGL	Approved Course	4.0
MATH B50 or	Modern College Arithmetic & Pre-Algebra	4.0
Math Placement	Assessment Level 2 or Above	
INDR B10	Introduction to Industrial Drawing and Graphics	1.0
INDT B10 or Equivalent	Occupational Readiness	3.0

Electives: to equal at least 33 units

Course Number	Title	Units
INDT B249ab	Cooperative Work Experience Education	1-4.0
INDT B274	Special Problems in Woodworking	2-3.0
INDR B11	Introduction to Computer Aided Drafting and Design (CAD)	1.0
INDR B20a	Computer Aided Drafting and Design (CAD)	3.0
FORE B2	Natural Resources	3.0
ENGL B50	Introduction to College Composition	4.0

**Industrial Technology, Woodworking and Cabinetmaking Option Associate in Science Degree**

Total Units: 29

Required Courses:

Course Number	Title	Units
WOOD B1	Introduction to Woodworking Technologies	3.0
WOOD B2	Furniture and Cabinetmaking	3.0
WOOD B5	Intermediate Cabinetmaking	3.0
WOOD B65a	Advanced Cabinetmaking	3.0
WOOD B65b	Advanced Cabinetmaking	3.0
FORE B1	Introduction to Forestry	3.0
INDR B11	Introduction to Computer Aided Drafting and Design (CAD)	1.0
INDR B20a	Computer Aided Drafting and Design (CAD)	3.0
INDR B10	Introduction to Industrial Drawing and Graphics	1.0
CNST B1	Introduction to Construction	3.0
INDT B10 or Equivalent	Occupational Readiness	3.0

Suggested Electives

Course Number	Title	Units
FORE B2	Natural Resources	3.0
INDR B30b	Industrial Drawing	3.0
MFGT B1ab	Machine Tool Processes	3.0