

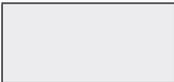
# Course Descriptions

## English, Reading, and Mathematics Classifications

Bakersfield College places students into courses with prerequisites on the basis of placement tests, previous school transcripts, and state requirements. If students have taken the college placement test or met with a counselor, the registration system will allow registration. Placement levels indicated in the first row of the chart are determined by your test scores and correspond to courses listed under the placement level. It is important to discuss program plans and high school courses with a BC counselor or advisor before registering.

Courses listed in boxes that are shaded are transfer level courses that are accepted for transfer to most four-year colleges and universities.

Placement Level	00	01	02	03	04	05	06
<b>MATH</b>							
Non-Science Track	ACDV B78	MATH B50	MATH BA	MATH BD	MATH B2 MATH B4a MATH B16 MATH B22 MATH B23 PSYC B5		
Science Track	ACDV B78	MATH B50	MATH BA	MATH BD	MATH B1A		MATH B6A
<b>ENGLISH</b>							
			See Counselor	ACDV B68	ENGL B60	ENGL B50	ENGL B1A
<b>ENGLISH AS A SECOND LANGUAGE</b>							
		See Counselor	ENSL B80	ENSL B70	ENSL B60	ENSL B50	ENGL B1A
<b>READING</b>							
		See Counselor	ACDV B91	ACDV B62	ACDV B50	ACDV B50 Recommended	LEVEL 6 COURSES
<b>READING, ENGLISH AS A SECOND LANGUAGE</b>							
		See Counselor	See Counselor	ENSL B61	ENSL B51	ENSL B31	LEVEL 6 COURSES
<b>SPEECH/LISTENING</b>							
		See Counselor	ENSL B71ab	ENSL B71cd	ENSL B21	ENSL B22	COMM B1 COMM B2 COMM B4 COMM B8

 = TRANSFER LEVEL

## COURSE DESCRIPTIONS

### Course Description Abbreviations

The following abbreviations are commonly used in the course descriptions: lect lecture; lab laboratory; demo demonstration; Repeat repeatability (see policy on course repetition); CCS Course Classification System; BC GE Bakersfield College General Education; CSU GE California State University General Education; IGETC Intersegmental General Education Transfer Curriculum. Hours are total hours for the course. Offered: F=course is offered fall semester; S=course is offered spring semester; SS=course is offered summer session. If there is no designation, the course is offered irregularly. Check with the department for information. Many classes are offered occasionally during the summer. Check the summer class schedule for additional course listings. Prerequisites are expressed as minimum requirements. (CSU) indicates transferable to California State Universities; (UC) indicates transferable to University of California.

### Course Classification System

Bakersfield College uses a course classification system that serves to describe the total educational program of the community college as required by Title 5, Section 55001. Classes currently mandated by the state are designated as: Liberal Arts and Sciences; Precollegiate-Discipline Specific; Precollegiate-Basic Skills; Occupational Education.

### Course Numbering System and Transferability of Bakersfield College Courses

Transfer courses in the Bakersfield College curriculum are *generally* numbered 1 through 49. For information about the transferability of a specific course, please see the course description. Associate Degree only courses are for the primary purpose of meeting requirements for an Associate in Arts Degree or an Associate in Science Degree and certificate programs. These courses are designated Not Transferable. Each course is listed in one of the following categories:

*Not Transferable: Not degree applicable*

*Not Transferable: Associate Degree only*

*California State University (CSU) and private colleges*

*University of California System (UC), CSU and private colleges*

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

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

elective baccalaureate credit but do not satisfy a specific course equivalent.

ASSIST.org is the official repository of articulation for California's colleges and universities. Visit [www.ASSIST.org](http://www.ASSIST.org) to see which Bakersfield College courses are articulated.

### Variable Topics Courses and UC Transferability

Variable topics courses are also called "Independent Studies," "Special Studies," "Special Topics," "Internships," etc. UC credit for variable topics courses is given only after a review of the course outline by the enrolling UC campus. This usually occurs after transfer and may include recommendations from faculty. UC credit is not given for variable topics courses in Journalism, Photography, Health, Business Administration, Architecture, Administration of Justice (Criminology) or Library Departments due to credit restrictions in those areas.

## ACADEMIC DEVELOPMENT

### ACDV B5 Tutor Training and Practicum (2 units)

Essential human relations skills and methods of effective tutoring, placing these skills into practice with tutees referred by the Tutor Coordinator. Student may be referred by subject area instructor(s). **Prerequisite:** Minimum grade of 'B' in subject to be tutored or approval of subject area instructor or evaluation of prerequisites by the Tutor Trainer and/or Tutor Coordinator. **Recommended:** Reading Level 6. **Hours:** 18 lect/disc, 54 supervised tutoring. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

### ACDV B5a Tutor Training and Practicum (1 unit)

This course is designed for returning tutors to build tutoring skills. Essential human relations skills and methods of effective tutoring, placing these skills into practice with tutees referred by the Tutor Coordinator. Student may be referred by subject area instructor(s). **Prerequisite:** Minimum grade of 'B' in subject to be tutored or approval of subject area instructor or evaluation of prerequisites by the Tutor Trainer and/or Tutor Coordinator. **Recommended:** Reading Level 6. **Hours:** 9 lect/disc, 27 supervised tutoring. **Repeat:** 3. **Offered:** F,S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

### ACDV B50 Reading for Academic Success (3 units)

Recommended for students who have not met the reading competency requirements at entrance or for those who wish to improve their skills in academic reading. Emphasizes critical reading, critical thinking, and reading flexibility with college-level material (which may include poetry, short stories, essays, textbook chapters). Focuses on application, analysis, synthesis, and evaluation in both oral and written form. Includes responding, summarizing, and outlining. **Prerequisite:** Reading Level 4 or successful completion of ACDV B62 or ENSL B61. **Hours:** 54 lect/disc. **Offered:** F, S, SS. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

**ACDV B55 First Year Student Success (0.5 unit)**

Introduces the college's academic, social, and physical environments and promotes personal development necessary for student success. To increase their probability of college success, students will locate, navigate, and utilize the campus' academic and student services resources. The course covers note-taking, test-taking, textbook reading, effective communication, and time-management skills necessary for college success. **Hours:** 9 lect/disc. **Repeat:** 2. **Offered:** F. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

**ACDV B62 Developing Basic Reading Skills (3 units)**

Recommended for students who need to improve vocabulary and reading comprehension and flexibility. Focuses on demonstration and application of reading strategies as they apply to textbook reading. Includes paragraph analysis, study strategies such as SQ3R and outlining, and vocabulary building techniques. Practice in application and analysis level thinking skills. **Prerequisite:** Reading Level 3 or successful completion of ACDV B91 or ENSL B61. **Recommended:** English Level 3 or ENSL B80 with a grade of C or better or concurrent enrollment in ACDV B68 or ACDV B201a. **Hours:** 54 lect/disc. **Offered:** F, S, SS. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

**ACDV B66 Student Success (1-3 units)**

Covers the development of successful personal behaviors; interpersonal skills development, effective listening and note taking, time management, textbook reading, math computation, and test taking skills necessary for success in connected core courses. **Recommended:** Concurrent enrollment in ACDV B280 or B281. **Hours:** 18 lect for each unit. **Repeat:** 3. **CCS:** Precollegiate - Basic Skills. **Not Transferable:** Not degree applicable.

**ACDV B68 Basic Writing Development (4 units)**

Designed to prepare students for success in English B60 by developing sentence writing skills in the context of a paragraph. Emphasizes writing practice and the review of basic grammatical structures, writing mechanics, and proper language usage. **Prerequisite:** English Level 3 or successful completion of ENSL B80. **Recommended:** Reading Level 3 or successful completion of ACDV B91, completion of or concurrent enrollment in ACDV B201b. **Hours:** 72 lect/disc. **Offered:** F, S, SS. **Repeat:** 1. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

**ACDV B70a-f Study Skills (0.5 unit each. Limit 3 units)**

Students may take any or all of the six mini-courses offered. Each half-unit course is designed to give practical training in studying effectively for college classes. Students work interactively in small groups, whole class and independently through guided instruction and hands-on activities to improve skills in the following areas: Topics: B70a-Time Management; B70b-Notetaking; B70c-Textbook Reading; B70d-Test Taking; B70e-Memory; B70f-Vocabulary. (Offered for Pass/No Pass

grading only). **Recommended:** Reading Level 4 or satisfactory completion of ACDV B62. **Hours:** 9 lect, 6 lab arranged for each 0.5 unit. **Offered:** F, S, SS. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

**ACDV B78 Understanding Basic Math (3 units)**

This course provides an emphasis on basic arithmetic operations including whole numbers, fractions, decimals and percents to increase probability of success in future math courses. **Prerequisite:** Qualifying score on math placement assessment. **Recommended:** Reading Level 3 or successful completion of ACDV B91. **Hours:** 54 lect. **Offered:** F, S, SS. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

**ACDV B91 Communication Skills (3 units)**

Provides classroom and prescriptive training in vocabulary development, listening, responding (both orally and in writing), basic study habits, and reading. Practice in knowledge, comprehension, and application levels of thinking. Supervised practice within the class. Individual prescriptions may include a broad range of communication skills or be limited to specific problems. **Prerequisite:** Reading Level 2. **Recommended:** English Level 3 and concurrent enrollment in ACDV B201a. **Hours:** 54 lect. **Offered:** F, S, SS. **Repeat:** 1. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

**ACDV B190 Assistive Technology for Students with Disabilities (.5 units)**

Provides individual computer access assessment. Based on the findings, students are trained on the appropriate access technologies (text-to-speech, voice recognition, reading and writing tools, etc.). Designed to teach the fundamental access technologies needed for the student to complete writing assignments, web search projects, and to be independent in other courses. **Hours:** 9 lect. **Offered:** F, S. **Repeat:** 3. **CCS:** Precollegiate-Basic Skills. **Not Transferable:** Not degree applicable.

**ACDV B195 Word Processing for Students With Disabilities (3 units)**

Fundamentals of word processing using methods and materials designed for students with various disabilities. **Recommended:** Reading Level 2. **Hours:** 54 lect. **Offered:** F, S, SS. **Repeat:** 1. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

**ACDV B201ab Communication Skills (0.5-1 units, limit 8 units)**

Individually prescribed lessons in spelling, reading, vocabulary development, study skills, critical thinking and/or English. Supervised repetition and practice in the laboratory on assigned tasks which may range from general communication skills to specific problems. **Hours:** 27 - 54. Open entry/open exit. **Offered:** F, S, SS. **Repeat:** 3. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

**ACDV B201A Reading**  
**ACDV B201B Writing**

**ACDV B280 Supervised Tutoring (0 units)**

Provides tutoring in various academic subjects, conducted in a designated learning center, to augment classroom instruction. Referral by subject-area instructor, counselor, or tutor trainer is suggested. **Hours:** 1-54 individualized instruction or supervised lab. Open entry/open exit. **Offered:** F, S, SS. **Repeat:** Unlimited. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

**ACDV B281abc Supervised Tutoring-Computer (0 units)**

Provides tutoring in various academic subjects, conducted in a computer lab, to augment classroom instruction. **Hours:** 1-85 individualized instruction and supervised lab. Open entry/open exit. **Offered:** F, S, SS. **Repeat:** Unlimited. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

**ACDV B281a Reading**  
**ACDV B281b Writing**  
**ACDV B281c Mathematics**

**ACDV B292 Spelling (0.5-1 units. Limit 2 units)**

Recommended for students who have persistent spelling problems. Individually prescribed laboratory work with audio tapes, computers, and exercises. **Hours:** 27-54 lab. Open entry/open exit within a semester but not beyond a semester. **Offered:** F, S. **Repeat:** 3 or until 2 units is reached. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

**ACCOUNTING**

*See Business Administration*

**ADMINISTRATION OF JUSTICE**

*Note: ADMJ courses numbered B1 through B12 have been changed to CRIM and fall under Criminal Justice. The following courses are Public Safety Training courses. For further information call the office of Public Safety Training Programs at 395-4044.*

**ADMJ B60 PC 832, Arrest and Control Techniques (1 unit)**

Introduces methods and regulations used by peace officers regarding the powers of arrest and laws of search and seizure. Students will engage in weaponless self defense and physical arrest activities. Designed to meet the requirements of California Penal code section 832 which establishes a minimum mandatory standard of training for peace officers in the state of California. **Hours:** 30 lect, 10 lab. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**ADMJ B61 PC 832 Firearms Training (PC 832) (0.5 unit)**

Provides students with the competencies required for certification by Peace officer Standards and Training (P.O.S.T.) for Penal Code 832, Firearms. Students will engage in the use of firearms which will include handgun familiarization, safety, care, cleaning and storage, and firearms range qualification. Per Penal Code section 13511.5, students must obtain written clearance from the California Department of Justice verifying that they are not prohibited from possessing firearms. **Prerequisite:** ADMJ B60. **Hours:** 8 lect, 16 lab. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**ADMJ B62 Campus Security Supervisor (1 unit)**

Provides students with the required competencies in accordance with SB1626. **Hours:** 16 lect, 16 lab. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**ADMJ B63 Bureau of Security and Investigative Services Occupational License (BSIS-Security Guard Course) (0.2 units)**

Provides the student with the knowledge and skills to pass the State of California mandated exam for a Security Guard card and to function at the entry level of the security profession. This class meets the certification requirements for the Bureau of Security and Investigative Services from the California State and consumer Services Agency. **Hours:** 8 lect. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**ADMJ B65 Emergency/Commercial Vehicle License Preparation (1 unit)**

Designed to prepare students for taking the California Class A/B written driving test, thereby enabling the successful examinee to obtain a California Class A/B learner permit. **Hours:** 24 lect, 16 lab. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**ADMJ B68 Peace Officers' Basic Academy (P.O.S.T.) (16 units)**

Provides students with competencies set forth by P.O.S.T. to obtain a position as an entry-level peace officer. Covers introduction to law enforcement, administration of justice, criminal law, evidence and investigation, community-police relations, patrol procedures, traffic control, juvenile procedures, physical fitness, defensive tactics, firearms, first aid and CPR, vehicle operations, domestic violence, field training and evaluation, and other related basic law enforcement topics. **Hours:** 960 lect/lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**ADMJ B69 Public Safety Dispatcher (4 units)**

Provides students with the required competencies and certifications for P.O.S.T. Public Safety Dispatcher. **Hours:** 90 lect, 30 lab. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**ADMJ B71 Special Topics (0.5 - 3 units)**

Various mandated training topics required by P.O.S.T. **Hours:** 9 lect. for each 0.5 unit. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**ADMJ B78 Bakersfield Police Department Trainee Orientation (6 units)**

The BPD POST Academy graduate trainee will have an understanding of the intra-departmental procedures and policies of the Bakersfield Police Department. **Prerequisite:** ADMJ B68. **Hours:** 160 lect. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**ADMJ B80 Law Enforcement Academy Instruction (1 unit)**

The student will have an understanding of the methods of delivery of instructional material, use of visual aids, evaluation and remediation procedures. **Hours:** 26 lect, 14 lab. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**ADMJ B81 Special Topics for Security Guards (0.2 unit)**

Provides the required training security guards must complete within six months of employment as a security guard. Also covers the annual review and practice of security guard skills. This course meets the training requirements as set forth by the California Department of Consumer Affairs, Bureau of Security and Investigative Services. **Hours:** 8 lect for each topic. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**AGRICULTURE**

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

**AGRI B1 Agriculture, Environment and Society (3 units)**

Core agriculture course; required of all agriculture majors. The sociology of agriculture presented through an examination of relationships between societies and their environments, economics, and agriculture. Emphasis on the analysis of agriculture's use of technology and the corresponding impact on the environment, economy and society. Satisfies the 0.5 unit educational planning requirement for graduation from Bakersfield College. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. BC GE D.2; CSU GE D.7.

**AGRI B49 Agriculture Leadership Training (2 units)**

Supervised field work related to lecture instruction including: agricultural competitions; judging contests; livestock shows; recruiting programs; and youth activity planning, preparation and execution. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect, 54 lab. Field trips required. **Offered:** F, S. **Repeat:** 3. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**AGRI B70 Topics in Farm and Ranch Skills (2 units)**

Development of hands-on farm and ranch skills. Hands on introduction of skills utilizing the following areas; crops, fruit production, livestock production, agricultural mechanics, farm management, landscape horticulture and natural resources. **Hours:** 108 lab arranged. **Repeat:** 3. **CCS:** Occupational Education. **Not Transferable:** Associate degree only.

**AGRI B251 Modern College Arithmetic (2 units)**

A general review of arithmetic, including the fundamental operations of addition, subtraction, multiplication and division of whole numbers, fractions, decimals, ratio, proportions and percents. **Hours:** 64 lab. Open entry/open exit. **Offered:** F, S, SS. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable. Not open to students who have taken MATH B251.

**AGRICULTURAL BUSINESS MANAGEMENT****AGBS B2 Agricultural Economics (3 units)**

Core agriculture course; required of all agriculture majors. The place of agriculture and farming in the economic system; basic economic concepts and problems of agriculture; pricing and marketing problems, factors of production; state and federal farm programs affecting the farmer's economic position. **Prerequisite:** Successful completion of or concurrent enrollment in MATH BA/B200A. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. BC GE D.2; CSU GE D.2.

**AGBS B4 Computer Application in Agriculture (3 units)**

Operation of computer systems and equipment in agriculture. Emphasizes use of personal computers and software programs in Outlook, Word, Excel, PowerPoint, Access, and FrontPage. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 27 lab. **Transferable:** CSU and private colleges.

**AGBS B6 Agriculture Sales and Promotion (3 units)**

Covers the processes involved in moving food and fiber from the producer to the consumer. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**AGBS B52 Economics in Agriculture (3 units)**

Microeconomic principles of resource allocation, production, cost analysis, and market price equilibrium with application to farms and agribusiness firms; supply and demand and elasticities of supply and demand in commodity pricing under perfect and imperfect competition; survey of agricultural marketing, policies, and international economics. **Recommended:** Reading 5 or 6. **Hours:** 54 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

## ANIMAL SCIENCE

### ANSC B1 Introduction to Animal Science (3 units)

A survey of the livestock industry, animal uses and products. Emphasis is on the origin, characteristics, adaptation, production and contribution of the major farm animals and their relationship to the agriculture industry and human culture development. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 36 lab. Field trips required. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. BC GE B.1

### ANSC B2 Beef Production (3 units)

Defines and Appraises all segments of the beef industry focusing on production, reproduction, marketing, and processing. History and development of important breeds and their contribution to the U.S. beef industry will be emphasized. Selection, nutrition health management, handling, and processing will be defined, analyzed, and applied. **Recommended:** Reading Level 5 or 6 and Algebra. **Hours:** 36 lect, 54 lab. Field trips required. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### ANSC B3 Sheep Production (3 units)

Defines and appraises all segments of the sheep industry focusing on production, reproduction, marketing, and wool. History and development of important breeds and their contributions to the U.S. sheep industry will be emphasized. Selection, nutrition, health management, handling, and processing will be defined, analyzed, and applied. **Recommended:** Reading Level 5 or 6 and Algebra. **Hours:** 36 lect, 54 lab. Field trips required. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### ANSC B4 Dairy Production (3 units)

Defines and appraises all segments of the dairy industry focusing on production, reproduction, marketing and milk/dairy processing. History and development of important breeds and their contribution to the U.S. dairy industry will be emphasized. Selection, nutrition, health management, handling, and processing will be defined, analyzed and applied. **Recommended:** Reading Level 5 or 6 and Algebra. **Hours:** 36 lect, 54 lab. Field trips required. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### ANSC B5 Swine Production (3 units)

Application of the principles of nutrition, physiology, herd selection, breeding, and marketing to swine production and management. Structure of the industry, enterprise establishment, systems of production, production practices and herd improvement programs will be discussed. Evaluation of production responses and economic returns will be defined, analyzed, and applied. **Recommended:** Reading Level 5 or 6 and high school algebra with a grade of "C" or better. **Hours:** 36 lect. 54 lab. Field trips required. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### ANSC B6 Applied Animal Nutrition (4 units)

Covers fundamentals of feeding livestock, including feed composition, feed nutrients and values, digestive systems of major livestock species and their utilization of feedstuffs, ration balancing, computer analysis of feed, and least cost formulation. **Recommended:** Reading Level 5 or 6 and Algebra. **Hours:** 54 lect, 54 lab. Field trips required. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### ANSC B7 Animal Diseases (3 units)

Covers major, common diseases of farm livestock, focusing on the cause, symptoms, treatment, and prevention of the specific diseases. Students will learn fundamentals of the immune system and use of vaccines and pharmaceuticals. Safe use, particularly in food animals, is stressed. **Recommended:** Reading Level 5 or 6 and Algebra. **Hours:** 54 lect. Field trips required. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### ANSC B10 Horse Production (3 units)

Defines and appraises all segments of the horse industry focusing on production, reproduction, selection, nutrition, behavior, handling, and safety. History and the development of important breeds and their contribution to the U.S. horse industry will be emphasized. **Recommended:** Reading Level 5 or 6 and Algebra. **Hours:** 36 lect, 54 lab. Field trips required. **CCS:** Occupational Education. **Transferable:** CSU and Private colleges.

### ANSC B11 Livestock Selection and Evaluation (3 units)

Application of objective and subjective measurements to establish economic value of livestock (includes use of ultrasound technology). Establishes the relationship of live animal traits to carcass quality and yield, production efficiency, breeding and market stock performance, and production records. **Hours:** 36 lect, 54 lab. Field trips required. **Repeat:** 3. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.

### ANSC B20 Companion Animal Care (4 units)

Introduction to basic care and handling of common domestic companion animal species, handling and restraint, nutrition, reproductive processes, anatomy and physiology, diseases and animal/human companionship issues will be stressed. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 54 lab. Field trips required. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

### ANSC B22 Animals and Society (3 units)

Deals with the human/animal bond and the positive/controversial aspects of animals in human lives. Includes topics covering the scientific and psychological implications of animals in our society. Students will encounter and analyze social and ethical issues that affect society and veterinary medicine. **Recommended:** Reading Level 5 or 6. **Hours:** 54

lect. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. Elective credit only.

### **ANSC B51 Basic Animal Science (3 units)**

History of the animal science industry in the United States. Topics include production, marketing, breeds and nutrition. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **ANSC B60 Bovine Reproduction (2 units)**

Beef and dairy cattle reproduction management. Emphasis is on semen evaluation, artificial insemination technique, estrus synchronizing, reproductive diseases and embryo development and transfer. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect, 54 lab. Field trips required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **ANSC B71 Diseases of Beef and Dairy Cattle (1 unit)**

Common disease problems in beef and dairy cattle with emphasis on Kern County. Includes cause, symptoms, prevention and recommended treatment. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect. Field trips required. **Repeat:** 1. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **ANSC B72 Equine Health (1 unit)**

Covers cause, symptoms, treatment, and prevention of the major common diseases affecting horses, specifically those of economic importance in California. Emphasizes practical application of therapy in maintaining horse health. **Recommended:** Reading Level 5 or 6 and Algebra. **Hours:** 18 lect and selected field trips. Field trips required. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **ANSC B74 Equine Nutrition (1 unit)**

Designed to meet the needs of horse owners and students seeking the knowledge necessary to meet the nutritional requirements of their horses. Fundamentals of feed values and nutritional requirements of the horse will be covered. Practical application of feed and cost management, as well as discussion of important nutrition related diseases of the horse will be emphasized. **Recommended:** Reading level 5 or 6 and Algebra. **Hours:** 18 lect and selected field trips. Field trips required. **Offered:** F. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **ANSC B76 Equine Reproduction (1 unit)**

Equine Reproductive Management: Emphasis on understanding the male and female equine reproductive tracts, anatomy, physiology, endocrinology of cycles, artificial insemination techniques, embryonic development, and reproductive diseases. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect. Field trip required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **ANSC B78 Horsemanship (2 units)**

Instruction in basic horsemanship skills, including handling, grooming and riding English and/or Western style. Course emphasizes safety for horse and riders. No experience, horse, or equipment required. Beginning to advanced riders. Students have option of participating in intercollegiate Horse Show Association competitions. **Hours:** 108 activity. Field trips required. **Repeat:** 3. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **ANSC B80 Introduction to Veterinary Technology (2 units)**

An introductory course intended to give the student an overview of statutes, regulations, and ethics pertaining to Registered Veterinary Technicians, and introduction to medical terminology as it pertains to animal health care, and an introduction to record keeping techniques and requirements. **Recommended:** ANSC B20 (may be taken concurrently). **Hours:** 36 lect. Field trip required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **ANSC B82 Anatomy and Physiology of Domestic Animals (2 units)**

Covers the anatomical and physiological similarities and differences of domestic animals. Integumentary, cardiovascular, respiratory, reproductive, gastrointestinal and neurological systems. Basic nutritional requirements of domestic animals will be presented in context of relating to development and health. **Hours:** 36 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **ANSC B84 Small Animal Diseases (1.5 units)**

Presents knowledge of diseases in small animals, including diagnosis, prevention, and treatment programs. Includes instruction in physical diagnosis and discussion of tests and procedures needed for proper diagnosis. Also covers animal husbandry procedures relating to disease prevention. Disease entities to be taught include: infectious, nutritional, endocrine, and metabolic conditions. **Prerequisite:** ANSC B80 and B82. **Hours:** 30 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **ANSC B85 Large Animal Diseases (1.5 units)**

Covers diseases in large animals, including diagnosis, prevention, and treatment programs. Includes instruction in physical diagnosis and discussion of tests and procedures needed for proper diagnosis. Instruction in animal husbandry procedures relating to disease prevention is also included. Disease entities taught include infectious, nutritional, endocrine, mechanical and metabolic conditions. **Prerequisite:** ANSC B80 and B82. **Hours:** 30 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **ANSC B86 Pharmacology for Veterinary Technicians (1.5 units)**

Intended to instruct students with required knowledge of pharmacological and biological agents used in veterinary

medicine, including calculations, classifications, action, and methods of administration, dispensing and labeling. FDA, USDA, and DEA guidelines regarding restricted and scheduled drugs, as they relate to small animals and residue avoidance in food animals will be discussed. **Prerequisite:** ANSC B80 and B82. **Hours:** 30 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **ANSC B88 Surgery, Dental and Anesthesiology for Veterinary Technicians (1.5 units)**

Instruction in the identification and care of instruments, the importance of asepsis and sterilization techniques, surgical pack preparation, and draping techniques. Instruction of surgical and dental procedures and procedures for general and local anesthesia for veterinary medicine will be covered. **Prerequisite:** ANSC B80 and B82. **Hours:** 30 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **ANSC B90 Emergency Medicine, Surgery/Nursing Procedures for Veterinary Technicians (2 units)**

Provides the student with knowledge of emergency procedures for veterinary technicians, including client management, triage, supportive therapy, medicine, and surgery for the peracutely ill patient. Nursing procedures as they relate to emergency and non-emergency care will be presented, including bandaging, splinting, casting, and fluid therapy. **Prerequisite:** ANSC B80 and B82. **Hours:** 36 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **ANSC B92 Clinical Pathology for Veterinary Technicians (2 units)**

Includes lectures in microbiology, parasitology, cytology, urinalysis, hematology, serology, and pathology. The student will be instructed in normal and abnormal test values. Covers the understanding, reading and application of specific test results. Also covers specimen handling and necropsy techniques. **Prerequisite:** ANSC B80 and B82. **Hours:** 36 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **ANSC B94 Caged Birds, Laboratory, and Exotic Animal Medicine (2 units)**

Covers anatomy, physiology, disease descriptions, and identification of caged birds, laboratory, and exotic animals. Instruction in restraint, physical examination, anesthesia, surgery, specimen collection, species identification, and the legal ramifications of owning exotic animals. **Prerequisite:** ANSC B80 and B82. **Hours:** 36 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **ANSC B96 Radiology, Ultrasound, and Diagnostic Imaging for Veterinary Technology (1.5 units)**

Course is intended to give the student a sound knowledge of the techniques used in physical imaging in veterinary medicine. Includes history, statutes, and regulations, positioning techniques, developing, and film and screen characteristics.

**Prerequisite:** ANSC B80 and B82. **Hours:** 30 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

## **CROP SCIENCE**

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

### **CRPS B1 Principles of Crop Production (3 units)**

Fundamental practices for field, vegetable, tree, and vice crops; basic botany, classification of plants, soils, seeding, fertilizers, irrigation, pest control, and harvest plus specific practices for crops grown in the San Joaquin Valley. Students who have previously successfully completed the course may repeat when needed for state mandated pest control license. Students must obtain a special override from the Admissions and Records Office. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 36 lab. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. BC GE B.1

### **CRPS B2 Forage Crops (3 units)**

Study of important forage crops of California and the nation; species, varieties, adaptations, production methods, feeding qualities, and processing. Students who have previously successfully completed the course may repeat when needed for state mandated pest control license. Students must obtain a special override from the Admissions and Records Office. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect, 54 lab. Field trips required. **Offered:** alternate S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

### **CRPS B3 Integrated Pest Management (3 units)**

Fundamental principles of pest control and management in commercial agriculture. Includes pestilence diagnosis and methods of chemical, physical, and biological control. Students who have previously successfully completed the course may repeat when needed for state mandated pest control license. Students must obtain a special override from the Admissions and Records Office. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect, 54 lab. Field trips required. **Offered:** F. **CCS:** Occupational Education. Repeat: 3. **Transferable:** CSU and private colleges. Note: Elective credit only. BC GE B.1

### **CRPS B4 Vegetable Production (3 units)**

Principles and practices of vegetable crop production. Methods used in seeding, propagation and culture of vegetables and the application of the principles underlying vegetable production techniques. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect, 54 lab. Field trips may be required. **Offered:** F. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. Note: Elective credit only.

### **CRPS B10 Plant Biology (4 units)**

An introductory course covering the fundamental principles of plant science with emphases on structure, function, reproduction, and development of seed plants. The principles are related to the practices of applied plant biology in crop

production, forestry, and horticulture. **Recommended:** Reading level 5 or 6. **Hours:** 54 lect, 54 lab. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. Note: Not open to students who have taken BIOL B10. BC GE B.1; CSU GE B.2, B.3; IGETC 5.B.

### **CRPS B51 Introduction to Crop Production (3 units)**

Introduction to the crop science industry in Kern County, California and the nation. Topics include basic botany, vegetative growth, plant classification and marketing of crops. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

## **ENVIRONMENTAL HORTICULTURE**

### **ORNH B1 Introduction to Ornamental Horticulture (3 units)**

Survey of the ornamental horticulture industry, including floriculture, nursery production, retail nurseries, landscaping. Career possibilities explored. Overview of basic botany concepts. **Hours:** 36 lect, 54 lab. Field trips required. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **ORNH B2 Fundamentals of Nursery Management and Plant Production (3 units)**

Commercial nursery operation. Propagation media, nursery designs, propagation, structures, seedage, cuttage, plant structure, rooting aids, transplanting, stepping up, and potting. Principles of sexual and asexual propagation. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect, 54 lab. Field trips required. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **ORNH B3 Landscape Installation and Maintenance (3 units)**

Covers the planning, installation and maintenance of landscapes in Kern County and California. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect, 54 lab. Field trips required. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **ORNH B4 Plant Propagation (3 units)**

Principles of sexual propagation, seedage, and asexual propagation; budding, grafting, cuttings, layering, division and separation. Principles of tissue culture. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect, 54 lab. Field trips required. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **ORNH B5 Nursery Management (3 units)**

Commercial nursery operations. Propagation, propagation media, nursery design, propagation structures, plant structure, rooting aids, transplanting, stepping up and potting greenhouse and nursery plants. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect, 54 lab. Field trips required. **CCS:** Occupational

Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

### **ORNH B6 Ornamental Plant Identification - Ground Covers, Vines, and Dwarf Shrubs (3 units)**

Identification, habits of growth, culture and landscape use of dwarf shrubs, vines, ground covers, annuals, and biennials, adapted to the Central Valley of California and the surrounding mountains. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect, 54 lab. Field trips required. **Offered:** F. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.

### **ORNH B7 Ornamental Plant Identification - Large Shrubs, Small Trees, Large Trees and Palms (3 units)**

Identification, habits of growth, culture and landscape use of large shrubs, small trees, large trees and palms adapted to the Central Valley of California and the surrounding mountains. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect, 54 lab. Field trips required. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.

### **ORNH B8 Introduction to Landscape Design (3 units)**

Study of the need for landscaping in modern man's environment. Covers residential application, basic drafting, site and user analysis. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect, 54 lab. Field trips required. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **ORNH B35 Ornamental Horticulture (1 unit)**

Identification, habits of growth, culture and landscape use of plants commonly found on school campuses and adapted to the Central Valley of California. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect. Field trips required. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **ORNH B36 Beginning Floral Design (3 units)**

Introduction to the fundamentals of theory, techniques and skills currently practiced in the floral industry. Includes applied art principles, cut flower care, handling practices, proper use of florist tools and materials, pricing of floral products and use of current floral business technology. Includes constructing corsages, floral arrangements, and foliage plant items, which meet floral industry standards. **Recommended:** Reading level 5 or 6. **Hours:** 36 lect, 54 lab. Field trips may be required. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. **Note:** Elective credit only. BC GE C.

### **ORNH B51 Basic Ornamental Horticulture (3 units)**

Introduction to the ornamental horticulture industry including career opportunities. Overview of basic botany and soil structure. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**ORNH B78 Landscape Maintenance/Laws and Regulations of Pest Control (1 unit)**

Designed for students interested in securing the landscape pest control certificate required of all professional landscape gardeners who apply chemicals. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**ORNH B79 Landscape Pest Management (1 unit)**

For students interested in the Qualified Applicator Certificate. Includes information about the certification examination, turf pest, insects and mite control, weed control, and mushroom control in lawns. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**ORNH B80 Pesticide Application and Safety (1 unit)**

Designed for professional applicators, advisors or students entering the field of pesticide management. Equipment and safe procedures involving supervision, minimum exposure, fitting/use of a respirator and label interpretation. Application techniques, including right-of-way, non-crop weed control and soil incorporated insecticides. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**FORESTRY**

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

**FORE B1 Introduction to Forestry (3 units)**

The ecological, economic and sociological basis of forest management interrelated with the management of other resources. Topics include a history of forestry in America, the economics of forestry, forestry and national planning and forest uses. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **Offered:** F. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.

**FORE B2 Natural Resources (3 units)**

Survey of our natural resources and the conservation of those uncaptured natural stores which are useful to humankind. Resources covered are water, soil, air, forests, grasslands, wildlife, oceans, minerals and energy. Ecology, waste management and human resources are also covered. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. BC GE B.1; CSU GE E.

**FORE B3 Wildlife Management (3 units)**

The practice of wildlife management. Foundations of wildlife production. The identification, life histories and ecology of selected important wildlife species - mammals including fur bearers, water fowl and fish. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **Offered:** S. **CCS:**

Occupational Education. **Transferable:** CSU and private colleges.

**FORE B4 Wildlife Law Enforcement (3 units)**

A brief history of the development of wildlife law enforcement. State functions and jurisdiction; federal jurisdiction, federal wildlife laws, federal versus state jurisdiction; rights of the private citizen. Types of violations and the role of the law enforcement officer. The function of the officer, including arrests, preparation of evidence, interviewing and court appearances. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**FORE B5 Identification of California Wildlife (3 units)**

A survey of game birds, fish and mammals of California and the Western United States. Characteristics of game animals and protected species. Practices identifying animals in their environment. Emphasizes protecting species which are in danger of extinction. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**FORE B6 Forestry Skills (3 units)**

Survey of the forestry, wildlife and natural resources management industries. Careers, job requirements, terminology, employment opportunities and the identification and/or use of selected tools and equipment. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect, 90 lab. Field trips required. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**FORE B7 Wildland Fire Management (3 units)**

Covers the physical theories of wildland fire, the methodology of wildland fire suppression, pre-suppression, and post-fire suppression and equipment. The practice of fire ecology and the use of prescribed control burns to maintain and improve our nation's forests and rangelands. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trip required. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**FORE B51 Principles of Forestry (3 units)**

History and uses of forests in America. Topics include forestry protection, terminology, legislation and production. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**NATURAL RESOURCES MANAGEMENT****NRES B1 Range Management (3 units)**

Basic range management and improvement practices. Proper utilization of rangeland resources. Overview of multiple use principles. Maintenance and improvement of range plant communities. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect, 54 lab. Field trips required. **Offered:** S. **CCS:**

Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

### **NRES B2 Parks and Outdoor Recreation (3 units)**

Introduction to national, state, county, city, and private park systems. History, philosophy, policy and principles of the formation, administration and functioning of recreational units at the park, district and regional levels.

**Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **Offered:** F. **CCS:** Occupational Education.

**Transferable:** CSU and private colleges.

## **SOIL**

### **SOIL B1 Introduction to Soil Science (3 units)**

Core agriculture course; required of all agriculture majors. Problems pertaining to the soil which are important in the profitable production of plants, including physical properties of soils, fertilizers, crop rotation, erosion and salt control, cultivation problems and irrigation. **Recommended:** Reading Level 5 or 6 and MATH BA. **Hours:** 36 lect, 90 lab. Field trips required. **Offered:** F, S. **CCS:** Occupational Education.

**Transferable:** UC, CSU and private colleges. BC GE B.1

## **AIR CONDITIONING & REFRIGERATION**

### **ACRF B54a-B54b Air Conditioning and Refrigeration (3-3 units)**

Principles of refrigeration and air conditioning applied to domestic and commercial systems. Repair and maintenance of major systems components and controls. **Prerequisite:** ACRF B54b; ACRF B54a. **Recommended:** ACRF B54a: Math BA or equivalent (may be taken concurrently), ELET B1. **Hours:** 18 lect, 90 lab for each 3 units. **Offered:** B54a F; B54b S. **Repeat:** 1. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

## **AMERICAN SIGN LANGUAGE**

### **ASL B1 American Sign Language I (5 units)**

Fundamentals of American Sign Language (A.S.L.). Introduces the history (deaf) culture, basic vocabulary and grammatical structure, techniques of signing, and non-verbal aspects of American Sign Language. Outside assignments require practice with video tape programs. **Recommended:** Reading Level 5 or 6. **Hours:** 90 lect. Field trips required. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 6.

### **ASL B2 American Sign Language II (5 units)**

A continued study of the fundamentals of American Sign Language. Emphasizes grammatical structure, conceptual accuracy, vocabulary, placement of signs, fingerspelling and numerical proficiency. Introduces the spectrum of sign language, idiomatic expressions, and topical areas relating to deaf culture. **Prerequisite:** ASL B1. **Hours:** 90 lect. Field trips required. **Offered:** F, S. **CCS:** Liberal Arts & Sciences.

**Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 3.B, 6.

### **ASL B3 Advanced American Sign Language Part 1 (5 units)**

Emphasizes advanced conversational fluency in ASL; followed by intensive work on comprehensive skills and grammatical structure. Instruction in conceptual accuracy and translation of English idioms to American Sign Language. Discussion of various aspects of American deaf culture and dynamics of the deaf community. **Prerequisite:** ASL B2. **Hours:** 90 lect. Field trips required. **Offered:** F, S. **CCS:** Liberal Arts & Sciences..

**Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 3.B, 6.

### **ASL B4 Advanced American Sign Language Part 2 (3 units)**

Emphasis is on receptive and expressive conversational fluency and specific linguistic aspects of ASL. Also includes issues pertinent to deaf culture. **Prerequisite:** ASL B3. **Hours:** 54 lect. Field trips required. **CCS:** Liberal Arts & Sciences.

**Transferable:** UC, CSU and private colleges. IGETC 6.

### **ASL B6 American Deaf Culture (3 units)**

Introduction to the philosophical components of American deaf culture, such as types and causes of deafness, and the deaf community as defined according to language, values, culture, and attitudes. Included is a study of deaf advocacy, services, education, and legal rights of deaf people. **Prerequisite:** ASL B1. **Hours:** 54 lect/disc. Field trips required. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

### **ASL B7 Literature and Performance (3 units)**

Exploration and analysis of storytelling, folklore, poetry, and music of the American Deaf community. Analysis and interpretation of musical lyrics into visual concepts; study and performance of ASL poetry, hand-shape and ABC stories. Study of Deaf folklore and other forms of "oral" storytelling traditions. Performance required. **Prerequisite:** ASL B3 (may be taken concurrently). **Hours:** 54 lect. Field trips required. **Repeat:** 2. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. **Note:** Elective Credit only.

## **ANTHROPOLOGY**

### **ANTH B1 Physical Anthropology (3 units)**

Introduction to the biocultural study of humans. Emphasizes principles of evolutionary science and molecular and population genetics for understanding human and nonhuman evolution and diversity. Topics include fossil evidence for human and nonhuman primate evolution, nonhuman primate behavior, and human variation. **Recommended:** Reading Level 5 or 6, English Level 5. **Hours:** 54 lect. **Offered:** F or S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE B.1; CSU GE B.2; IGETC 5B.

**ANTH B2 Cultural Anthropology (3 units)**

The study of world cultures which will provide a foundation for a better understanding of all human societies, including the United States. Involves a comparative examination of different cultures, including both primitive and modern societies. Includes the study of culture and personality, subsistence patterns, economic and political systems, gender, kinship and social organization, religion and culture change.

**Recommended:** Reading Level 5 or 6, English Level 5. **Hours:** 54 lect. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE D.1; CSU GE D.1; IGETC 4.

**ANTH B3 Introduction to Archaeology (3 units)**

Introduction to the study of past cultures and societies through their material record. Examines the key concepts, practices, methods and debates within the field of archaeology.

**Recommended:** Reading Level 5 or 6, English Level 6. **Hours:** 54 lect. Field trip required. **Offered:** F or S. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU, and private colleges. BC GE D.1; CSU GE D.1; IGETC 4.

**ANTH B5 North American Indians (3 units)**

Introduction to the study of Native American cultures and societies in North America, including proto-historic, historic, and modern culture groups. Designed to allow an understanding and appreciation of cultures and experiences of Native North Americans. **Recommended:** Reading Level 5 or 6, English Level 5. **Hours:** 54 lect. **Offered:** F or S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. CSU GE D.1, D.3; IGETC 4.

**ANTH B21abcd Special Projects (1-1-1-1 unit. Limit 4 units)**

Guided skill development in the application of anthropology to the academic context. Provides experience in assisting with anthropological research and/or tutoring anthropology. **Recommended:** ANTH B1 and ANTH B2 with a minimum grade of "B" and evaluation by instructor. **Hours:** 54 by arrangement for each unit. **Repeat:** 3, or until a maximum of 4 units is reached. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

**ARCHITECTURE****ARCH B1 Introduction to Architecture and Environmental Design (1.5 units)**

Familiarization with the professional fields of architecture, landscape architecture, structural engineering, construction and city/regional planning. Introduction to schools of architecture programs as they relate to individual aptitudes. The design process. Guest speakers. Satisfies 0.5 unit counseling requirement for graduation from B.C. **Hours:** 27 lect. Field trips required. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. BC GE C.

**ARCH B6 Materials of Construction (3 units)**

Use and application of construction processes and materials.

**Recommended:** Reading Level 5 or 6. **Hours:** 36 lect, 54 lab. Field trips required. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**ARCH B11 Introduction to Drawing, Perspective and Graphics (4 units)**

Basic techniques used in graphic communications for the environmental design fields including orthographic projection, pictorials, perspectives, shades and shadows. Exercises to develop basic skills and speed in the representation of ideas. **Hours:** 54 lect, 72 lab. **Offered:** F. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.

**ARCH B12 Basic Graphics, Analysis and Communication Skills (4 units)**

Drawing as a communication tool in the environmental design fields with further development of freehand graphic communication skills for representation of conceptual ideas analysis, and design concepts. Demonstrates the link between graphics, design process and communications. **Prerequisites:** ARCH B11. **Hours:** 36 lect, 108 lab. Field trips required. **Offered:** S. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.

**ARCH B16 Digital Tools for Graphics Communication (3 units)**

An introduction to the use of digital tools in architectural design and visual communication in the areas of 3D modeling, image editing, 2D drawing and page layout. **Hours:** 36 lect, 72 lab. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**ARCH B21 Architectural Design Fundamentals I (4 units)**

Theories, principles, methods and means pertaining to the creation of two-and three-dimensional visual organizations to communicate intended concepts and meanings. **Prerequisite:** ARCH B1, B11, B12. **Hours:** 36 lect, 108 lab. Field trips required. **Offered:** F. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.

**ARCH B22 Architectural Design Fundamentals II (4 units)**

Continuation of the content and issues introduced in ARCH B21 plus the theories, principles, methods and means pertaining to the creation of architectural forms, space and organizations and incorporation of function and light as issues that shape the built environment and support the communication of intended concepts and meanings. **Prerequisite:** ARCH B21. **Hours:** 36 lect, 108 lab. Field trips required. **Offered:** S. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.

**ARCH B31 Architectural Practice (3 units)**

Wood construction methods and processes. Construction documents used as communication medium for such methods and processes. **Prerequisites:** ARCH B6.

**Recommended:** ARCH B11. **Hours:** 36 lect, 72 lab. Field trips required. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### ARCH B32 Architectural Computer Graphics (1 unit)

Introduction to the application of computers in architecture, including operating systems, applications and graphic systems as they relate to construction documents and design technology. **Prerequisites:** INDR B11, ARCH B31 (ARCH B31 may be taken concurrently). **Hours:** 18 lect, 36 lab. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### ARCH B33 Architectural Computer Practice (3 units)

The use of computer applications as a communication instrument in the design development and construction document phases of a light commercial project. Theory and application of laws and codes as they affect such buildings. **Prerequisite:** ARCH B32. **Hours:** 36 lect, 72 lab. Field trips required. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### ARCH B55 Building Codes (3 units)

Study of the uniform building codes, local codes and related ordinances. Fundamental structural concepts involved in code work, code interpretation and enforcement. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **Offered:** F. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### ARCH B56 Building and Related Codes (3 units)

Study of the uniform building, plumbing, mechanical and electrical codes. A companion course to ARCH B55 offering a greater in-depth study of the various codes which make up the Code of Building Regulations. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

## ART

### ART B1 Art Appreciation (3 units)

This lecture course presents a broad introduction to the visual arts from prehistory to the present. The role of art in the creation of world culture, as well as art processes and visual vocabulary are examined. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.1; IGETC 3.A.

### ART B2 Basic Drawing (3 units)

This course introduces the fundamentals of representational drawing. The visual vocabulary and design principles and elements are covered, as related to drawing. Media may include pencil, ink, charcoal, conté, pastels, and watercolor. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 54

studio. Field trips optional. **Repeat:** 3. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.1; IGETC 3.A.

### ART B2ef Figure Drawing (3 units)

B2e-B2f (1.5-1.5) equivalent to B2ef. This is an introductory course in drawing from live models. Emphasis is placed upon an understanding of the structure, anatomy, and expression of the human figure. Media may include pencil, ink, charcoal, conté, pastels, and watercolor. **Recommended:** Reading Level 5 or 6. **Hours:** B2ef- 54 lect, 54 lab. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C.

### ART B2gh Advanced Figure Drawing (3 units)

B2g-B2h (1.5-1.5) equivalent to B2gh. This drawing course, using live models, is a review and refinement of drawing techniques and exercises that are introduced in Figure Drawing. Emphasis is placed upon a more personal expression of the human figure. Media may include pencil, ink, charcoal, conté, pastels, and watercolor. **Recommended:** ART B2ef. **Hours:** B2gh- 54 lect, 54 lab. **Repeat:** 2. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

### ART B3ab Two Dimensional Design (3 units)

B3a-B3b (1.5-1.5) equivalent to B3ab. This course examines the principles and elements of two-dimensional design. The content includes: the elements and principles of design, color theory, art terminology, and analysis of form and content. **Hours:** B3ab- 54 lect, 54 lab. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.1; IGETC 3.A.

### ART B4ab Basic Painting - Acrylic Media (3 units)

B4a-B4b (1.5-1.5) equivalent to B4ab. This course introduces the use of acrylic paint as an expressive medium. Tools, techniques, compositional elements, color theory, and craftsmanship as applied to painting are covered. **Hours:** B4ab- 54 lect, 54 lab. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

### ART B4cd Advanced Painting - Acrylic Media (3 units)

B4c-B4d (1.5-1.5) equivalent to B4cd. This course is an extension of ART B4ab. Students review and refine techniques using acrylic paint as an expressive medium. Emphasis is placed upon personal explorations. **Hours:** B4cd- 54 lect, 54 lab. **Repeat:** 2. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

### ART B7ab Ceramics - Basic (3 units)

B7a-B7b (1.5-1.5) equivalent to B7ab. This course introduces the use of clay as an expressive medium. The content includes: preparation of clay, handbuilding, wheel throwing, design techniques and glaze application. **Recommended:** Reading Level 5 or 6. **Hours:** B7ab- 54 lect, 54 lab. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C.

**ART B7cd Ceramics - Intermediate (3 units)**

B7c-B7d (1.5-1.5) equivalent to B7cd. In this course, students explore glaze calculation and kiln firing; and begin advanced work in methods, concepts, and materials related to clay.

**Recommended:** ART B7ab with a grade of "C." **Hours:** B7cd- 54 lect, 54 lab. **Offered:** F, S. **CCS:** Liberal Arts & Sciences.

**Transferable:** UC, CSU and private colleges.

**ART B7ef Ceramics - Advanced (3 units)**

B7e-B7f (1.5-1.5) equivalent to B7ef. This course offers the student an opportunity to further develop ceramic skills.

Advanced work in glaze calculations, kiln firing and clay construction is continued from ART B7d. **Recommended:** ART B7cd with a grade of "C." **Hours:** B7ef- 54 lect, 54 lab.

**Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**ART B7gh Ceramics - Advanced (3 units)**

B7g-B7h (1.5-1.5) equivalent to B7gh. This course features special projects in advanced ceramic techniques. Students pursue individual research problems in kiln building, wheel building, tool construction and production techniques.

**Recommended:** ART B7ef. **Hours:** B7gh- 54 lect, 54 lab.

**Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**ART B11ab Sculpture (3 units)**

B11a-B11b (1.5-1.5) equivalent to B11ab. This course introduces sculptural concepts and investigates their translation into three-dimensional forms. Problems involving various technical means are explored. Students investigate the role of materials and techniques in the creative process.

**Recommended:** Reading Level 5 or 6. **Hours:** B11ab- 54 lect, 54 lab. **Offered:** F. **CCS:** Liberal Arts & Sciences.

**Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.1.

**ART B11cd Advanced Sculpture (3 units)**

B11c-B11d (1.5-1.5) equivalent to B11cd. This is an advanced study in sculptural concepts and three-dimensional forms.

The course explores the expressive meaning of form and the expressive potential of materials. **Recommended:** ART B11ab.

**Hours:** B11cd- 54 lect, 54 lab. **Repeat:** 2. **Offered:** F. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**ART B13 Beginning Printmaking (3 units)**

In this beginning printmaking course, students explore the expressive potential of the intaglio and monotype techniques.

**Recommended:** Reading level 5 or 6. **Hours:** 36 lect, 72 studio. Field trips optional. **Repeat:** 3. **Offered:** F, S, SS. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.

**ART B16 Introduction to Digital Photography (3 units)**

This course is an introduction to the possibilities of digital photography. Topics covered include: digital cameras,

scanning, printing, color management and file management. Students create original images for use in class and explore photo manipulation with raster software. A suitable digital or film camera is required. **Recommended:** Reading Level 5 or 6, ART B20 or equivalent. **Hours:** 54 lect, 54 lab. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges. Note: Elective credit only.

**ART B17ab Elementary Photography (3 units)**

B17a-B17b (1.5-1.5) equivalent to B17ab. In this black and white photography course, students study the basic principles of cameras, optics, light, film, film development, exposure, exposure meters and enlarging. Photographic quality, exploration of the photographer's environment, and personal expression is emphasized. A suitable 35mm film camera is required. **Recommended:** B17a: Reading Level 5 or 6. **Hours:** B17ab-108 lect/lab. Field trips required. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C

**ART B17cd Intermediate Photography (3 units)**

B17c-B17d (1.5-1.5) equivalent to B17cd. This course in black and white photography is a continuation of ART B17ab. Students review and refine their photography skills, with an emphasis on personal expression. A suitable 35mm film camera is required. **Recommended:** ART B17ab with a grade of "C." **Hours:** B17cd-108 lect/lab. Field trips required. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**ART B17gh Advanced Photography (3 units)**

B17g-B17h (1.5-1.5) equivalent to B17gh. This course is a study of black and white photography in an area of specialized and personal interest. Advanced work is done in camera technique, darkroom practices and studio lighting. Students create technically proficient work of an expressive and original nature. A suitable 35mm film camera is required. **Recommended:** ART B17cd with a grade of "C." **Hours:** B17gh-108 lect/lab. Field trips required. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. Note: Elective credit only.

**ART B18ab Individual Projects in Photography (2 units)**

B18a-B18b (1-1) equivalent to B18ab. Students in this course receive special instruction in preparation for professional experience. Students strengthen their graphic visualization and technical skills through challenging individual assignments. Students work much more independently than in the foundational photography courses. A suitable 35mm film camera is required. **Recommended:** Evaluation by instructor of student's photography skills. **Hours:** B18ab-18 lect, 54 lab. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. Note: Elective credit only.

**ART B20 Introduction to Digital Arts (3 units)**

This foundational course introduces vector art and the

principles and elements of two-dimensional design. Students create original design solutions and learn the basics of the Apple Macintosh computer. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 54 lab. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. BC GE C.

### ART B21 Graphic Design (3 units)

This is a course in design with an emphasis on printed communication. Through concept development, type, and images, students create original design solutions. Identity and branding development is introduced. **Recommended:** ART B20 and Reading Level 5 or 6. **Hours:** 108 lab. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### ART B22 Digital Illustration (3 units)

This course introduces digital art for editorial, technical, scientific, and informational publication. Emphasis is placed on problem solving and the importance of concept development, from rough draft to finished solution. Typography is considered as an integral element to illustration projects. **Prerequisite:** ART B20 or equivalent. **Hours:** 54 lect, 54 lab. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### ART B23 Advertising Design (3 units)

This course focuses on the design of advertising. Through concept development, type, and images, students will create original advertising solutions. A broad survey of advertising media will be explored. **Recommended:** ART B20 and Reading Level 5 or 6. **Hours:** 108 lab. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

### ART B24 Digital Imaging (3 units)

This course introduces raster art as used in commercial media. Through a series of projects, students create original artwork, and refine their design skills. Processes such as painting, masking, layering, color correcting, separating, and effects filtering are covered. Image creation, scanning, editing, compositing, re-touching, and problem solving are explored. **Recommended:** ART B20 or equivalent. **Hours:** 54 lect, 54 lab. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### ART B25 Typography (3 units)

This course focuses on effective and original letterform usage in visual media. Students create typographic design solutions and explore the evolution of letterforms from ancient to contemporary. All projects feature investigation of structure, format, legibility, and expression. **Prerequisite:** ART B20. **Hours:** 54 lect, 54 lab. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### ART B29 Special Studies in Art (0.5-3 units. Limit 9 units)

This course is intended for students pursuing advanced individual projects. The content and unit credit are determined

by the instructor and student in consultation. **Recommended:** Completion of beginning courses in a particular series or evaluation by instructor of student's skills in subject area. **Hours:** 9 lect, 18 lab for each 0.5 unit. **Repeat:** 3, or until a maximum of 9 units is reached. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. Note: Elective credit only.

### ART B30e Art of Latin America (3 units)

This course is a historical survey of the arts in Latin America. The focus is on the Spanish-speaking regions of the Americas, as well as Cuba and the Dominican Republic. Students examine artistic contributions by Latin American artists to colonial and modern art forms. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. Note: Not open to students who have taken the equivalent course, CHST B30e. BC GE C; CSU GE C.1; IGETC 3.A.

### ART B35 Survey of World Art I (3 units)

This course is a historical survey of the architecture and visual arts beginning in the Paleolithic age (30,000 BC) and continuing through Medieval Europe (1400CE); includes Near Eastern, Egyptian and European traditions. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. **Note:** formerly ART B30a and ART B30b. BC GE C, CSU GE C.1.

### ART B36 Survey of World Art II (3 units)

This course is a historical survey of the architecture and visual arts from 1400CE to the present day including non-western cultures. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** S. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. **Note:** formerly ART B30c and ART B30d. BC GE C, CSU GE C.1.

## ASTRONOMY

### ASTR B1 Physics of the Cosmos (3 units)

Introductory course emphasizing the application of physics to understand the physical processes on the Earth and beyond the Earth and how we know those processes are occurring while still being bound to the earth (or our solar system). The process and philosophy of science is examined from the astronomical perspective. Among topics included: the motions, properties, and evolution of the Sun, planets (including exoplanets), stars, galaxies, and universe and how we know; the analysis of electromagnetic radiation; atomic structure; astronomical instruments; brief history of astronomy; Newton's law of gravity; General Relativity. **Prerequisite:** Reading Level 5 or 6. **Recommended:** Math BA with a grade of "C" or equivalent. **Hours:** 54 lect. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE B.1; CSU GE B.1; IGETC 5.A.

**ASTR B2 Life in the Universe (3 units)**

Introductory course on the scientific search for life in the universe. The process and philosophy of science is examined from the astronomical and biological perspectives. Among topics included: the definition and nature of life, the formation and development of the Earth and life on the Earth, other places in our solar system that might have habitats for life, habitable zones around other stars, how we detect extrasolar planets, how we could detect biological activity on extrasolar planets, the search for extraterrestrial intelligence, interstellar travel, and implications of making contact. Prerequisite: Reading Level 5 or 6. Recommended: MATH BA with a grade of "C" or better. Hours: 54 lect. CCS: Liberal Arts and Sciences. Transferable: UC, CSU and private colleges. BC GE B.1, CSU GE B.1, IGETC 5A.

**ASTR B3 Solar System (3 units)**

Introductory course on the Sun, Earth, other planets, moons, rings, comets, asteroids, and extrasolar planets, formation and development of the Earth and solar system, and possibility of life on other worlds. Prerequisite: Reading Level 5 or 6. Recommended: MATH BA with a grade of "C" or better. Hours: 54 lect. CCS: Liberal Arts and Sciences. Transferable: UC, CSU and private colleges. BC GE B.1, CSU GE B.1, IGETC 5A.

**AUTOMOTIVE**

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

**AUTO B1ab Introduction to Automotive Technology (2-2 units)**

Introduction to the operation and maintenance of the modern automobile with emphasis on the theory of the basic operating systems. These systems include a) the engine and its systems (lubrication, cooling, fuel, and emission controls), b) electrical systems (battery, starting, charging, lighting, and ignition, c) the chassis (suspension, wheel alignment, steering, brakes, tires and wheels, d) the drive line (clutch, standard and automatic transmissions, universal joints and differential). **Recommended:** B1a: Reading Level 5 or 6; B1b: AUTO B1a. **Hours:** 27-27 lect, 27-27 lab. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**AUTO B2a Automotive Engine Overhaul (9 units)**

Preparation for ASE A1 exam. Theory of internal combustion, piston-type engine design and maintenance. Practice in engine overhaul procedures and mechanical problem diagnosis. **Recommended:** AUTO B1 with minimum grade of "C" or evaluation of previous auto experience by instructor. **Hours:** 108 lect, 162 lab. **Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. **Note:** Elective credit only.

**AUTO B2b Automotive Engines Machining (9 units)**

Prepares for ASE M1G, M2g, M3g exams. Advanced engine design, theory of machining techniques and engine machining procedures. Practice in automotive machining operations. **Prerequisite:** AUTO B2a with at least a grade of "C." **Hours:** 108 lect, 162 lab. **Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. **Note:** Elective credit only.

**AUTO B14 Automotive Tune-Up: Electrical, Ignition and Accessories (10 units)**

Prepares student for ASE A6, A8 exams. Fundamentals of automotive electrical/electronic component repair. Includes electrical theory, diagnosis and repair of battery, starting, charging and ignition systems including computer controlled systems. Laboratory emphasis on computer diagnostic equipment. **Recommended:** AUTO B1 or one year automotive repair work experience. Reading Level 5 or 6. **Hours:** 144 lect, 126 lab. **Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. **Note:** Elective credit only.

**AUTO B15 Automotive Tune-Up: Fuel and Emissions (10 units)**

Prepares for ASE A8 exam. Theory, operation, and servicing of automotive fuel systems, computer controlled fuel systems, emission controls, and advanced engine performance. **Recommended:** AUTO B1 with a grade of "C" or evaluation by instructor of previous auto experience. **Hours:** 144 lect, 126 lab. **Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. **Note:** Elective credit only.

**AUTO B50ab Diesel and Heavy Equipment Technician Training (3.5-3.5 units)**

Repair service on heavy equipment. Emphasizes maintenance, repair, trouble-shooting, design, safety, tool usage, welding and air conditioning **Hours:** 32-32 lect, 96-96 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**AUTO B56ab Diesel Engines (2-2 units)**

Diesel technology used in agriculture and transportation industries, covers principles of operation, diagnosis and service. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect, 18 lab for each 2 units. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**AUTO B56c Hydraulics and Fluid Power Systems (2 units)**

The application of hydraulic technology used in industrial and agricultural applications for stationary and mobile applications. Covers design, theory of operation and service of fluid power systems. **Recommended:** Reading level 5 or 6. **Hours:** 18 lect, 18 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**AUTO B59 Automotive Air Conditioning (3 units)**

Prepares for ASE A7 and T7 exams. Safety, principles and theory of automotive air conditioning systems, laboratory practice in the installation, service and repair of automotive heating, ventilation and air conditioning components.

**Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 54 lab. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**AUTO B62 Automatic Transmissions (2 units)**

Prepares for ASE A2 exam. Entry-level program providing technical instruction in diagnosis and repairs of automatic transmissions. **Recommended:** Reading Level 5 or 6. **Hours:** 27 lect, 27 lab. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**AUTO B64a Automotive Electricity (2 units)**

Prepares for ASE A6 exam. Fundamentals of automotive electronics and electrical components including ignitions, computers, batteries, alternators, starters. Laboratory emphasis on testing and servicing of electrical equipment. **Recommended:** Reading Level 5 or 6. **Hours:** 27 lect, 27 lab. **Offered:** F. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**AUTO B64b Advanced Automotive Electronics (2 units)**

Course is directed toward the student already possessing a basic electrical knowledge. Lab will emphasize troubleshooting current auto electronic systems, utilizing the digital multimeter, lab oscilloscope and logic probe. Student will learn electronic components, analog/digital circuit theory and testing. **Prerequisite:** AUTO B14 or AUTO B64a or AUTO B66 or two years experience in the automotive service field. **Hours:** 27 lect, 27 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**AUTO B65a Advanced Automotive Performance & Emissions (4 units)**

Prepares for ASE A6, A8, and L1 exam. Operation and diagnosis of domestic and import computerized engine control systems. Includes electronic devices, control modules, sensors, and computerized fuel systems. Laboratory includes electronic diagnosis, computer code analysis, and fuel system diagnosis. **Recommended:** AUTO B1 or one year automotive experience. **Hours:** 54 lect, 54 lab. **Offered:** F, S. **Repeat:** 1. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**AUTO B65b Enhanced Area Clean Air Car Course (4 units)**

Prepares for state smog license. Installation, operation, and repair of automotive pollution control devices including crankcase devices, exhaust emissions, and vapor control systems. Meets the California Air Resources (C.A.R.B.) pre-examination requirements. **Prerequisite:** AUTO B65a or ASE Certification in A6 or A8. **Recommended:** AUTO B1 or one

year automotive repair work experience. **Hours:** 54 lect, 54 lab. **Repeat:** 1. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**AUTO B67abc Motor Sports Dynamics/Technical Preparation (1-1-1 units)**

Explore operation and diagnosis of race car suspension and engine performance. Explore the various methods of race team management and organization. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect for each unit. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**AUTO B68 Race Car Construction and Engineering (2 units)**

Class will engineer race car systems, fabricate and assemble race car using skills and theories taught in AUTO B67abc, test tuning and suspension theories at local race track using professional driver for consistency. **Prerequisite:** AUTO B67abc. **Hours:** 18 lect, 36 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**AUTO B73 Wheel Alignment (2 units)**

Prepares for ASE A4 exam. Principles of front end and four wheel alignment including repair, replacement and adjustment of suspension components. Instruction and use of computerized 4-wheel alignment machine. **Recommended:** Reading Level 5 or 6. **Hours:** 27 lect, 27 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**AUTO B74 Automotive Disc and Drum Brake Service (2 units)**

Prepares for ASE A5 exam. Principles of operation and diagnosis, repair, and replacement of automotive brake system components. **Recommended:** Reading Level 5 or 6. **Hours:** 27 lect, 27 lab. **Offered:** F. **Repeat:** 1. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**AUTO B75a Introduction to Engine Overhaul (3 units)**

Prepares for ASE A1 exam. Theory of internal combustion, piston-type engine design and maintenance. Engine disassembly for familiarization purposes. **Recommended:** AUTO B1 or high school automotive class, or one year automotive repair work experience. **Hours:** 36 lect, 72 lab. **Offered:** F. **Repeat:** 1. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**AUTO B75b Engine Repair Techniques (3 units)**

Prepares for ASE A1 exam. Theory of internal combustion, piston-type engine repair techniques. Practice in overhaul procedures, mechanical problem diagnosis and measuring techniques. **Prerequisite:** AUTO B75a. **Hours:** 36 lect, 72 lab. **Offered:** F. **Repeat:** 1. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**AUTO B75c Advanced Engine Overhaul (3 units)**

Prepares for ASE A1 exam. Application of engine overhaul theory and procedures, component tolerancing, reassembly and break-in procedures. **Prerequisite:** AUTO B75b.

**Hours:** 36 lect, 72 lab. **Offered:** F. **Repeat:** 1. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**AUTO B75d Advanced Engine Machining (3 units)**

Prepares for ASE A1 exam. Advanced engine design, theory of machining techniques and engine machining procedures.

Practice in automotive machining. **Prerequisite:** AUTO B75c. **Hours:** 36 lect, 72 lab. **Offered:** F. **Repeat:** 1. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**AUTO B76 Performance Engine Building (2 units)**

Theory of high performance engines and machining skills necessary to modify stock production engines for maximum output. Test sessions at local racetrack will show applied theory and skills. **Prerequisite:** AUTO B2a and AUTO B2b or AUTO B75abcd. **Hours:** 18 lect, 36 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**AUTO B90 Automotive Maintenance and Repair (6 units)**

Engine components, chassis, brake, air conditioning service and basic engine tune-up. **Hours:** 48 lect, 144 lab. **CCS:** Occupational Education. **Not Transferable:** Degree only.

**AUTO B106 Automotive Brakes, Suspension, Steering and Alignment (9 units)**

A comprehensive course in automotive and light truck brake, alignment, suspension, and steering systems. Designed to give students the skills and knowledge to diagnose and repair these systems to industry standards. **Prerequisite:** AUTO B64a or AUTO B15 or AUTO B14. **Recommended:** Reading Level 5 or 6. **Hours:** 128 lect, 142 lab. **Repeat:** 1. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**AUTO B112 Automotive Transmissions and Gear Boxes (9 units)**

Automatic transmissions and transaxles, computer controls, 2, 3, and 4 speed transmissions, overdrive, and all related components. Also covers standard transmissions and transaxles, clutches, "U" joints, differentials and all related components. Successful completion should enable student to pass the National Institute of Service Excellence test. **Prerequisite:** AUTO B1a and B1b or B64a or B14 or B15. **Recommended:** Reading Level 5 or 6. **Hours:** 128 lect, 142 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**BIOLOGY**

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

**BIOL B3a General Biology I (5 units)**

Introductory course for students majoring in the biological sciences or pursuing pre-professional programs of study such as pre-medical, pre-pharmacy, pre-dentistry. Emphasizes scientific processes and methods of biology including original research. Explores unifying principles of micro- and macro-evolutionary processes, biodiversity of organisms, systematics, principles of ecology, animal behavior and Mendelian genetics. **Prerequisite:** MATH BD with a grade of "C" or better, Reading Level 5 or 6. **Hours:** 54 lect, 108 lab. Field trips required. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE B.1; CSU GE B.2, B.3; IGETC 5.B.

**BIOL B3b General Biology II (5 units)**

Principles of cell biology, molecular biology, metabolism, biochemistry, molecular genetics, and physiology. **Prerequisite:** CHEM B1a with a grade of "C." **Hours:** 54 lect, 108 lab. Field trips required. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. CSU GE B.2, B.3; IGETC 5.B.

**BIOL B7 Environmental Biology (3 units)**

Introduction to environmental science. Major consideration will be given to the processes which will sustain humans on this planet. Topics to be included: the relevance of ecology to human affairs; historical aspects of ecological principles; population ecology; and ecology and the human future. **Prerequisite:** Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges. BC GE B.1, CSU GE B.2, IGETC 5B.

**BIOL B7L Environmental Biology Laboratory (1 unit)**

Laboratories are designed around lecture and text topics from Environmental Science, BIOL B7. Introduction to environmental science laboratory. Major consideration will be given to the processes which will sustain humans on this planet. Topics to be included: the relevance of ecology to human affairs; historical aspects of ecological principles; population ecology; and ecology and the human future. Field trip required. **Prerequisite:** BIOL B7 (may be taken concurrently). **Reading Level 5 or 6. Hours:** 54 lab. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges. BC GE B.1, CSU GE B.3, IGETC 5B.

**BIOL B11 Concepts of Biology (4 units)**

A non-majors introductory course that applies biological concepts to issues of everyday life. Concepts considered include scientific method; ecosystems and energy flow; organization, structure, function, behavior and evolution of organisms; inheritance; disease; ethics. **Prerequisite:** Reading Level 5 or 6. **Hours:** 54 lect, 54 demo/disc/lab plus at least one field trip. **Offered:** F, S. **CCS:** Liberal Arts & Sciences.

**Transferable:** UC, CSU and private colleges. BC GE B.1; CSU GE B.2, B.3; IGETC 5.B.

### **BIOL B16 General Microbiology (5 units)**

Introduction to the study of microorganisms. Topics include: survey of microorganisms, history, physical and chemical agents, bacterial genetics, bacterial metabolism, bacterial diseases by transmission, fungal and protozoal infections, viral diseases, immunology, public health and epidemiology, nosocomial infections, biogenetic engineering, applications to food, water and sewage treatment. **Prerequisite:** Any college level chemistry and any college level biology course with a grade of "C" or better. **Hours:** 54 lect, 108 lab. Field trips required. **Offered:** F, S. **CCS:** Liberal Arts and Sciences.

**Transferable:** UC, CSU and private colleges. BC GE B.1; CSU GE B.2, B.3; IGETC 5.B.

### **BIOL B18 Essentials of Human Anatomy and Physiology (4 units)**

An integrated life science course specifically targeted for students in allied health programs. Topics include microscopic and gross anatomy as well as physiology of all human organ systems: skeletal, muscular, cardiovascular, lymphatic/immune, respiratory, digestive, excretory, nervous, endocrine, reproductive and integumentary. Additional topics will address cell structure and function, human development and human heredity. **Prerequisite:** Reading Level 5 or 6. **Hours:** 54 lect, 54 lab. **Offered:** F, S. **CCS:** Liberal Arts and Sciences.

**Transferable:** CSU and private colleges. BC GE B.1; CSU GE B.2, B.3.

### **BIOL B20 Human Biology (4 units)**

An introductory biology course designed specifically for non-science majors, covering basic chemical principles of life, cell and tissue structure and function, human anatomy and physiology, health aspects, and genetics. Topics include evolution, population growth and environmental impact on humans. **Prerequisite:** Reading Level 5 or 6. **Hours:** 54 lect, 54 lab. Field trips required. **Offered:** F, S. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE B.1; CSU GE B.2, B.3; IGETC 5.B.

### **BIOL B21 Special Projects in Biology (0.5-2 units. Limit 4 units)**

Individually directed work in the biology laboratory. Student will learn biological preparation, and/or development of teaching materials while assisting in a biology laboratory. **Prerequisites:** Any college biology course. **Hours:** 54 directed study for each unit. **Repeat:** 3 or until a limit of 4 units is reached. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

### **BIOL B32 Human Anatomy and Physiology I (4 units)**

The first part of a two-semester integrated anatomy and physiology course providing the necessary foundation required for BIOL B33. Covers the principles of human anatomy and physiology, emphasizing the integration of structure, function, and maintenance of homeostasis. Topics are anatomical

terminology, body chemistry, histology, articulations, and the following systems: integumentary, skeletal, muscular, and peripheral nervous. Both BIOL B32 and B33 must be taken to study all the major body systems. This two-course sequence replaces BIOL B14 and BIOL B15 previously taught at BC. This series meets the diverse needs of students seeking careers in such allied health fields as nursing, pharmacy, and physician's assistant. **Prerequisite:** Reading level 5 or 6.

**Hours:** 54 lect, 54 lab. **Offered:** F, S. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE B.1; CSU B.2, B.3; IGETC 5.B.

### **BIOL B33 Human Anatomy and Physiology II (4 units)**

The second part of a two-semester integrated anatomy and physiology course that covers the principles of human anatomy and physiology, emphasizing the integration of structure, function, and maintenance of homeostasis. Topics include the following systems: nervous (CNS), endocrine, cardiovascular, lymphatic/immune, respiratory, digestive, urinary, reproductive and human development and heredity. Both BIOL B32 and B33 must be taken to study all the major body systems. This two-course sequence replaces BIOL B14 and BIOL B15 previously taught at BC. This series meets the diverse needs of students seeking careers in such allied health fields as nursing, pharmacy, and physician's assistant. **Prerequisite:** BIOL B32 with a grade of "C" or better. **Hours:** 54 lect, 54 lab. **Offered:** F, S. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE B.1; CSU B.2, B.3; IGETC 5.B.

### **BIOL B34 Pathophysiology (3 units)**

A biological introduction to the study of disrupted normal functioning of the human body. Reviews principles from anatomy, physiology, and chemistry as foundation for study of basic disease process concepts, body systems, etiology, and pathogenesis of various disorders. Explores diagnostic procedures, preventative measures, and current therapeutic regimes. Emphasis on various physiological concepts with related pathological implication for increased understanding and recognition of many of the human disorders. An elective course to augment and strengthen all pre-allied health pathways such as nursing, radiology, respiratory therapy, and the clinical laboratory. **Prerequisite:** BIOL B14 and B15 or BIOL B32 and B33. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges.

### **BIOL B255 Human Anatomy and Physiology Success Lab (0.5 - 1 unit)**

An on-campus supplemental laboratory designed for self-paced practice and mastery of anatomy and physiology skills. Provides instructional guidance and access to laboratory models and equipment to assist students to refine skills and complete learning outcomes required in courses studying human anatomy and physiology. Multimedia and computer assisted instructional materials which support the semester learning objectives are available. Subsequent enrollment in additional semesters will offer the student an opportunity for additional skill and competency development within the subject matter. **Prerequisite:** Concurrent enrollment in target courses BIOL B32, B33, B18 or B20. **Offered:** Pass/No Pass grading

only. **Hours:** 9-18 lab. Open entry/open exit. **Repeat:** 3. **CCS:** Liberal Arts and Sciences. **Not Transferable:** Associate Degree only.

## BUSINESS ADMINISTRATION

*Credit limitations may apply. For specific information, see a counselor or the transfer institution.*

### BSAD B1 Financial Accounting (4 units)

An introduction to the theory and practice of accounting and financial reporting. Topics include the accounting cycle, financial statements and accounting for assets, liabilities, equities, revenues and expenses. **Prerequisite:** Math BD and Reading Level 5 or 6. **Hours:** 72 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.

### BSAD B2 Managerial Accounting (4 units)

With a strong emphasis on decision-making, the use of accounting information and tools for strategic planning. Measurement and reporting performance for management decisions. Product costing using activity based costing, process and job order systems. Cost-volume-profit, budget, variance and capital investment analysis. **Prerequisite:** BSAD B1. **Hours:** 72 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.

### BSAD B5 Human Relations/People Skills (3 units)

A behavioral approach to the business environment including self-understanding, motivation techniques as related to the workplace, morale, discrimination, and developing leadership techniques for success. Provides insight on the effects of drugs and alcoholism on the individual and work group. Emphasizes career selection and communication skill building. **Recommended:** English level 5 and Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only. BC GE D.1.

### BSAD B9 Fundamentals of Marketing (3 units)

Basic key concepts and issues underlying the modern practice of marketing. Surveys the marketing concept, marketing research, buyer behavior, and environmental constraints. It is recommended that this course be taken in the third or fourth semester at Bakersfield College before transferring. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect/disc. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### BSAD B18 Business Law (3 units)

Rules of law as they relate to business transactions. Origins of American legal system. Accountant/client relationship and the law of agency and professional and business ethics. Definition and classification of law. Court systems and procedure. Law of contracts: essentials of enforceable agreements, operation and discharge. Creation of relationship, rights and liabilities of parties and termination of relationship uniform commercial code of sales. Law of negotiable instruments: essentials of

negotiability, negotiation and discharge. Law of property, personal property, acquisition, constitutional law, legislative, executive, judicial and administrative law. International business. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.

### BSAD B19 Business Law (1 unit)

Business organizations: sole ownership, partnerships and corporations. Wills and trusts. Business students transferring to CSUB are advised to take this course in addition to BSAD B18 to match CSUB's ACC 275. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### BSAD B20 Introduction to Business (3 units)

Introduction to the nature, function and management of the business enterprise in our modern political, social and economic environment. Evaluation of the relationships of business to government, to labor and to the public. Satisfies the 0.5 unit educational planning requirement for graduation from Bakersfield College. **Recommended:** English Level 5 and Reading level 5 or 6. **Hours:** 54 lect. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. BC GE D.2

### BSAD B39 Principles of Real Estate (3 units)

Introduction to the many fields of real estate activity in California. Basic information about the ownership, use and enjoyment of land. Furnishes the proper foundation including the language of real estate transactions for anyone interested in a real estate career. Satisfies partial educational requirement of state sales and broker's licenses. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### BSAD B40 Personal Finance (3 units)

Principles and skills of budgeting, making intelligent consumer choices related to consumer credit, banking services, insurance, taxes, transportation, investing for personal retirement, and real estate planning. **Recommended:** MATH BA, English Level 5, Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. BC GE D.2

### BSAD B43 Principles of Management (3 units)

A study of formal organizations, the organizational environment and organizational planning and control. Topics include the nature of complex organizations, decision-making, small group studies and individual behavior. Also included are planning theory, systems management, and non-formal behavior. **Recommended:** English Level 5 and Reading Level 5 or 6. **Hours:** 54 lect/disc. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### BSAD B51 Business Mathematics (3 units)

Basic arithmetic skills reviewed and applied to the solution of business problems. Emphasizes bank records, invoices,

cash and trade discounts, markup and markdown, inventory valuation, payroll, simple and compound interest, promissory notes, installment buying, stocks and bonds, amortization, real estate loans, property tax, personal income tax, depreciation, and insurance. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **BSAD B53a Introduction to Accounting 1 (3 units)**

An introduction to modern financial accounting theory and practice. Analysis of financial transactions using the rules of double-entry bookkeeping. Accounting cycle including adjusting entries, the expanded worksheet, the use of special journals, bank reconciliations, and the preparation of financial statements. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **BSAD B53b Introduction to Accounting 2 (3 units)**

A continuation of an introduction to modern financial accounting theory and practice. Analysis of financial transactions peculiar to the partnership and corporate forms of business ownership. Accounting methods and procedures including valuation of inventory, accounts receivable, notes payable, notes receivable and drafts, depreciation, depletion and amortization, capital stock transactions, bonds and other long-term liabilities, worksheets and payroll. **Prerequisite:** BSAD B53a. **Hours:** 54 lect. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **BSAD B54 Payroll Accounting (3 units)**

A foundation in payroll computations, payroll record keeping, and the filing of quarterly and annual payroll tax reports. Involves the study of California Disability Insurance, California Unemployment Insurance, Federal Social Security, Federal Unemployment Insurance, Federal Income Tax and California Income Tax, and how these taxes affect the employee/employer. **Prerequisite:** BSAD B53a. **Hours:** 54 lect. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **BSAD B55 Computer Accounting Applications (3 units)**

Review and practical application of accounting principles, electronic spreadsheets, word processing and data management as they pertain to solution of accounting problems and situations on a microcomputer. Emphasizes analysis of problems and student initiative to solve the problems presented using computerized software available. **Prerequisite:** BSAD B53a/b or BSAD B1. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **BSAD B57 Federal and California Income Taxation (4 units)**

Instruction in Federal and California Income Tax law, theory and practice. Incorporates the H & R Block curriculum for registration as a tax preparer. **Hours:** 72 lect. **Offered:** F.

**Repeat:** 2. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **BSAD B61 Human Resources Management (3 units)**

Comprehensive study and review of human resources management. The focus is on strategic planning, financing, performance appraisals, compensation, motivation, training and development, disciplinary action and contract negotiations. Emphasizes Federal, State and local laws and how they are applied in the public and private sectors. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect/disc. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **BSAD B65 Principles of Organizational Communication (3 units)**

Examination of written and oral communication in the business world. Examines the processes of human behavior and communication within the organizational context. It will test the principles of English writing skills and communication in the business office and focus on writing letters, memorandums, e-mails, resumes, reports and oral presentations. Course defines the barriers to effective communication and teaches the appropriate techniques to overcome poor communication skills. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect/disc. **Offered:** F. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **BSAD B70a Salesperson/Broker Prelicense**

Intended for prospective salespersons and brokers who are preparing for real estate examinations. Covers basic principles and contains review questions to prepare students for all aspects of California Real Estate Examination. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect. **Repeat:** 3. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **BSAD B71 Escrow Procedures I (3 units)**

The principles and methods of handling escrows involving title to land, sale of personal property and all other types of escrows ordinarily handled in the escrow office. Includes a study of the various forms and practices used in the drawing of the escrow instructions and the buyers' and sellers' closing statements. Also considers the duties of the escrow officers. Satisfies partial educational requirement of state sales and broker's licenses. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect/disc. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **BSAD B72 Property Management (3 units)**

Introduces property management as a specialized activity that offers services to property owners. Contains current, specific information on the real estate market, inflation, and government activities. Detailed emphasis is given to the management of residential property, condominiums, office buildings, and shopping centers. Satisfies partial requirement of state sales and broker license. **Recommended:** Reading Level

5 or 6. **Hours:** 54 lect. Field trips required. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **BSAD B73 Common Interest Developments (CIDs)**

Intended as a guide for condominium and homeowner's associations, board of directors and property owners regarding issues that arise in the context of community or homeowner association living. Satisfies partial educational requirements for sales and brokers licenses. **Recommended:** Reading level 5 or 6. **Hours:** 54 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **BSAD B74 Legal Aspects of Real Estate (3 units)**

A study of California real estate law, including rights incident to property ownership and management, agency, contracts and application to real estate transfer, conveyancing, probate proceedings, trust deeds and foreclosures, as well as recent legislation governing real estate transactions. Satisfies partial educational requirement of State broker's examination. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect/disc. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **BSAD B75 Real Estate Economics (3 units)**

Advanced course dealing with the nature and classification of land; business fluctuations and their relationship with real estate cycles; residential and commercial market trends; rural property and special purpose trends; economic factors affecting the development of property, construction and subdivision. Satisfies partial education requirement for State Broker's Examination. **Recommended:** BSAD B39. **Hours:** 54 lect/disc. **Offered:** F. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **BSAD B76 Real Estate Finance (3 units)**

Practical study and analysis of real estate financing, with actual cases illustrating lending policies, problems, risks involved in financing transactions in residential, apartment, commercial, and special purpose properties. Satisfies partial educational requirement for State Broker's Examination. **Recommended:** BSAD B39. **Hours:** 54 lect/disc. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **BSAD B77 Basic Appraisal Principles (3 units)**

Principles and basic fundamentals of real estate appraisal pertaining primarily to single-family and small multiple dwellings. Explains the appraisal process and the different approaches, methods, and techniques used to determine the value of various types of property. Satisfies partial educational requirement for State Broker's Examination. **Recommended:** BSAD B39. **Hours:** 54 lect/disc. **Repeat:** 1. **Offered:** F. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **BSAD B78 Real Estate Practice (3 units)**

Basic elements of day-to-day real estate sales and brokerage practice, primarily for holders of real estate licenses as salesmen and brokers. Topics include listing, prospecting, advertising, financing, sales techniques, escrow and ethics. Satisfies partial educational requirement for State Broker's Examination. **Recommended:** Reading Level 5 or 6, real estate license or BSAD B39. **Hours:** 54 lect. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **BSAD B79 Real Estate Investment and Taxation (3 units)**

Principles and practical applications of real estate investment and tax analysis. Basic fundamentals relevant to students interested in learning real estate investment techniques. Real estate form and cases are used to aid in solving problems. **Recommended:** BSAD B53a. **Hours:** 54 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **BSAD B80 Basic Appraisal Procedures (3 units)**

Principles of appraisal, the appraisal process, features of appraisal, property considerations, appraisal techniques and professional standards of appraisers. Actual appraisal of a local apartment complex illustrating all of the factors involved in the appraisal process. Satisfies partial educational requirement of State Brokers Examination. **Prerequisite:** BSAD B77. **Hours:** 54 lect. Field trips required. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **BSAD B81 Residential Sales Comparisons and Income Approaches (3 units)**

This practical, hands-on course reviews residential appraisal techniques and using a case study, demonstrates the skills needed by modern residential appraisers. The course takes participants through a residential appraisal from the time the assignment is received to the point at which a value conclusion is reached and the appraiser is ready to complete the appraisal report. The case study is supplemented with problems focusing on individual valuation procedures. **Prerequisite:** BSAD B77 or B80. **Hours:** 54 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **BSAD B82 Real Estate Office Administration (3 units)**

Assists the Real Estate professional in the planning, managing, organizing, staffing and marketing of a Real Estate Office as well as covering Department of Real Estate Requirements. Satisfies partial educational requirements for the sales and broker licenses. **Recommended:** BSAD B39. **Hours:** 54 lect./disc. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **BSAD B85 Business English (3 units)**

Basic English grammar course focusing on nouns, pronouns, verbs, adjectives, adverbs, conjunctions, and prepositions. Also includes standard punctuation, capitalization, number usage, and vocabulary development. **Hours:** 54 lect. **CCS:**

Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students who have taken the equivalent course, BSAD B285.

### BSAD B88 Office Procedures (3 units)

A finishing course for those completing their training in office assisting. Focuses on the technologies currently taking place in the office environment and is designed to develop knowledge and skills necessary for success in the work place. Topics such as job attitudes, communications, human relations, and time and stress management are featured. Also included are telephone techniques, processing mail, travel arrangements, appointment scheduling, arranging meetings, the job application process, and interviewing techniques. **Hours:** 54 lect/disc. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### BSAD B90 Fundamentals of Retailing (3 units)

Principles and practices used in management of retail businesses. Includes site selection, layout, organization, staffing, positioning, customer service, promotional techniques, and all aspects of the critical buying function. **Recommended:** English Level 5, Reading Level 5 or 6, and MATH BA. **Hours:** 54 lect/disc. Field trip required. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### BSAD B91 E-Commerce (1 unit)

This course introduces students to E-commerce basics. Emphasis is placed on exploring marketing issues, payment processing, collections, security, and customer service. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### BSAD B250 Quick Computer Keyboarding for Survival (1 unit)

Students learn the basic techniques of the touch system in the mastery of the alpha/numeric keyboard and develop speed and accuracy in keying data. **Hours:** 30 hours individualized instruction and supervised lab. Open entry/open exit. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students who have taken BSAD B252a.

### BSAD B252abc Computer Keyboarding, Parts 1, 2, and 3 (1-1-1 unit)

Students learn the basic techniques of the touch system in the mastery of the alpha/numeric keyboard and develop speed and accuracy in keying data. They also develop the basic formatting skills necessary to produce letters, memorandums, reports, and tables. This is a basic course in the Office Technology curriculum and is a life-long learning skill. **Prerequisite:** BSAD B252a none; BSAD B252b: BSAD B252a with a grade of C or equivalent; BSAD B252c: BSAD B252b with a grade of C or equivalent. **Hours:** 30 lab hours per unit with individualized instruction in a supervised lab. Open entry/open exit. **CCS:** Occupational Education. **Not Transferable:**

Associate Degree only. **BSAD B252a** is not open to students who have taken BSAD B250.

### BSAD B253abc Document Processing Parts 1-2-3 (1-1-1 unit)

Further develops keyboarding speed, accuracy, and production rates on letters, reports, tables, forms, rough drafts, newsletters, and other documents using Microsoft Word applications. Emphasis is on producing usable copy for employment purposes and increasing keyboarding skill levels. **Prerequisites:** BSAD B253a: BSAD B252c with a grade of "C;" BSAD B253b: BSAD B253a with a grade of "C." BSAD B253c: BSAD B253b with a grade of "C." **Hours:** 30 hours per unit with individualized instruction in a supervised lab. Open entry/open exit. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### BSAD B264 Ten-Key Proficiency (0.5 unit)

Skill and proficiency in the use of the ten-key calculator by touch and the application of such skill and proficiency in the solution of the more frequently encountered business problems. **Hours:** 24 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### BSAD B280 Machine Transcription (1.5 units)

Students learn the skill of operating transcribing machines and develop skill in keying documents while listening to dictated material. Practice in transcribing letters, memoranda, and other business correspondence is stressed. Emphasizes English usage, punctuation, spelling/word usage, and proper document formatting when transcribing data. **Prerequisites:** BSAD B252c with a grade of C or equivalent and BSAD B85 or B285 or equivalent. **Hours:** 30 hours individualized instruction in a supervised lab. Open entry/open exit. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### BSAD B285 Business English (3 units)

Basic English grammar course focusing on nouns, pronouns, verbs, adjectives, adverbs, conjunctions, and prepositions. Also includes standard punctuation, capitalization, number usage, and vocabulary development. **Hours:** 54 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Hours:** 54 individualized instruction and supervised lab. Open entry/open exit. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students who have taken the equivalent course, BSAD B85.

### BSAD B287 Filing (1.5 units)

Training in principles of filing and records management according to the Associate of Records Managers and Administrators (ARMA). Study and practice in filing by alphabetic, numeric, geographic, and subject methods. **Hours:** 32 hours individualized instruction and supervised lab. Open entry/open exit. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**CHEMISTRY**

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

The introductory courses in Chemistry (Chemistry B1a-B1b), Physics (Physics B2a-B2b or B4a-B4c) are designed to provide the basic foundation in, and understanding of the laws and principles of the physical world (matter and energy) for all science, health, and pre-professional majors. These courses should be completed early in a student's academic program sequence of study to ensure greater academic success in subsequent courses in the student's field of interest and a more complete understanding of that field.

**CHEM B1a General Chemistry (5 units)**

Basic principles of chemistry, including atomic structure, stoichiometry, reaction energy, chemical bonding, periodic relationships of the elements, states and properties of matter, solutions, introduction to acids and bases, a brief introduction to descriptive chemistry of the elements, and other topics as appropriate. The laboratory emphasizes quantitative methods. **Prerequisite:** Reading Level 5 or 6; CHEM B2a with a grade of "C" or higher or high school chemistry; MATH BD with a "C" or higher or 2 years of high school algebra. **Recommended:** Math prerequisite accomplished within previous 2 years. **Hours:** 54 lect, 108 lab. Offered: F,S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE B.1; CSU GE B.1, B.3; IGETC 5.A.

**CHEM B1b General Chemistry and Chemical Analysis (5 units)**

Continuation of CHEM B1a. Includes kinetics; equilibrium; thermodynamics; equilibrium as it applies to acid-base, solubility, and electrochemistry; nuclear chemistry; coordination chemistry; the descriptive chemistry of selected elements; and an introduction to organic chemistry. The laboratory includes qualitative analysis, quantitative techniques, and descriptive experiments. **Prerequisite:** CHEM B1a with a grade of "C" or better. **Recommended:** Chem prerequisite accomplished within two years prior to taking this class. **Hours:** 54 lect, 108 lab. Offered: S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**CHEM B2a Introductory General Chemistry (4 units)**

The principles and applications of general college chemistry. Designed for liberal arts, physical education and some baccalaureate nursing majors. Recommended also for students who need additional background for the more intensive course, CHEM B1a. **Prerequisite:** MATH BA with a grade of "C" or equivalent and Reading Level 5 or 6. **Recommended:** Math prerequisite accomplished within previous 2 years. **Hours:** 54 lect, 54 lab. Offered: F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. **Note:** Not open to students with credit in CHEM B1a. BC GE B.1; CSU GE B.1, B.3; IGETC 5.A.

**CHEM B3 General Chemistry and Chemical Analysis for Engineers (3 units)**

Continuation of CHEM B1a, primarily for engineering majors. Includes kinetics; general and ionic equilibrium; thermodynamics; solubility; electrochemistry; nuclear chemistry; metallurgy; descriptive chemistry of silicon, ceramics, organic compounds and polymers. The laboratory includes qualitative analysis, quantitative techniques, and descriptive experiments. **Prerequisite:** CHEM B1a with a grade of "C" or better. **Hours:** 36 lect, 36 lab, 18 disc. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges.

**CHEM B11 Principles of Inorganic, Organic and Biochemistry (5 units)**

A systematic study of the principles of inorganic, organic and biochemistry using a qualitative and quantitative approach. Topics include physical principles of chemistry; inorganic compounds and reactions; a survey of organic chemistry-classification, compounds, reactions, nomenclature; biochemistry-classification, composition, reactions in living organisms. **Prerequisite:** MATH BA with a grade of "C" or equivalent. Reading Level 5 or 6. **Recommended:** Math within the last two years. **Hours:** 54 lect, 108 lab. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE B.1; CSU GE B.1, B.3; IGETC 5.A.

**CHEM B18 Elementary Organic Chemistry (5 units)**

A survey of organic compounds, including the fundamental organic functional groups, proteins, fats, carbohydrates, and representative types of organic chemical reactions. For students interested in chemical industries, medicine, dentistry, pharmacy, biology and related biological fields, engineering, medical terminology, and chiropractic, or students requiring only one semester of organic chemistry to complete chemistry requirements. Laboratory covers fundamental techniques in organic chemistry, including synthesis, separation, identification, and instrumental analysis. Emphasizes handling of small sample sizes. **Prerequisites:** CHEM B1a with a grade of "C" or higher, or CHEM B2a with a grade of "B" or higher. **Hours:** 54 lect, 108 lab. Offered: S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. CSU GE B.1, B.3; IGETC 5.A.

**CHEM B49 Applied Chemistry (4 units)**

The systematic study of the principles of applied inorganic, organic, and biochemistry using a qualitative and quantitative approach. Topics include physical principles of chemistry; inorganic compounds and reactions; basic and applied nuclear chemistry, (including radioactivity, nuclear energy, uses of radioisotopes, radiation hazards); a survey of organic chemistry (classification, compounds, reactions, nomenclature); biochemistry (classification, composition, reactions in living organisms). The course emphasizes technical aspects of chemistry relating to everyday processes and industrial and environmental applications. **Prerequisite:** MATH BA or equivalent. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 18 disc, 36 lab. Field trips may be required. **CCS:** Liberal

Arts & Sciences. **Transferable:** CSU and private colleges. BC GE B.1; CSU GE B.1, B.3.

## CHICANO STUDIES

### CHST B20ma Mariachi Ensemble (1 unit)

Practical experience in Mariachi Ensemble. **Hours:** 54 lab. Field trips may be required. **Repeat:** 3. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. **Note:** Elective credit only. Not open to students who have taken the equivalent course, MUSC B20ma.

### CHST B30a Early Chicano History (3 units)

A survey of the history of the peoples of the Mexican-American borderlands, from Pre-Columbian times until 1848. Examines the social, economic, and political evolution of the region with emphasis upon the inter-relationships between the histories of the United States and Mexico. Partially satisfies the requirements in U.S. Constitution, American history and institutions. **Recommended:** English 1 and Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. **Note:** Not open to students who have taken the equivalent course, HIST B30a. BC GE D.2, D.3; CSU GE D.3, D.6; IGETC 3.B, 4.

### CHST B30b History of Chicanos in the Southwest (3 units)

Survey of the Chicanos and the United States with an emphasis on the development of California and the Southwest from 1848 to the present. Examines significant events in at least 100 years of U.S. history, the relationship of regions within the U.S. area, the relationship with external regions and powers, the role of major ethnic groups, the continuity of American experience and the derivation from other cultures. Also examines the aftermath of the U.S. Mexican War, 1846-1848, the interrelationship of Mexican and U.S. history between 1860 and 1910; the effects of the Mexican Revolution of 1910 on the 20th century experience of Chicanos in the U.S., and the study of the California State Constitution. Partially satisfies the requirements in U.S. Constitution, American history and institutions. **Recommended:** Eligibility for English 1 and Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. **Note:** Not open to students who have taken the equivalent course, HIST B30b. BC GE D.2, D.3; CSU GE D.3, D.6; IGETC 3.B, 4.

### CHST B30e Art of Latin America (3 units)

This course is a historical survey of the arts in Latin America. The focus is on the Spanish-speaking regions of the Americas, as well as Cuba and the Dominican Republic. Students examine artistic contributions by Latin American artists to colonial and modern art forms. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. **Note:** Not open to students who have taken the equivalent course, ART B30e. BC GE C; CSU GE C.1; IGETC 3.A.

### CHST B33 Latin American History (3 units)

Historical survey of the social, economic and political development of Latin America, including the formation of pre-Columbian civilizations through establishment of the Spanish and Portuguese colonial systems to nation building of the modern era. Examines the impact of the United States foreign policy on the development of Latin America. **Recommended:** Eligibility for ENGL B50 and Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. **Note:** Not open to students who have taken the equivalent course, HIST B33. BC GE D.2, D.3; CSU GE D.3, D.6; IGETC 3.B, 4.

### CHST B36 Sociology of the Chicano (3 units)

A survey of the socioeconomic characteristics of the Chicano community in the United States. Emphasizes the inter-relationships of Chicanos and society including the process of assimilation, minority status, and Chicano culture. **Recommended:** Reading Level 5 or 6, English Level 5. **Hours:** 54 lect. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. **Note:** Not open to students who have taken the equivalent course, SOCI B36. CSU GE D.3, D.0; IGETC 4.

## CHILD DEVELOPMENT

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

(DSS) at the end of some course descriptions refers to California Department of Social Services categories under Title 22.

### CHDV B13c Child Growth and Development: The Infant Toddler Years (3 units)

Study of theory, research, cognitive and sensory development of the Infant Toddler Years. Class will look at mother-child interactions as well as role of caregivers along with age appropriate curriculum and infant programs. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect/disc. Field trips required. **Offered:** F,S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. **Note:** Elective credit only. (DSS 4)

### CHDV B20 Introduction to Child Growth and Development (3 units)

Provides an introduction to the history, philosophy and theories of child growth and development and the education of young children. Emphasizes techniques of observing and recording the development of young children from infancy to 8 years. Communicating to parents the value of age appropriate activities, and cultural sensitivity are also covered throughout the course. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect/disc. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. (DSS 1, 3)

### CHDV B21 Child Growth and Development: Birth Through Adolescence (3 units)

The interdisciplinary study of physical, social, emotional, and

intellectual development from conception through adolescence. The family and broader cultural environments provide the context for the study. Topics include historical views of children, developmental theories, research methodology, and patterns of growth. **Recommended:** Reading Level 5 or 6, CHDV B20. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** UC, CSU, and private colleges. DSS1. BC GE D.1; CSU GE D.7, E; IGETC 4.

### **CHDV B22 Observation and Assessment - Birth Through Adolescence (3 units)**

Course includes acquisition and application of basic observation skills regarding children's physical, cognitive, language, social and emotional development from birth to adolescence. **Prerequisite:** CHDV B21 with a grade of "C" or better (may be taken concurrently, formerly CHDV B13a). **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **CHDV B32 Teaching in a Diverse Society (3 units)**

The relationship between critical aspects of culture and the social-emotional development of children, adolescents and adults is analyzed from an anti-bias, multicultural perspective. Diversity is examined through the different values, beliefs, modes of communicating, behaving and perceiving the world. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only. (DSS 3)

### **CHDV B33 Survey of Special Education (3 units)**

Introduction to special education in the public schools. Emphasizes legal aspects, assessment and placement. Includes examination of all disabilities served in the public schools and day care settings and the role of child care professionals and paraprofessionals in the field of special education. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only. (DSS 3)

### **CHDV B36 Developmentally Appropriate Curriculum (3 units)**

Planning for and implementation of developmentally appropriate curriculum for children ages birth - 8 years. Includes major concepts and theories of child growth and development for children in infant/toddler, preschool, kindergarten and early primary grades. Students will be expected to observe and assess classroom environments using their knowledge of developmentally appropriate practices. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S, SS. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. (DSS 3)

### **CHDV B40 Creative Art, Movement, and Music Activities for Young Children (3 units)**

Materials, methods, and objectives in teaching art, movement, and music activities for children birth to six years old. The

growth of creativity through developmentally appropriate activities, and communicating to parents the value of play will be emphasized. Meets Child Development Associated Options, competencies numbers 4 and 7. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect/demo. Field trips required. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. (DSS3) **Note:** Elective credit only.

### **CHDV B41 Principles and Practices of Early Childhood Education (3 units)**

Basic techniques of working with young children including promoting self-esteem; creativity; self-discipline; development of physical and cognitive skills; and planning appropriate curriculum. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect./disc. **Offered:** F, S, SS. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. (DSS 3) **Note:** Fulfills requirement for Child Development Teacher Permit Matrix. Note: Elective credit only. Replaces CHDV B41a and CHDV B41b.

### **CHDV B41L Supervised Field Experience in Early Childhood Education (3 units)**

Supervised field experience working with children two to five years of age in a Child Development Center applying knowledge gained in CHDV B41 (or CHDV B41a or CHDV B41b). **Recommended:** Reading Level 5 or 6, concurrent enrollment in CHDV B41 or completion of CHDV B41 or CHDV B41a or CHDV B41b with a grade of "C" or better. **Hours:** 162 lab. **Offered:** F, S, SS. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. (DSS 3) Note: Elective credit only. This course replaces CHDV B41aL and CHDV B41bL.

### **CHDV B42 Child, Family and the Community (3 units)**

Includes the study of the socialization of children in developmental, family and community contexts, with a focus on child rearing, child caring, and early education. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. (DSS 2)

### **CHDV B43 Techniques of Parent Education (2 units)**

The philosophy, materials, and techniques necessary for a viable parent education program for parents of young children, including conducting group discussions, parent meetings and conferences, developing parents' self-esteem and participation. Developing teacher communication skill will be emphasized. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

### **CHDV B44 Infant/Toddler Care and Development with Supervised Field Experience (3 units)**

Infant/toddler development - physical, emotional, social and intellectual. Principles of child care, nutrition, health practices, and curriculum for children ages birth through two years. Supervised field experience in an infant/toddler center.

**Recommended:** Reading Level 5 or 6. **Hours:** 18 lect, 108 lab. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. (DSS 4). Note: Elective credit only. CHDV B44L has been combined with CHDV B44.

### **CHDV B45a Administration of Programs for Young Children: Business Procedures (3 units)**

Administration of programs for young children including private and publicly-funded child care centers and preschool programs. Emphasizes business procedures and public policy. **Recommended:** CHDV B41a and CHDV B41b with a grade of "C." Reading Level 5 or 6. **Offered:** F, S, SS. **Hours:** 54 lect. Field trips required. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. **Note:** Elective Credit only. (DSS 6)

### **CHDV B45b Administration of Programs for Young Children: Personnel Management Procedures (3 units)**

Administration of programs for young children including private and publicly-funded child care centers and preschool programs. Emphasizes personnel management and public policy. **Recommended:** CHDV B41a and CHDV B41b with a grade of "C." Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **Offered:** F, S, SS. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. **Note:** Elective credit only. (DSS 6)

### **CHDV B47 Children in Crisis (3 units)**

Understanding and recognizing emotional, social, and behavioral manifestations in children likely to experience future emotional and educational problems. Emphasizes identification of high risk groups and development of an appropriate support referral system for such children.

**Recommended:** Reading Level 5 or 6. **Hours:** 54 lect/disc. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **CHDV B48 Introduction to Elementary Education (3 units)**

Introductory class for students considering teaching as a profession. Emphasizes career opportunities and issues in education. Requires observations in elementary classroom. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 18 observation by arrangement. Field trips required. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **CHDV B49 Child Health, Safety and Nutrition (3 units)**

For parents, aides, teachers, and directors of child care facilities. Addresses biological, psychological and sociological needs, assessments, issues, policies, procedures and how they impact a child's development. Emphasis is placed on demonstration and application of course content within the family and community. Pediatric CPR and First Aid certification is completed (books and certification costs are at the student's expense). Totally fulfills California licensing mandate of 15 hours of training in preventative health practices. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **Offered:** F, S, SS.

**CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only. (DSS 7); BC GE E

### **CHDV B50 Creative Use of Literature and Puppetry with Young Children (3 units)**

Exposes student to creative use of literature and puppetry to be used with preschool aged children. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. Note: This course replaces CHDV B57, CHDV B70K and CHDV B70C.

### **CHDV B52 Care of Infants and Toddlers with Disabilities (3 units)**

Interdisciplinary course designed to prepare child care workers and educational aides to care for disabled and chronically ill infants and toddlers. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **Offered:** F,S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **CHDV B53a Early Childhood Education: Adult Supervision (2 units)**

A study of the methods and principles of supervising and teaching adults in early childhood classrooms. Emphasis is on the role of experienced classroom teachers who function as a supervisor and/or mentor for staff or new teachers in a child care environment while simultaneously addressing the needs of children and parents. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. (DSS 6)

### **CHDV B67 The School Age Child (3 units)**

Social, emotional, physical and cognitive development of the child through the preadolescent years, including planning curriculum and structuring the environment for each stage and classroom activities. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips may be required. **Offered:** F,S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **CHDV B68 Topics in Extended Day Care for School Age Children (1 unit)**

Current information for working with the school age child. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect/disc. **CCS:** Occupational Education. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. (DSS 5)

### **CHDV B69 Science and Math for Young Children (3 units)**

Exposes student to concepts of math and science for young children. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips may be required. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. Note: This course replaces CHDV B70H, B70Q.

### **CHDV B70 Topics in Child Development (0.5-1 unit)**

Current information on child development issues and curricula. Recommended as update courses for licensed teachers. **Recommended:** Reading Level 5 or 6. **Hours:** 9 lect/disc

for each 0.5 unit. **Repeat:** as indicated. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. (DSS 3)

### CHDV B 70z Continuing Professional Development.

Attendance and participation in selected/approved community events concerning children and their families, early childhood education, professional development, and related topics.

**Prerequisite:** None. **Recommended:** None. **Hours:** 9 lect for each 0.5 unit. **Offered:** F, S. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### CHDV B71h Topics in Foster Parenting: Independent Living Skills (1 unit)

Emancipation skills training for youths ages 15-18 years in foster care and/or probation. **Recommended:** Reading level 5 or 6. **Hours:** 27 lab. Field trips may be required. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### CHDV B71m Foster and Kinship Care Education (0.5 -1 unit)

Various topics that satisfy training mandated by the Kern County Department for foster parents and kinship givers. **Hours:** 9 lect for each 0.5 unit. **Offered:** F, S. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

## COMMUNICATION

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

### COMM B1 Public Speaking (3 units)

Instruction in the composition, presentation and evaluation of original speeches and critical assessment of other communication events. Emphasizes topic selection, research, organization, development, delivery, audience analysis and critical analysis of persuasive communication. **Recommended:** English Level 6, Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE A.1; CSU GE A.1; IGETC 1.C.

### COMM B2 Interpersonal Communication (3 units)

Introduction to all aspects of the communication process including intrapersonal, interpersonal, and group communication, as well as speaking in public. Emphasizes an understanding of communication in everyday life in conjunction with a knowledge of how to present ideas, thoughts and feelings. Introduction to various theories of interpersonal communication; participation in experiences designed to enhance competence and develop skills in interpersonal relationships. **Recommended:** English Level 6, Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE

A.1; CSU GE A.1; IGETC 1.C.

### COMM B4 Persuasive Communication (3 units)

Principles and practices of persuasion in various communication settings. Prepare and deliver persuasive speeches for specific audiences. **Recommended:** English Level 6 and Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE A.1; CSU GE A.1.

### COMM B5 Rhetoric and Argumentation (3 units)

Theoretical and practical aspects of argumentation and public debating to develop students' critical thinking abilities. Emphasis is on composition, presentation, and evaluation of speeches in argumentative, debate, and advocacy contexts. Identification of public issues, research and organization of evidence, building sound and effective arguments, and facility with debate formats are the primary learning outcomes of this course. Introduces logical reasoning and builds competence with formal reasoning before applying those to argumentation and debate about public issues. **Recommended:** English Level 6, Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE B.2; CSU GE A.3.

### COMM B6 Intercultural Communication (3 units)

Study of basic theory and skills of intercultural communication. Emphasis is given to communicating effectively in diverse social and professional environments. Focus will also be given to the analysis and comparisons of message perception and transmission in interactions between people from different cultures. Practical application of these skills will also be highlighted. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE D.1; CSU GE D.3, D.7; IGETC 4.

### COMM B7 Organizational Communication (3 units)

Concentrates on a global look at communication in an organizational setting: theory and practice of communication in private and public organizations, interpersonal and group communication patterns within organizations, systems of ethical internal and external communication, leadership in the organization, organizational culture's impact on communication, and the role of communication in achieving organizational goals. Includes team projects that will require work outside of class and visits to a community location of your team's choosing. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges. BC GE D.2; CSU GE D.7.

### COMM B8 Small Group Communication (3 units)

This oral communication class examines small group processes such as group formation and development, conflict, problem solving, and group climate. Covers an understanding of diversity, leadership roles, and theory. Students participate in class groups where experiential learning and presentations are part of the class experience. A field trip may be required. **Recommended:** English Level 6 and Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts and Sciences. **Transferable:**

UC, CSU and private colleges. BC GE A.1; CSU GE A.1; IGETC 1.C.

### COMM B9 Health Communication (3 units)

This course introduces students to the theory and practice of health communication in dyadic, small group, organizational, and mass media contexts. Students examine topics such as provider-client communication, the influence of diversity and culture on health communication, and the role that the mass media plays in disseminating health information. Selected topics and theories of human communication are directly applied to communication situations in health care settings through the use of case studies. Emphasis is on understanding and improving health communication among health professionals, between health professionals and clients, and with the general public. **Recommended:** English Level 6, Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges.

### COMM B10 Leadership and Communication (3 units)

This course presents theories of communication, leadership and followership as they explore the essential role communication plays in leadership at all levels. The course emphasizes the study of communication skills that are central to performing successfully as a leader in a variety of contexts including organizational, familial, team and public settings. Specific attention is given to self-assessment of leadership and communication skills, self-reflection, and creation of a personal leadership communication plan. **Recommended:** English Level 6, Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** S. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges. Note: Elective credit only.

### COMM B27 Intercollegiate Speech Competition Preparation (1-2 units)

Training in various speech forms for forensic and community speaking. Intensive discussion and practice in prepared and limited preparation events including humorous, oral interpretation, readers' theatre, duet interpretation and communication analysis. **Recommended:** English Level 6, Reading Level 5 or 6. **Hours:** (54-108) 1 unit: 54 lab; 2 units: 108 lab. Field trips required. **Repeat:** 3. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

### COMM B27L Intercollegiate Speech Competition Laboratory (0.5-3 units)

Participation in intercollegiate speech competitions and community speaking situations. Specialization in debate, humorous, oral interpretation, readers' theatre, duet interpretation, persuasive, impromptu, extemporaneous, or communication analysis required. **Recommended:** English Level 6, Reading Level 5 or 6. **Hours:** 27 lab for each 0.5 unit. Field trip required. **Repeat:** 3. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

### COMM B49a Communication Ambassadors (3 units)

This course allows students to apply a variety of skills learned in other Communication classes. Students will participate in a variety of practical projects including: public speaking, leadership, project management, event planning, administration of programs, database management, speaking to members of the community and high schools and research projects. The goal of this class is to strengthen communication skills and broaden students' understanding of the discipline. **Prerequisite:** COMM B1 or COMM B2 or COMM B4 or COMM B5 or COMM B6 or COMM B7 or COMM B8, or evaluation by instructor of student's public speaking, interpersonal, and group skills. **Recommended:** Reading Level 5 or 6. **Hours:** 54. **Repeat:** 3. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges.

### COMM B49c Political Communication: The Presidential Election (3 units)

This course examines theories and practices of political communication during presidential elections. Students will focus on methods that candidates, parties, and stakeholders use to communicate political messages. Students will examine the use of both traditional media and emerging technologies in contemporaneous political campaigns. Students will also analyze and criticize candidate speeches and debate performances. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges. Note: Elective credit only.

## COMPUTER STUDIES

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

### COMS B2 Introduction to Computer Information Systems (3 units)

Introduction to the concepts of computer information systems as problem-solving tools in business, economics, mathematics, the sciences and other disciplines. Includes the history of computing, computer hardware, operating systems, computer networking and communication systems, the Internet, and ethical and societal implications of computer usage. An overview of personal computer applications software (word processing, spreadsheets, and personal database management systems) is also included. **Recommended:** Minimum one year of high school algebra or MATH BA and Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S, SS. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. Not open to students who have taken COMS B3.

### COMS B3 Computer Concepts and Survival Skills (3 units)

An introduction to computers and computer information systems as problem-solving and personal productivity tools. The focus of the course is to provide "survival skills" and computer literacy that most computer users need today. The lecture portion includes a brief history of computing, computer hardware and software, communications, the internet, and ethical and societal implications of computer

use. The lab portion provides hands-on experience with software and techniques that will help students to be productive personally and professionally. Examples include: word processing, spreadsheets, backup, anti-virus, anti-spyware, communications, multimedia, Email, web-based research, and operating systems. **Recommended:** Reading Level 5 or 6. **Hours:** 27 lect. 27 lab. Offered: F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Not open to students who have taken COMS B2.

### COMS B5 Introduction to Microcomputer Applications using Microsoft Office 2007 (3 units)

Intended for home users and business people who desire a working knowledge of personal computer hardware and software. Special emphasis on software that is most widely used in Kern County as well as the nation. Mainly focuses on business and home applications of personal computers. Hands-on training with word processing, spreadsheets, database management systems, electronic presentations, and the necessary operating system fundamentals to use the listed application software. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Repeat:** 1. **Offered:** F, S, SS. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### COMS B10 Structured Program Design using Python (2 units)

Fundamentals of writing computer programs. Emphasis is on the development of logic to solve problems. Covers various tools and techniques used to write structured programs using any programming language. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### COMS B14 Introduction to Programming with Java (3 units)

Fundamentals of structured programming and operating systems in Java. Develops structured programming and problem solving skills and provides experience in using the computer in a variety of applications. **Prerequisite:** MATH BA or one year of high school algebra or equivalent or evaluation by instructor of the student's math skills. **Recommended:** Reading level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.

### COMS B16 COBOL Programming Language (3 units)

The fundamentals of the COBOL programming language. Writing structured COBOL programs to solve various types of business problems. **Recommended:** COMS B2, Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### COMS B25 Programming with C (3 units)

Fundamentals of structured programming and operating computer systems in C. Develops structured programming and problem-solving skills and provides experience in using the computer in a variety of applications. **Prerequisite:** Successful

completion of a high-level programming language course, or an assembly language course such as COMS B11, or B12, or B14, or B16, or ENGR B19f or B19c. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.

### COMS B27 Introduction to Assembly Language (3 units)

Fundamentals of assembly language programming. Topics include binary, octal and hexadecimal arithmetic, data storage, bit manipulation, processor architecture and instruction set, system hardware, operating-system supervisory functions, program modularization through effective use of macros and procedures, use of assembler, linker, object-library manager, and debugger utilities, and I/O to/from the screen, keyboard and auxiliary storage. Emphasizes the development of libraries (macro and object) of commonly-used input/output routines. The primary machine for the course will vary; the major topics of the course are common to assembly-language programming on any processor, and in any environment. **Prerequisites:** At least one course in high level computer programming language. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** S. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.

### COMS B32 Programming with Visual Basic (3 units)

Designed as an intermediate-level programming class. Students are introduced to an object-oriented, data-driven language. Explores the Visual Basic programming language to create real-world applications. Topics include: OOP concepts; Visual Basic NET IDE; graphical interfaces (GUI); structured programming concepts; file processing; debugging; designing; building, and accessing ADO databases; classes and objects. **Recommended:** A high-level programming language. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### COMS B34 SQL and Database Systems Design (3 units)

Course emphasizes "best practices" for relational database design (modeling) and the use of Structured Query Language (SQL) for database manipulation. Normalization, data diagramming, concurrency and other key database concepts will be discussed. The use of Microsoft Access, MySQL, Microsoft SQL Server, and other database management systems will be used to demonstrate concepts. Upon successful completion of this course, students will be able to design real world databases and manipulate them using SQL. **Recommended:** At least one programming language or application that uses formatted data files (COMS B5, B12, B14, B16, B25, B32, B36, B68a). **Hours:** 54 lect. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

### COMS B35 OOP and Data Structures with C++ (3 units)

Object-oriented programming and data structures using C++. Topics include a quick review of the kernel language (ANSI standard C), abstract data types, encapsulation, function and operator overloading (polymorphism), container classes, and

inheritance. Topics also include stacks, queues, and ordered lists implemented as static arrays, dynamic arrays, linked lists, and binary trees. **Prerequisite:** COMS B25 or evaluation by instructor of student's knowledge of the C programming language. **Hours:** 54 lect. **Offered:** S. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.

### **COMS B37 Introduction to Geographic Information Systems (GIS) (3 units)**

An introduction to methods of managing and processing spatial data. Covers the basic assumptions, concepts, theories, and structures of geographic information systems. Hands-on experience in data input, management, analysis, and display. **Recommended:** COMS B2 or COMS B5, or evaluation by the instructor of student's knowledge of computer information systems and software applications. **Hours:** 54 lect. Field trips required. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. **Note:** Not open to students who have taken the equivalent course, INDR B37.

### **COMS B40 Special Topics in Computing (0.25 - 3 unit)**

Special computer technology topics of interest and concern, including recent developments in the field of computing. **Hours:** 4 lect for each 0.25 unit. **Repeat:** 3. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **COMS B41 CompTIA Linux+ (3 units)**

A general introduction to Linux Installation and Administration. Covers the essentials of installing, configuring, maintaining, administering and troubleshooting the Linux Operating System. Preparation for Exams 1 and 2 of the Sair Linux and GNU certification, and Level One exam of Linux Professional Institute Certification. **Recommended:** Reading level 5 or 6. **Hours:** 54 lect, 54 lab by arrangement. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **COMS B51 Assistive Technologies and the Internet (2 units)**

Students will actively engage in assessment, identification, and development of effective computing techniques using standard and assistive technology. Identify and develop individual learning preferences and strategies (visual/verbal, etc.), evaluate computer input and output options for increased usability, and improve access through specialized Text-to-Speech software applications. Students will also learn to use basic tools and features in Internet Explorer to conduct searches, identify credible information, locate academic and general information, and use a variety of online resources to complete a research project. **Recommended:** Reading Level 4. **Hours:** 36 lect/disc. **Offered:** F, S, SS. **Repeat:** 3. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not Degree Applicable.

### **COMS B52a Introduction to the Microcomputer and Windows (1.5 units)**

An introduction to the microcomputer and the Microsoft Windows operating system. Provides a basis for computer literacy and enables the students to use the Windows operating system. Students will learn the use of the mouse, the desktop,

how to work with files, how to work with printers and fonts, use Windows Explorer, use Accessories, how to customize and enhance the performance of the operating system, how to search for files, and have a brief introduction to the Internet. **Hours:** 27 lect. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **COMS B53 Intermediate Microcomputer Applications using Microsoft Office (3 units)**

A continuation of COMS B5. Intermediate capabilities of word processing, spreadsheet, database management system and electronic presentation application software programs. **Prerequisite:** COMS B5 or evaluation by instructor of student's Word, Excel, Access, PowerPoint, and operating system skills. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 27 lab by arrangement. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **COMS B54 Introduction to OpenOffice (1.5 units)**

Introduction to a free Open Source OpenOffice software application suite. Covers basic word processing, spreadsheets, presentation, and database applications in OpenOffice. **Recommended:** COMS B52a, COMS B5. **Hours:** 27 lect. **Repeat:** 3. **CCS:** Occupational Education. **Not Transferable:** Not Degree Applicable.

### **COMS B57a Introduction to Microsoft Office Word 2007 (1.5 units)**

Use of the Microsoft Word for Windows word processing application. Word Processing features such as creating, saving, editing and retrieving documents will be covered. Also included will be formatting, merging, sorting, and macros. **Hours:** 27 lect. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **COMS B61 E-Commerce (1 unit)**

Introduces students to E-commerce basics. Emphasis is placed on exploring marketing issues, payment processing, collections, security, and customer service. **Recommended:** Reading level 5 or 6. **Hours:** 18 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students who have taken the equivalent course, BSAD B91.

### **COMS B62a Introduction to Microsoft Office Excel 2007 (1.5 units)**

Introduces students to the use of electronic spreadsheets. Covers the application interface, setting up a spreadsheet, formatting, formulas, functions, charts, workbooks, with multiple spreadsheets, web interaction, decision-making, and sorting and extracting data. **Recommended:** COMS B52a or evaluation by instructor of student's ability to use a microcomputer. **Hours:** 27 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **COMS B68a Introduction to Microsoft Office Access 2007 (1.5 units)**

An introductory level course in the use of the Microsoft Access database management program. Designed to provide tools to

solve typical database problems. Includes the design of tables, relationships, queries, forms, reports and web pages to provide customized information. **Hours:** 27 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **COMS B70a Introduction to Microsoft Office Powerpoint 2007 (1 unit)**

An introduction to the use of the Microsoft Powerpoint presentation package to create professional quality electronic presentations. Covers the basics of using Powerpoint as well as the basics of how to plan and build a presentation, making color and text choices, and adding graphics and other media. Also covers using Powerpoint to convert existing information such as word processing, and graphic data into a presentation. **Hours:** 18 lect. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **COMS B73 Introduction to the Internet (1.5 unit)**

An introduction to the history, structure, and use of the Internet. Students will learn how to browse the Internet, efficiently find reliable information online, communicate online, download files, and create a simple web page. They will also learn methods of protecting themselves and their computers from online security risks. **Hours:** 27 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **COMS B74a Web Design: Macromedia Dreamweaver (3 units)**

An introduction to the design, planning and creation of Web sites using a variety of resources. Emphasizes the use of popular Web-authoring tools to create custom Web pages without the knowledge of hypertext markup language. **Recommended:** COMS B52a or evaluation by instructor of the student's ability to use Windows; COMS B73 or evaluation by instructor of student's ability to navigate the Internet. Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **Repeat:** 3. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **COMS B74b Web Design: HTML & XML (3 units)**

An introduction to using hypertext mark-up language(s) to create Web sites. Students will learn how to create, debug and modify websites using mark-up language(s). **Recommended:** COMS B52a or evaluation by instructor of student's ability to use Windows; COMS B73 or evaluation by instructor of student's ability to navigate the Internet. Reading level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **Repeat:** 3. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **COMS B74c Web Development: JavaScript/CSS (3 units)**

Uses JavaScript, Cascading Style Sheets, and other scripting languages to create web sites. Emphasizes scripting for flexibility, interactivity and dynamic content. Students will learn basic programming concepts and techniques, using HTML and popular scripting languages. Includes a brief introduction to the Java programming language. **Recommended:** COMS B74b. **Hours:** 54 lect. **Repeat:** 3. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **COMS B74e Web Design: Advanced Dreamweaver (3 units)**

Designing and implementing intermediate web-authoring components and concepts using Macromedia Dreamweaver. Covers techniques for implementing tables, frames, forms, components and data-driven applications in an intermediate-level-setting. Also covers integration of design with technology components. **Recommended:** COMS B74a or evaluation by instructor of student's web authoring skills. **Hours:** 54 lect. **Repeat:** 3. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **COMS B74f Advanced Web Development: Web Authoring Tools (1.5 units)**

Advanced web-site construction, design, and management tools present in FrontPage 2000, and their effective use in designing and creating web pages. **Prerequisite:** COMS B74e or evaluation by instructor of student's web authoring skills. **Hours:** 27 lect, 27 lab by arrangement. **Repeat:** 3. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **COMS B75a Web Application Development: Database Driven Web Sites (1.5 units)**

Students will learn how to use the tools in Microsoft Access and Microsoft FrontPage to develop database-driven web sites. Covers the appropriate use of database-driven web pages and basic web server set up and management. **Prerequisite:** COMS B74a or evaluation by instructor of student's web design experience. **Hours:** 27 lect, 27 lab by arrangement. **Repeat:** 3. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **COMS B75b Web Programming: Active Server Pages (3 units)**

An overview of the use of Active Server Pages to develop Web applications that incorporate server-side scripting, database connectivity and communication protocols. **Hours:** 54 lect, 54 lab by arrangement. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **COMS B75c Web Programming: PHP (3 units)**

An introduction to the use of the PHP platform to develop dynamic web applications. Covers the origins, syntax and structure of PHP, as well as the PHP-specific commands and objects and their use in PHP development. **Hours:** 54 lect, 54 lab arranged. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **COMS B75d Web Application Development: ColdFusion (3 units)**

An introduction to the use of the ColdFusion platform to develop dynamic web applications. Covers the basic syntax, tag structure and server functions, as well as the use of ColdFusion to read from and write to a database. **Prerequisite:** COMS B74b. **Hours:** 54 lect, 54 lab arranged. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**COMS B75e Web Dev: Ruby on Rails/AJAX (3 units)**

An introduction to the Ruby on Rails framework for rapidly developing web applications using databases and the Ruby programming language. **Recommended:** COMS B74a or evaluation by instructor of student's web authoring skills.

**Hours:** 54 lect. **Repeat:** 3. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**COMS B76a Web Design: Macromedia Flash (3 units)**

The use of Macromedia Flash to develop interactive, animated web sites. Students will learn how to create custom graphics, import images and music, and create animated movies using various animation techniques and ActionScript, Flash's internal scripting language. **Prerequisite:** COMS B74a or evaluation by instructor of student's web design experience. **Hours:** 54 lect, 54 lab by arrangement. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**COMS B76b Web Design: Advanced Flash (1.5 units)**

An advanced class focusing on the use of ActionScript to produce interactive web sites in Macromedia Flash. Covers objects, target paths, data validation, loading external assets and other concepts. **Prerequisite:** COMS B76a. **Hours:** 27 lect, 27 lab arranged. **CCS:** Occupational Education **Not Transferable:** Associate Degree only.

**COMS B77 Introduction to ArcGIS-1, an ERSI Authorized Training Program (1 unit)**

Creating, editing, querying, analyzing and displaying geographic and tabular data. Earn a Certificate of Specialization. A conceptual experience and hands-on experience using ArcView®. **Hours:** 18 lect, 18 lab by arrangement. **Repeat:** 3. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**COMS B77b Spatial Analysis and Data Modeling in GIS (1.5 units)**

Introduces the theories and technology behind spatial analysis and spatial modeling in geographic information systems (GIS). Takes the student beyond vector data and into raster (grid) datasets. Students learn to conduct meaningful analysis with GIS, which can be applied to conservation, municipal planning, business, and the social sciences. Covers the use of ArcGIS® Spatial Analyst, as well as ArcGIS® Model Builder. **Recommended:** COMS B37, or COMS B77, or evaluation by instructor of student's knowledge of computer information systems and software applications. **Hours:** 27 lect. **Repeat:** 2. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**COMS B78 Advanced ArcView GIS (1 unit)**

Advanced techniques to perform complex analyses on geographic data by applying ArcView's core functionality. Topics include data management; data presentation in layouts, reports, and interactive applications; spatial analysis and spatial modeling; Avenue scripts and Arc View extensions. Students can earn an ESRI Certificate of Specialization in Advanced

Arc View GIS. **Prerequisite:** COMS B37 or COMS B77 or the equivalent. **Hours:** 27 lect. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**COMS B79 Advanced Programming with Visual Basic (3 units)**

Advanced techniques to design and implement desktop applications with Visual Basic. Topics include COM, ActiveX, using ADO, the Windows API, creating MDI programs, classes and collections. **Prerequisite:** COMS B32 or evaluation by instructor of student's Visual Basic programming skills. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 54 lab by arrangement. **Offered:** F. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**COMS B80 CNA/CNE Network Administration - Novell (3 units)**

Fundamentals of managing a Novell network, using Novell administrative tools to set-up, manage, and employ basic network services, including file systems, network printing, security, and email. **Recommended:** Reading Level 5 or 6, COMS B52a and COMS B82. **Hours:** 54 lect, 54 lab by arrangement. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**COMS B82 CompTIA Network+ (Networking Technologies) (3 units)**

Designed for individuals interested in a career in computer networking. Course prepares students for the vendor-neutral CompTIA Network+ certification exam. Topics covered include: networking fundamentals, the OSI model, network protocols, logical and physical architectures in both local and wide area networks, the physical parts of a network (wiring, NICs, hubs, routers, bridges and switches), popular network operating systems, network troubleshooting and security. **Recommended:** COMS B52a (Windows Operating System) and Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**COMS B87 Introduction to Remote Sensing (1.5 units)**

An introduction to fundamentals of remote sensing science and digital image processing. Focus on remote sensing principles. Hands-on experience of the processing and interpretation of remotely sensed data using image processing techniques and software. This course is intended to provide information necessary to successfully use remotely sensed imagery in conjunction with other geospatial technologies to answer questions about the world in which we live. The class will cover the use of ERDAS Imagine® suite of software tools. **Recommended:** COMS B37, or COMS B77, or evaluation by the instructor of student's knowledge of computer information systems and software applications. **Hours:** 27 lect. **Repeat:** 2. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**COMS B91 MCSE Administering and Supporting Microsoft Server 2003 (3 units)**

Course serves as a detailed evaluation of Microsoft Windows server, including both the Client and Server software. Covers introductory and in-depth topics related to Client and Server Administration, as well as the core components of the operating system. This course is in preparation for the MCSE exams.

**Recommended:** COMS B52a (Windows Operating System), and COMS B82 (Network Technologies), and Reading Level 5 or 6. **Hours:** 54 lect, 54 lab by arrangement. **Offered:** F. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**COMS B92 Windows 2000 Professional (MCSE 70-210 Exam Prep) (3 units)**

Prepares students to take the Microsoft Certified Systems Engineer exam 70-210. Trains students in the operation of Microsoft Windows 2000 Professional and its integration with Microsoft Networking products. **Recommended:**

Reading level 5 or 6. **Hours:** 54 lect, 54 lab by arrangement. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**COMS B93 Microsoft Active Directory Services (MCSE 70-219 Exam Prep) (3 units)**

An introduction to Microsoft Active directory Services (MCSE 70-219 Exam Prep). Covers how to plan, configure, and administer active directory services. Hands on experience includes configuring Domain name System (DNS), managing user accounts and permissions, network resources, and how to implement and troubleshoot security in an active directory environment. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 54 lab by arrangement. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**COMS B95 MCSE Internetworking with Microsoft TCP/IP (3 units)**

This 'hands-on' course covers the fundamentals of the TCP/IP protocol suite, IP addressing, subnetting, Dynamic Host Configuration Protocol (DHCP), NetBIOS Name Resolution, implementing Windows Internet Name Service (WINS), Microsoft Domain Name System (DNS) servers, and SNMP Service, and troubleshooting Microsoft TCP/IP. **Recommended:** Reading level 5 or 6, COMS B52a and COMS B91. **Hours:** 54 lect. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**COMS B96 Applied Linux (3 units)**

Introduces students to the applied use of the Linux Operating System. Covers in-depth topics related to configuring both Client and Server software and administration. **Recommended:** COMS B41, COMS B82, COMS B95 or evaluation by instructor of student's ability to use the Linux Operating System and knowledge of computer networking. **Hours:** 54 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**COMS B100 Computer Hardware Diagnostics (4 units)**

Designed to cover the information and materials needed to enable students to successfully pass the A Plus examination. Deals with the hardware and software, installation and troubleshooting. The various diagnostic tools and methods used in the industry will be explored. **Hours:** 54 lect, 54 lab by arrangement. **Offered:** F. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**COMS B101 Web Systems and Security (3 units)**

This course builds upon the foundational knowledge from the more introductory web development courses to explore some of the more advanced and complex concepts that one should master in order to become a successful webmaster. **Prerequisite:** COMS B74b or evaluation by instructor of student's web design experience. **Hours:** 54 lect, 54 lab by arrangement. **Repeat:** 3. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**COMS B110 Computer Studies Internships (1-3 units)**

Work internship in a computer related field. **Hours:** 48-144 arranged. **Repeat:** 3. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**COMS B201 Computer Skills Development (1 unit)**

Computer Skills development through application to specific discipline areas. **Hours:** (Independent Study) Hours by arrangement. **Repeat:** 3. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CONSTRUCTION TECHNOLOGY**

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

**CNST B1 Introduction to Construction (3 units)**

Basic concepts of the construction industry. Overview of careers in construction, planning and layout, foundations and concrete, and light frame construction. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**CNST B2 Estimating and Scheduling (3 units)**

Techniques in estimating and scheduling for the building industry. Plan reading and the extraction of the information necessary to calculate quantities and costs are covered. The preparation of a cost breakdown for the use of a financial institution and a production schedule for the projects is completed in the class. The use of computer programs to calculate the cost and keep track of the scheduling is explored and practiced. Practice and theory are pursued. **Recommended:** CNST B1 or one year work experience in the construction related industry. **Hours:** 54 lect. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**CNST B3a Plumbing for Residential Construction (1.5 units)**

The study and discussion of local building codes, along with developing the basic skills of beginning students in the knowledge of plumbing materials, tools and equipment together with the basic technical knowledge required to enter the plumbing industry. Emphasis is on how to make all the common joints, and install the systems common to the plumbing trade as well as how to install finished fixtures and appliances. **Prerequisites:** CNST B1, CNST B2. **Hours:** 27 lect. Field trips required. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**CNST B3b Electrical for Residential Construction (1.5 units)**

The study and discussion of local building codes as related to residential electrical wiring, along with developing the basic skills of beginning students in the knowledge of electrical wiring materials, tools, and equipment together with the basic technical knowledge required to enter the electrical wiring industry. The student will learn the basic theory of electricity, and how to install the system most commonly used in the residential electrical trade and how to install finish electrical fixtures and appliances. **Prerequisites:** CNST B1, CNST B2. **Hours:** 27 lect. Field trips required. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**CNST B50ab Residential Construction (6-6 units)**

Course is intended to provide students with the practical experience and technical skills necessary to complete the actual construction of a single family residence from the site preparation and foundation through final completion. Various aspects of residential construction will be studied, discussed, performed or coordinated with the different trade subcontractors and instructor. The amount of time allotted for construction of this residence will not exceed one school year (2 semesters). **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 216 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**CNST B54a Cabinetmaking and Millwork (4 units)**

A highly structured, intermediate course in cabinetmaking and millwork designed to prepare students for employment in the cabinet/construction industry. Special attention to state-of-the-art techniques. **Prerequisites:** WOOD B2 or equivalent or evaluation by instructor of student's cabinetmaking skills. **Hours:** 54 lect, 90 lab. Field trips required. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**CNST B54b Cabinetmaking and Millwork (4 units)**

An advanced course in cabinetmaking, utilizing machine and hand techniques necessary for top- end construction. Residential and nonresidential type cabinets and the economical use of solid lumber; architectural millwork such as frame and panel wainscot, built-in furniture, desks, bars, doors, and windows; commercial applications such as store

fixtures, counters, and reception desks; computer-aided cabinet design. **Prerequisites:** CNST B54a or evaluation by instructor of student's cabinetmaking skills.. **Hours:** 54 lect, 90 lab. Field trips required. **Repeat:** 1. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**CORRECTIONAL ADMINISTRATION**

*Note: CADM courses numbered B1 through B4 have been changed to CRIM B21 through B24 and fall under Criminal Justice. For information on the following Public Safety Program training courses, call the Office of Public Safety at 395-4044.*

**CADM B54 Corrections Officer Core Course (7 units)**

Provides the student with necessary knowledge and skills required to effectively supervise inmates in a correctional setting. Designed to comply with the Corrections Standards Authority in the Standards and Training for Corrections Basic Core Course. Covers professionalism, ethics, laws, custody, supervision of inmates, handling of contraband, restraint techniques, cell extractions, weaponless defense, physical conditioning, first aid, and CPR. **Hours:** 90 lect, 118 lab. **Repeat:** 2. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**CADM B55 Deputy Probation Officer Core Course (3.5 units)**

Introductory probation officer training providing the necessary knowledge and skills for entry level deputy probation officers. Designed to comply with the State of California, Board of Corrections Standards and Training for Corrections (STC). Covers professionalism, ethics, introduction to the criminal justice system, laws, confidentiality, juvenile detention, case information and problem identification, interviewing, restitution, report writing, casework, counseling, monitoring and supervision offenders, officer safety, defensive tactics, and physical skills. **Hours:** 140 lect. 36 lab. **Repeat:** 2. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B56 Special Topics (0.2 - 3 units)**

Various mandated training topics required by Standards and Training in Corrections (STC) from the California Board of Corrections. **Hours:** 8 lect for each 0.2 units. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B57 Juvenile Institutions Officer Core Course (6 units)**

Designed to meet the requirements for entry-level staff for employment in a juvenile correctional institution. Written to comply with the State of California, Board of Corrections, Standards and Training for Corrections (STC). **Hours:** 116.5 lect, 51.5 lab. **Repeat:** 2. **Offered:** F, S, S. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B58 Supervisor Core Course (3 units)**

Provides the STC training curriculum for newly promoted corrections supervisors. Includes supervisory role identification, leadership styles, values, ethics, principles, assertive leadership, employee performance appraisals, liability issues and legal updates, discipline, employee counseling, investigations, report review, and team building. Meets the training requirements set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 56 lect, 24 lab. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B70a Prisoner Transportation (0.2 unit)**

Intended for peace officers, correctional officers, juvenile institutions staff and probation officers. Covers various modes of prisoner transportation, the risks involved, and how to achieve a secure transportation including the application and use of mechanical restraints. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 7 lect, 1 lab. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B70b Prison Gangs (0.2 unit)**

Intended for people working in law enforcement and corrections. Topics include identifying known prison gangs, gang member identification/activities, policies on gang validation recruitment measures, interviewing techniques and protective custody measures for gang dropouts. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 8 lect. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B70c Escape Prevention (0.2 unit)**

Intended for people working in corrections. Covers escape prevention procedures that deal primarily with basic institutional security principles, accountability of inmates, human error, and techniques used for escape prevention. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 8 lect. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B70d Suicide Prevention (0.2 unit)**

Designed for students who work in corrections. Covers identifying the potential for suicide, prevention techniques, intervention and responses including proper communication techniques during a crisis. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 8 lect. **Repeat:**

Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B70e Handling Aggressive and Assaultive Inmates (0.2 unit)**

Provides training to corrections staff. Examines the violent criminal, explains the reasons for inmate violence, and offers tools to de-escalate confrontations. Provides demonstrations and an opportunity to practice evasive defense tactics. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 4 lect, 4 lab. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B70f Sexual Harassment Prevention (0.2 unit)**

Designed for students who work in law enforcement/corrections. Identifies sexual harassment from a legal, moral and social concept. Provides advice and counsel on how to prevent sexual harassment in the workplace. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 8 lect. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B70g Understanding Prejudice (0.2 unit)**

Intended for people working in law enforcement and corrections. Covers tolerance of others who are unlike oneself, cultural differences, values and beliefs. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 8 lect. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B70h Crime Scene Preservation and Investigation (0.2 unit)**

Intended for correctional officers, juvenile institutions staff and probation officers. Provides the required competencies to identify a crime scene, preserve evidence, mark and collect physical, trace and transient evidence. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 6 lect, 2 lab. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B70i Anger Management (0.2 unit)**

Intended for people working in law enforcement and corrections. Provides students with tools to control their own anger as well as a process to deal with angry people. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 8 lect. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B70j Informant Development and Management (0.2 unit)**

Designed for students who work in corrections. Provides the communication tools and legal framework necessary for successful implementation, use and protection of informants in a correctional institution. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 8 lect. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B70k Anatomy of a "Set Up" - How Inmates Manipulate Correctional Staff (0.2 unit)**

Provides training to corrections staff on theories of crime, criminal thinking and behavior, how inmates will select, test and attempt to manipulate staff. Identifies the signs that contribute to and make employees receptive to a set up and con games. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 8 lect. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B70L Use of Force and Civil Liabilities (0.2 unit)**

Designed for students who work in corrections. Identifies specific trends in civil liabilities in the field of corrections with a focus on use of force. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 8 lect. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B70m Drug Recognition and Under the Influence (H&S 11550) (0.2 unit)**

Provides training to law enforcement, corrections and security officers (also recommended for educators). Prepares students to identify specific illicit drugs and the signs and symptoms of drug use and influence. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 7 lect, 1 lab. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B70n Fire and Life Safety (0.2 unit)**

Hands-on training for corrections institution staff in fire prevention and suppression. Provides the knowledge and skills necessary for fire and emergency responses. Topics include evacuation management, tactical control measures, use of fire suppression equipment, and use of the SCBA, search and rescue techniques. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 5 lect, 3 lab. **Repeat:** Unlimited. **CCS:**

Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B70o Positive Inmate Staff Relations Through Communication and Ethics (0.2 unit)**

Provides training to corrections staff. Develops practical communication and ethical skills toward a positive inmate staff working relationship in a jail/institutional environment. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 8 lect. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B70p Emergency Procedures (0.2 unit)**

Designed for corrections staff. Provides an overview of various emergencies arising within a correctional facility, including natural disasters, riots, work strikes, escapes. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 8 lect. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B70r Inmate Work Incentive Program (0.2 unit)**

State law mandates that "every inmate shall have a reasonable opportunity to participate in a full-time credit qualifying assignment consistent with institutional security and available resources." This course is designed for the correctional officer who supervises such inmates. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 8 lect. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B70s Women in Corrections (0.2 unit)**

Designed for students who work in corrections. Explores the history of women in corrections and the career developments for women that have evolved in the field of corrections. Other topics include special training needs, problems and restrictions placed on women, and developing a mentoring program for female correctional staff. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 8 lect. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B70t Blood Borne Pathogens, T.B. Awareness, Psychotic Inmates (0.2 unit)**

Primarily designed for students who work in corrections. Learn how to prevent the transmission of blood borne pathogens, identify Tuberculosis awareness factors, recognize and deal with psychotic inmates. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 8 lect. **Repeat:**

Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **CADM B70u Conflict Resolution and Hostage Survival (0.2 unit)**

Designed for students who work in corrections. Covers conflict resolution and develops skills to defuse and de-escalate confrontational situations. Teaches tactics and techniques to avoid being taken hostage, and what to do if taken hostage in a correctional setting. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 8 lect. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **CADM B70v Facility and Inmate Searches (0.2 unit)**

Provides training for corrections staff. Develops and enhances the knowledge and skills of searching both inmates and facilities. Covers searching techniques, clothed and unclothed body searches, and the current trends of introduction of contraband into a facility. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 8 lect. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **CADM B70w Restraint Gear Application (0.2 unit)**

Provides explanation and hands-on practice for the proper application and use of restraint gear. Explains how some gear can be slipped, picked, shimmed or broken. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 8 lect. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **CADM B70x Cell Extraction (0.2 unit)**

Designed for correctional staff. Provides knowledge and skills to perform calculated and emergency cell extractions in a safe manner. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 8 lect. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **CADM B70z Inmate Classification/Disciplinary Process (0.2 unit)**

Provides an introduction to inmate classification process. Describes the basic procedure for assigning an inmate to a particular job based on security level and defines how the disciplinary process is a part of the classification process. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 8

lect. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **CADM B71a Basic Principles of Management (0.4 unit)**

An introduction to “best practices” of two-way communication between administration and line staff to ensure good facility management. Students will develop their leadership and communication skills. The art of discipline and grievances will be explored. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 12 lect 4 lab. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **CADM B71f Drug and Alcohol Awareness for Supervisors (0.2 unit)**

Provides training to law enforcement, corrections and security supervisors (also recommended for educators). Teaches students to identify and determine whether an employee is under the influence of alcohol or drugs. Other topics include how supervisors can solicit help for employees to overcome substance abuse/addiction. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 7 lect 1 lab. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **CADM B71g Advanced Report Writing (0.2 unit)**

Provides written communication training to corrections line staff and first line supervisors. Provides examples and an opportunity to practice report writing. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 4 lect, 4 lab. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **CADM B71h Transportation/Escape Procedures (0.2 unit)**

Intended for peace officers, correctional officers, juvenile institutions staff and probation officers. Introduction to various modes of transportation of adult and juvenile inmates. Includes proper use of restraints and proper searching techniques. Covers risks and techniques to prevent escapes. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 6.5 lect, 1.5 lab. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **CADM B71i Violence in the Workplace (0.2 unit)**

A discussion of fatal and nonfatal violence in the work place to determine the focus needed for prevention. Emphasis will be made on changes to be instituted to help minimize or remove the risk of workplace violence. This course meets the training requirements as set forth by the Corrections Standards

Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 8 lect. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

#### **CADM B71k Rights of Prisoners (0.2 unit)**

An introduction to the rights and privileges that inmates have while they are incarcerated. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 8 lect. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

#### **CADM B71L Progressive Discipline (0.2 unit)**

Intended for people working in corrections. Teaches method of “Progressive Discipline” utilized in a correctional setting to ensure uniform consistency, avoid confusion, follow “due process” requirements and create a positive behavior change among inmates. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 6 lect, 2 lab. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

#### **CADM B71m Stress in the Corrections Environment (0.2 unit)**

Intended for people working in corrections. Identifies stress, how it affects both the physical and mental health of individuals. Topics include identifying symptoms of stress, recognizable physical and psychological reactions to stress, and stress reducers/relaxation techniques. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 7 lect, 1 lab. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

#### **CADM B71n Positive Thinking in Corrections (0.2 unit)**

Intended for people working in corrections. Identifies the premise that a positive attitude in the correctional workplace fosters job satisfaction, builds self-esteem, and reinforces desired performance. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 6 lect, 2 lab. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

#### **CADM B71o Assertiveness Training for Corrections (0.2 unit)**

Trains correctional officers to present themselves as confident, effective communicators and therefore enjoy better inmate control and institutional effectiveness. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 6 lect, 2 lab. **Repeat:**

Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

#### **CADM B71p Employee Post Trauma (0.2 unit)**

Intended for people working in corrections. Covers basic assessment tools, methods of coping, as well as tools and skills to facilitate post traumatic recovery. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 6 lect, 2 lab. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

#### **CADM B71q Liability Issues and Courtroom Demeanor (0.2 unit)**

Intended for people working in corrections. An introduction to the legal liabilities and responsibilities of corrections personnel while at work and expectancies when called to testify in a court of law. Other topics include identification of adverse employees, insufficient training, and negligent supervision of others. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 8 lect. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

#### **CADM B71r Prison Rape Elimination Act (PREA) (0.2 unit)**

Provides the skills necessary to investigate complaints, threats, or signs of sexual assault/rape against inmates. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 8 lect. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

#### **CADM B72 Chemical Agents (0.2 unit)**

Intended for peace officers, correctional officers, juvenile institutions staff and probation officers. Provides the required competencies and certification for the use of chemical agent sprays. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 6 lect, 2 lab. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

#### **CADM B73 Basic Baton Course (0.2 unit)**

Provides students with the practical, safe, legal and technical aspects of the use of the police baton. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 2 lect, 6 lab. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B74 Weaponless Defense and Control Tactics (0.2 unit)**

Provides training to law enforcement, corrections and security officers to perform their daily tasks with less danger to themselves and to increase their ability to control suspects and prisoners in a humane and lawful manner. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 2 lect, 6 lab. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B75 Surviving Edged Weapons (0.2 unit)**

Provides training to law enforcement, corrections staff and security officers. Teaches responses to the mounting threat of “knife culture” offenders. Topics covered include safe positioning, communicating commands to inmates, how to assess an edged weapon assailant, evasive defensive tactics and disarming techniques. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 3 lect, 5 lab. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B76 Basic Firearms Familiarization (0.2 unit)**

Designed to give the first-time shooter hands-on experience as well as knowledge of the operation of a handgun and range safety. Students will engage in the use of firearms which will include handgun familiarization, safety, care, cleaning and storage, firearms range qualification. Special Note: Per penal code section 13511.5, students must obtain written clearance from the California Department of Justice verifying that they are not prohibited from possessing firearms. **Hours:** 4 lect, 4 lab. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B77 Intermediate Firearms Course (0.4 unit)**

Designed to expand upon the skills and knowledge of firearms familiarity and range safety. Students will engage in the use of firearms which will include safe handling, care, cleaning and storage, and firearms range qualification. Special Note: Per penal code section 13511.5, students must obtain written clearance from the California Department of Justice verifying that they are not prohibited from possessing firearms. **Hours:** 8 lect, 8 lab. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B78 Less Lethal/Speciality Impact Weapons (0.2 units)**

Provides training to law enforcement, corrections and security officers in the proper, safe, legal, technical and practical use of less lethal/speciality impact weapons. A demonstration of such weapons and munitions will be conducted. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 4 lect, 4 lab.

**Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CADM B79 Emergency Response Team Training (1.5 units)**

Provides training for newly appointed officers to a Correctional Emergency Response Team (CERT). Covers the duties of a CERT team member including transport of high risk inmates, extracting uncooperative prisoners from their cells, searches, high profile security, barricaded persons, mass arrest and responding to hostage situations. This course meets the training requirements as set forth by the Corrections Standards Authority for counties participating in the Standards and Training for Corrections Program. **Hours:** 24 lect, 56 lab. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**CRIMINAL JUSTICE**

*Credit limitations may apply. For specific information see a counselor or the transfer institution. Visit the criminal justice website at <http://www2.bakersfieldcollege.edu/criminaljus/>*

**CRIM B1 Introduction to Criminal Justice (3 units)**

History and philosophy of justice as it evolved throughout the world; an overview of America’s criminal justice system and its sub-systems; roles and role expectations of criminal justice professionals; theories of crime causation, punishment and rehabilitation; ethics, and multicultural awareness and education. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. BC GE D.1; CSU GE D.0.

**CRIM B2 Criminal Law (3 units)**

Historical development, philosophy of law and constitutional provisions; definitions, classification of crimes, and their application to the criminal justice system; legal research, review of case law, methodology and concepts of law as a social force. Explores crimes against persons, property, and the state as a social, religious, and historical ideology. Fulfills educational requirements of C.P.O.S.T. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.

**CRIM B3 Introduction to Evidence (3 units)**

Origin, development, philosophy and constitutional basis of the law of evidence; constitutional and procedural considerations affecting arrest, search and seizure, kinds of degrees of evidence and rules governing admissibility; judicial decisions interpreting individual rights and case studies viewed from a conceptual level. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**CRIM B4 Constitutional Criminal Procedure (3 units)**

Legal processes from pre-arrest, arrest through trial, sentencing and correctional procedures; a review of the history of case and common law; conceptual interpretations of law as reflected

in court decisions; a study of case law methodology and case research as the decisions impact upon the procedures of the justice system. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

### **CRIM B5 Community Relations (3 units)**

The relationship of criminal justice agents and the community; causal and symptomatic aspects of community perceptions; lack of cooperation and trust; study of behavioral causes; strategies to develop and enhance multi-cultural awareness and harmonious relationships. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **Offered:** F. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. BC GE D.1; CSU GE D.0.

### **CRIM B8 Criminal Investigation (3 units)**

Fundamentals of criminal investigation; investigator skill requirements; modus operandi determination; the collection, identification and preservation of physical evidence; crime scene investigation; interviews and interrogations; sources of information; surveillance; field note-taking and report writing; case preparation; and the investigation of specific crimes. **Recommended:** Reading Level 5 or 6 **Hours:** 54 lect. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **CRIM B9 Juvenile Justice System (3 units)**

Techniques of handling juvenile offenders and victims; prevention and repression of delinquency, diagnosis and referral; organization of community resources; juvenile law and juvenile court procedures. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **CRIM B10 Organized Crime (3 units)**

Interrelations of organized crime to the community; impact of covert criminal activities upon the social structure; symptoms of organized crime activity, i.e., narcotics and white collar crime; political influences in the legal system; and management of crime control units. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **CRIM B12 Forensic and Scientific Aspects of Evidence (3 units)**

The examination and evaluation of evidence using scientific principles and procedures for use in a legal setting including forensic pathology (autopsy), entomology, anthropology, trace evidence (hair and fiber), fingerprints, serology, ballistics, and DNA. Emphasis on the importance of forensic evidence and science to exonerate the innocent as well as to convict the guilty. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only. BC GE D.2

### **CRIM B21 Introduction to Correctional Administration (3 units)**

A survey of the total 'correctional cycle' and the relationships of its components. Included are: historical, theoretical and philosophical explanations of criminal behavior; statistics and research findings; employment opportunities; employment requirements. Fulfills educational requirements of C.P.O.S.T. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

### **CRIM B22 Institutional Supervision and Treatment of the Offender (3 units)**

A survey of the basic knowledge and skills required of corrections personnel including treatment and supervision of offenders: programs, procedures, legal issues, and research in the correctional setting. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

### **CRIM B23 Fundamentals of Interviewing and Counseling (3 units)**

A survey of the basic theories and techniques employed in interviewing and counseling by the correctional worker; traces the development of a meaningful relationship between client and caseworker; explores the various types of counseling employed with a correctional relationship, including group counseling. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

### **CRIM B24 Probation, Parole & Community Corrections (3 units)**

Theory and techniques of probation/parole supervision, including historical development with emphasis on recent programs, research, and development in the field. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

### **CRIM B50 Criminal Justice Report Writing (3 units)**

Emphasizes the practical aspects of gathering, organizing, and preparing written reports for correctional activities on local, state and federal levels. Covers techniques of communicating facts, information, and ideas effectively in a simple, clear and logical manner for various types of criminal justice system reports, letters, memos. Fulfills educational requirements of C.P.O.S.T. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **CRIM B55 Special Topics in Criminal Justice (1-3 units)**

Contemporary issues and controversies associated with crime and the criminal justice system are among the special topics to be explored. **Hours:** 18-54 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**CRIM B60 Legal Aspects of Corrections (3 units)**

A survey of legal issues in the corrections environment, the civil rights of prisoners and responsibilities and liabilities of corrections officials. The historical framework, concepts and precedents that guide correctional practice. Fulfills educational requirements of C.P.O.S.T. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**CROP SCIENCE**

*See Agriculture*

**DANCE**

*Credit limitations may apply. For specific information see a counselor or the transfer institution. UC campuses give a maximum of four semester units of credit for physical education activity courses.*

**DANC B6bLb Beginning Ballet (1 unit)**

Coeducational beginning ballet course, includes proper warm-up exercise, technical skills and terminology. **Hours:** 54 participation. **Repeat:** 3. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. **Note:** Same as PHED B6bLb; BC GE E; CSU GE C.1.

**DANC B6jd Jazz Dance (1 unit)**

Fundamental jazz dance techniques and fundamentals and terminology of ballet as they relate to jazz dance including warm-up exercises for the preparation of the human body as an instrument for dance. Different styles and rhythms of jazz dance and music for jazz dance will be introduced. **Hours:** 36 participation. **Repeat:** 3. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. **Note:** Same as PHED B6jd. BC GE E; CSU GE C.1.

**DANC B6md Modern Dance (1 unit)**

Modern dance as a lifelong physiological, psychological and social activity. A coeducational course in which the student will learn warm-ups, techniques, experience with movement improvisation and develop a knowledge of the elements of dance composition. **Hours:** 36 participation. **Repeat:** 3. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. **Note:** Same as PHED B6md. BC GE E; CSU GE C.1.

**EARTH SCIENCE****ERSC B10 Introduction to Earth Science (3 units)**

Introduction to the fundamentals of Earth Science, including the solid Earth, atmosphere and hydrosphere, and the solar system. Studies interactions between Earth's systems including the rock cycle, weathering, the hydrologic cycle and climate. **Prerequisite:** Reading level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE B.1; CSU GE B.1; IGETC 5.A.

**ERSC B10L Earth Science Laboratory (1 unit)**

Exercises designed around lecture and text topics from Earth Science 10. Lab work will include the identification of rocks

and minerals, the rock cycle, weather systems and the effect of weather on landforms, reading and interpreting topographic maps, ocean systems and the solar system. **Prerequisite:** ERSC B10 (may be taken concurrently). **Hours:** 54 lab. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE B.1; CSU GE B.3; IGETC 5.A.

**ECONOMICS****ECON B1 Principles of Economics-Micro (3 units)**

Principles of economic analysis and decision making from the viewpoint of the individual consumer, worker, and firm. Emphasis on the price system allocation of resources and income, supply and demand analysis, the structure of American industry, and applications to current economic policy and problems. **Recommended:** Eligibility for ENGL B50, Reading Level 5 or 6, MATH BA or one year of high school algebra. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE D.2; CSU GE D.2; IGETC 4.

**ECON B2 Principles of Economics-Macro (3 units)**

Principles of economic analysis and decision making from the viewpoint of the society. Emphasis on national income analysis, unemployment, inflation, economic growth, fiscal and monetary policies, international trade, and applications to current economic policy and problems. **Recommended:** Eligibility for ENGL B50, Reading Level 5 or 6, MATH BA or one year of high school algebra. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE D.2; CSU GE D.2; IGETC 4.

**EDUCATION****EDUC B24 Early Field Experience for Elementary Teachers (2.5 units)**

Introduction to the elementary classroom. Provides an opportunity of observation and participation in an elementary classroom setting to explore teaching as a profession. Satisfies the 0.5 unit educational planning requirement for graduation from Bakersfield College. **Recommended:** English Level 5, Reading Level 5 or 6. **Hours:** 36 lect/disc, 36 hours arranged. Field trip required. **Offered:** F, S. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges.

**EDUC B77 Concepts and Tools for Online Learning (3 units)**

This course introduces online instructors to basic learning theory and the technological tools for use in the online teaching environment, including tools and principles of web development, web based and online communication tools, and other tools for online teaching. **Hours:** 36 lect, 54 lab. **Repeat:** 3. **CCS:** Occupational Education. **Not Transferable:** Not Degree Applicable.

**EDUC B78 Designing Effective Online Learning (3 units)**

This course guides online instructors through the development of an effective online course, including the development of

learning activities and assessments. Accessibility and usability of online course environments will also be covered via hands-on projects. **Hours:** 36 lect, 54 lab. **Repeat:** 3. **CCS:** Occupational Education. **Not Transferable:** Not Degree Applicable.

### EDUC B79 Managing the Online Learning Experience (3 units)

This course covers the major issues in teaching an online course, including virtual classroom management techniques, dealing with problem students, enrollment issues and communication protocols. **Hours:** 36 lect, 54 lab. **Repeat:** 3. **CCS:** Occupational Education. **Not Transferable:** Not Degree Applicable.

## ELECTRONICS TECHNOLOGY

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

### ELET B1 Basic Electronics (DC and AC) (4 units)

Introduction to electricity and electronics including basic components, electronic circuit calculations, basic electronic test equipment use, electrical measurement, relays and ladder diagrams, alternating current (AC) circuits, and electronic schematic diagrams. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 54 lab. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### ELET B4 Computer Integrated Manufacturing (3 units)

Introduction to industrial automation technologies and the procedures utilized when troubleshooting automated control systems. Topics include programmable logic controllers (PLC), machine control, industrial robots, barcode readers, material handling systems, and Ethernet communications. **Recommended:** Reading Level 5 or 6. **Prerequisite:** ELET B5. **Hours:** 45 lect, 27 lab. **Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. **Note:** Elective credit only. Not open to students who have completed MFGT B4 or MFGT B50.

### ELET B5 Programmable Logic Controllers (3 units)

The function and application of programmable logic controllers. Students will become familiar with the programming of Allen Bradley SLC-500 series controllers with RSLogix software. Topics covered include bit-level input and output instructions, timers, counters, latches, documentation, and troubleshooting. **Recommended:** Reading Level 5 or 6. **Hours:** 45 lect, 27 lab. **Offered:** F, S. **Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. **Note:** Elective credit only. Not open to students who have taken the equivalent course, MFGT B5.

### ELET B6 Analog and Digital Electronics (4 units)

Applications of analog and digital electronic circuits and systems. Content includes: semiconductor components, analog circuits (power supplies, amplifiers, and oscillators), digital electronic circuits (logic gates, sequential logic circuits), digital signal processing (A/D and D/A conversion). Equivalent

to ELET B9 plus ELET B12. **Prerequisite:** ELET B1. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 54 lab. **Offered:** F, S. **Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: elective credit only. Not open to students who have taken both ELET B9 and ELET B12.

### ELET B55a Electric Motors - Controls (4 units)

Basic principles, applications, and configuration of direct current and alternating current motors and generators, motor starters, basic motor control circuitry and applications, and an introduction into variable frequency motor drives (VFD's). **Prerequisite:** ELET B1. **Recommended:** Reading level 5 or 6. **Hours:** 54 lect, 54 lab. **Repeat:** 1. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### ELET B56 Instrumentation and Process Control (3 units)

Basic principles of process instrumentation and control. Topics include level, pressure, flow, and level measurement, final control elements, piping and instrument diagrams and tags, PID controller programming, and basic control algorithms. **Prerequisite:** ELET B1. **Recommended:** Reading Level 5 or 6. **Hours:** 45 lect, 27 lab. **Repeat:** 1. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### ELET B61 Telecommunications (3 units)

Elements of residential and commercial phone systems, electronic communications "basics," transmission line characteristics, fiber-optic cabling and systems, and other non radio-based communication topics will be covered in this course. **Prerequisite:** ELET B1. **Recommended:** Reading Level 5 or 6. **Hours:** 45 lect, 27 lab. **Offered:** S. **Repeat:** 1. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### ELET B62 Radio Communications (3 units)

Introduction to the basic circuits and systems used for RF communications systems, including microwave and satellite communications, two-way radio systems, AM, FM, NBFM, and SSB modulation, antenna systems, and transmission lines. **Prerequisite:** ELET B6. **Recommended:** Reading Level 5 or 6. **Hours:** 45 lect, 27 lab. **Repeat:** 1. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### ELET B63 Electronic Systems Installation (3 units)

Electronic System Installation covers the design, installation, integration, and certification of residential low-voltage wiring systems, such as: telephone, data communications, video systems, cable and satellite systems, audio systems, home automation, security systems, and other integrated home technologies. Hands-on installation, testing, and certification of these systems will occur during the lab portion of this course. Students will be prepared for residential low-voltage industry certifications. **Prerequisite:** ELET B1 or evaluation by the instructor of student's basic electronic skills. **Recommended:** Reading Level 5 or 6. **Hours:** 45 lect, 27 lab. **Repeat:** 1. **CCS:**

Occupational Education. **Not Transferable:** Associate Degree only.

### ELET B70 Mechanical Systems (3 units)

Introduction to machinery and machining processes, essential elements of mechanical systems, mechanical drives (gears, belts and pulleys, clutches), mechanical hardware, bushings, bearings, lubrication systems, basic properties of materials, hydraulics and pneumatics, preventive maintenance, basic hand and power tools, and basic precision dimensional measurement. **Recommended:** Reading Level 5 or 6. **Hours:** 45 lect, 27 lab. **Repeat:** 1. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

## EMERGENCY MEDICAL TECHNICIAN

### EMTC B50 Emergency Medical Technician-1 (7.5 units)

Foundation skills and assessment techniques to care for an ill or injured person in the pre-hospital setting. Follows state regulations for EMT-1 training and leads to certification at the county level. Required for ambulance personnel and appropriate for many other first care providers such as law enforcement and fire personnel. The student must meet Allied Health Department health requirements to participate in the laboratory section of the course. Any expenses involved in meeting the health requirements are the student's expense. Must be at least 18 years of age by the end of class. Mandatory physical examination/immunizations will be required within two weeks of the beginning of the course and are at the student's expense. Failure to meet these requirements will result in student ineligibility for clinical objectives. **Prerequisite:** Students must have a copy of a current BLS (American Heart Association Health Care Provider) card. **Recommended:** MEDS B60 (3 units). **Hours:** 128 lect plus 24 ER/ambulance experience. **Offered:** F, S. **Repeat:** As necessary for state EMS regulations. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### EMTC B50R Emergency Medical Technician I Recertification Preparation (1 unit)

A review of material in EMTC B50 with updates on EMT issues and new material or skill techniques. An approved refresher course that follows state regulations and leads to a recertification completion certificate. Required to continue practice of pre-hospital emergency care. **Prerequisite:** Current EMT 1 certification or certification that has expired in less than one year. **Hours:** 24 lect/lab, plus 3 hours by arrangement. **Offered:** S. **Repeat:** As necessary for recertification. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

## ENGINEERING

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

### ENGR B17 Introduction to Electric Circuits (3 units)

Principles and techniques of D.C. and A.C. circuit analysis, including Kirchoff's laws, mesh and nodal analysis, Thevenin's

and Norton's theorems, impedance, phasors, frequency response, power calculations, natural and forced responses, analog building blocks, operational amplifiers, and Laplace transforms. **Prerequisites:** PHYS B4b. **Recommended:** MATH B6d (may be taken concurrently). **Hours:** 54 lect. **Offered:** S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

### ENGR B17L Electric Circuit Laboratory (1 unit)

Experimental verification of the electric circuit laws including Ohm's law, Kirchoff's laws, network theorems, mesh and nodal analysis, Thevenin and Norton analysis, OP-amp circuits, sinusoidal RC, RL, RLC circuits, phasors, ideal transformer. Use of electrical instruments and development of laboratory techniques. **Prerequisite:** ENGR B17 (may be taken concurrently). **Recommended:** Reading Level 5 or 6. **Hours:** 54 lab. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges.

### ENGR B19C/C++ Computer Programming for Science, Engineering and Technology (3-3 units)

Methods used in the solution of science and engineering problems on digital computers. Programming of algorithms for solutions of numerical problems using a higher level language. ENGR B19C/C++ primarily uses the C programming language with input/output and object-oriented programming features of the C++ programming language. **Prerequisite:** MATH B6a (may be taken concurrently). **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F,S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

### ENGR B24 Engineering Graphics and Descriptive Geometry (2 units)

Orthographic projection, auxiliary views, sectioning, threads and fasteners, dimensioning, tolerance, and working drawing. Descriptive geometry used to obtain points, lines, planes, intersections, developments and spatial relationships. Instrument and computer aided drafting systems used as aid to visualization and design. **Prerequisites:** INDR B10, INDR B11 and MATH B1b or higher. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect, 54 lab. **Offered:** S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

### ENGR B36 Engineering Mechanics - Statics (3 units)

Principles of statics and their application to engineering problems, equilibrium of two-dimensional and three-dimensional systems of particles and rigid bodies. Concentrated and distributed force systems, structures, friction, virtual work and moments of inertia. **Prerequisites:** PHYS B4a, MATH B6a. **Hours:** 54 lect. **Offered:** F. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

### ENGR B37 Engineering Mechanics-Dynamics (3 units)

Fundamental principles of motions of particles and rigid bodies and their application to engineering problems. Velocity, acceleration, relative motion, work, energy, impulse, and momentum. Mathematical modeling and analysis of mechanical systems. Vector mathematics will be used as appropriate.

Prerequisites: ENGR B36 and MATH B6c. Hours: 54 lect. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and Private Colleges.

### ENGR B40 Surveying I (3 units)

An introduction to the techniques of calculation and survey instrument use in field measurements. Topics include measurements of distances, angles, and directions; differential leveling; traversing and traverse computations; total station instrument use and field procedure; coordinate geometry and area calculations; topographic surveys/mapping. **Prerequisite:** High school trigonometry or TECM B52 or concurrent enrollment in MATH B1b. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect, 54 lab. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges.

### ENGR B41 Surveying II Construction Surveying (3 units)

Construction surveying methods and computations. Study of the surveying procedures in construction, including volume computations, horizontal curves, compound curves, reverse curves, vertical curves, staking, grading, profiles and cross sections. Instrument experience is emphasized with both use and care of electronic and mechanical surveying equipment. Introduction to global positioning systems and photogrammetry. **Prerequisite:** ENGR B40. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect, 54 lab. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### ENGR B45 Properties of Materials (3 units)

Internal structure of engineering materials. Characteristics of single and multiple phase metals; polymers, ceramics and composite materials. Mechanical, thermal, chemical and electrical behavior of engineering materials. Laboratory investigation of the physical properties of metals, wood, soils, concrete, and polymers. **Prerequisites:** MATH B1b and CHEM B1a and PHYS B4a OR MATH B1b and CHEM B2a and PHYS B2a. **Hours:** 36 lect, 54 lab. **Offered:** F. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges.

### ENGR B47 Introduction to Engineering and Design (3 units)

Introduction to the engineering profession and the engineering design process. Engineering Profession: Survey of engineering disciplines, functions, communications, and ethics. Includes development of a personal educational plan. Satisfies 0.5 educational planning requirement for graduation from Bakersfield College. Engineering Design: Introduction to the design process and some of the computational skills required to solve engineering problems. Students will work in teams to design, manufacture, and test a simple product. Some training in the use of Excel to solve engineering problems. **Recommended:** MATH BD. **Hours:** 36 lect, 54 lab, 1 field trip. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

### ENGR B60 Introduction to Robotics (3 units)

Introduction to the basic concepts and control application of

robotics. The operation of different types of end actuators is covered along with robotic microcontrollers and basic system sensors. Basic programming techniques are covered. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lecture, 54 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

## ENGLISH

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

## ELIGIBILITY FOR COMPOSITION COURSES

Bakersfield College attempts to provide courses for all student abilities so students can be successful and advance toward educational objectives. Academic Development B68, English B60, B50, and B1a are sequential courses designed to develop proficiency in writing. ENSL B70, B60, and B50 for speakers of other languages are parallel to the Academic Development and English courses. Eligibility for each of these courses depends on a student's writing ability. To place students into appropriate composition courses, the Assessment Center administers a combination objective/essay placement test, which students must complete **prior** to taking composition classes. Eligibility for ENSL courses is determined by placement testing in the International Student Center. After being placed, students must pass the course for that level with a minimum grade of "C" before advancing to the next level. **Students must meet eligibility requirements for admission into composition courses.**

Eligibility for specific courses at placement is as follows: students placed at level 6 on the assessment tests are eligible for English B1a; those at level 5 are eligible for English B50; those at level 4 are eligible for English B60; and those at level 3 are eligible for Academic Development B68 (see Academic Development department).

### ENGL B1a Expository Composition (4 units)

Expository writing and reading. Emphasizes the organization and development of expository essays, study of style, application of critical thinking and writing skills, and preparation of a research paper. **Prerequisite:** ENGL B50 or ENSL B50 with a grade of "C" or English Level 6. **Hours:** 72 lect. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE A.2; CSU GE A.2; IGETC 1.A.

### ENGL B1b Introduction to Types of Literature (3 units)

An introductory course in literature, comprising critical analysis of notable works in prose fiction, drama and poetry, with emphasis on evaluating the logical relationship between form and content and on formulating criteria for artistic judgment. Continued instruction in the communication skills of writing, listening and discussing. **Prerequisite:** Eligibility for ENGL B1a. **Hours:** 54 lect. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE A.3, C.2; IGETC 3.B.

**ENGL B2 Advanced Composition and Critical Thinking (5 units)**

An interdisciplinary team-taught course. Expository writing, reading of expository and literary works; study of the most important ideas in great works in disciplines such as philosophy, natural science, literature, and the social and behavioral sciences; survey of methods of critical thinking and advanced composition. **Prerequisite:** ENGL B1a with a minimum grade of “C.” **Hours:** 90 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. CSU GE A.3; IGETC 1.B.

**ENGL B5a Survey of English Literature (3 units)**

A historical survey of English literature, emphasizing critical reading of representative works from *Beowulf* through the eighteenth century. Recommended for students whose major or minor is English and for students who desire to extend their knowledge of the literary tradition. **Prerequisite:** Satisfactory completion of ENGL B50 or ENSL B50 with a minimum grade of “C” or English Level 6. **Recommended:** ENGL B1b. **Hours:** 54 lect. **Offered:** F, S (two out of every three years). **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 3.B.

**ENGL B5b Survey of English Literature (3 units)**

A historical survey of English literature, emphasizing critical reading of representative works from the eighteenth century through the twenty-first century. Recommended for students whose major or minor is English and for students who desire to extend their knowledge of the literary tradition. **Prerequisite:** Satisfactory completion of ENGL B50 or ENSL B50 with a minimum grade of “C” or English Level 6. **Recommended:** ENGL B1b. **Hours:** 54 lect. **Offered:** F, S (two out of every three years). **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 3.B.

**ENGL B10 Introduction to Shakespeare (3 units)**

This course involves the study of the drama and sonnets of William Shakespeare. Historical information regarding Shakespeare and Elizabethan England will be covered in order to increase students’ appreciation of his accomplishments. Discussions and video presentations will highlight the relevance of Shakespeare’s work today. **Prerequisite:** Satisfactory completion of ENGL B50 with a minimum grade of “C” or English Level 6. **Hours:** 54 lect. Field trips may be required. **Offered:** F. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 3.B.

**ENGL B20a Survey of World Literature**

A study of representative works of world literature in historical and cultural contexts, focusing on their aesthetic significance and the enduring human values which unite the different literary traditions. Covers antiquity to approximately 1650. Recommended for English and Comparative Literature majors and as an elective for majors in the humanities, history or education. **Prerequisite:** Satisfactory completion of ENGL B50 with a minimum grade of “C” or English Level 6. **Recommended:** ENGL B1b. **Hours:** 54 lect. **Offered:** F, S

(two out of every three years). **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE C.

**ENGL B21 African-American Literature (3 units)**

Major authors, their works, themes and movements in African-American literature in America from colonial times to the present. **Prerequisite:** Satisfactory completion of ENGL B50 with a minimum grade of “C” or English Level 6. **Hours:** 54 lect. **Offered:** F. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 3.B.

**ENGL B23 Women’s Literature (3 units)**

Exploration of the roles of women as revealed through women’s writing: short stories, novels, poetry, drama, and essays. **Prerequisite:** Satisfactory completion of ENGL B50 with a minimum grade of “C” or English Level 6. **Hours:** 54 lect. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2, D.4; IGETC 3.B.

**ENGL B27 The Bible as Literature (3 units)**

Poetry and prose of the Bible, especially of the Old Testament. Includes lecture, discussion, and dramatic readings. **Prerequisite:** Satisfactory completion of ENGL B50 with a minimum grade of “C” or English Level 6. **Hours:** 54 lect. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 3.B.

**ENGL B28 Classical Mythology (3 units)**

A study of classical myth, saga, and local legend, primarily Greek and Roman. Relates classical myths to historical and modern culture. **Prerequisite:** Eligibility for ENGL B1a. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. CSU GE C.2; IGETC 3.B.

**ENGL B30a Survey of American Literature (3 units)**

A study of the most notable American authors from the colonial period to the American Civil War with emphasis on the intrinsic value of the literature. Recommended as an elective for majors in the humanities, history or education. **Prerequisite:** Satisfactory completion of ENGL B50 with a minimum grade of “C” or English Level 6. **Recommended:** ENGL B1b. **Hours:** 54 lect. **Offered:** F, S (two out of every three years). **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 3.B.

**ENGL B30b Survey of American Literature (3 units)**

A study of the most notable American authors from the American Civil War to the present with emphasis on the intrinsic value of the literature. Recommended as an elective for majors in the humanities, history or education. **Prerequisite:** Satisfactory completion of ENGL B50 with a minimum grade of “C” or English Level 6. **Recommended:** ENGL B1b. **Hours:** 54 lect. **Offered:** F, S (two out of every three years). **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 3.B.

**ENGL B34 Introduction to Library Research (1 unit)**

Lecture and hands-on research class which will develop a basic familiarity with libraries and information resources as a foundation for future research needs. Students will learn about different types of information resources, both in the Library and on the internet, and different search methods. Evaluation of resources, both print and electronic, is emphasized.

Recommended: English Level 6. Hours: 18 lect. Offered: F, S. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. Note: Not open to students who have taken the equivalent course LIBR B34.

**ENGL B35 Children's Literature and Storytelling (3 units)**

Selection, reading, evaluation, and discussion of literature for pre-school, elementary, and intermediate grades, plus a practicum in sharing of that literature through oral presentation. Prerequisite: Satisfactory completion of ENGL B50 with a minimum grade of "C" or English Level 6. Hours: 54 lect/demo and field practice by arrangement. Offered: F, S. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges. BC GE C; CSU GE C.2.

**ENGL B41abcd Introduction to Creative Writing (3-3-3-3 units)**

Creative writing of poetry, short plays and prose forms. Emphasizes creativity and control of language, sound, imagery, and sense in poetry; character, plot, theme, and point of view in fiction and drama. Covers basics of submitting manuscripts to publishers. **Prerequisite:** Satisfactory completion of ENGL B50 with a minimum grade of "C" or English Level 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

**ENGL B50 Introduction to College Composition (4 units)**

Emphasizes the writing of expository and argumentative essays and the comprehension and analysis of readings. Prepares transfer students for English B1a. **Prerequisite:** ENGL B60 or ENSL B60 with a grade of "C" or better or 'CR' or English Level 5. **Hours:** 72 lect. **Offered:** F, S, SS. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable. Note:

**ENGL B60 Basic Writing Skills (4 units)**

Review and application of fundamentals of standard English. Emphasizes sentence, paragraph, and short essay writing. **Prerequisite:** ACDV B68 or ENSL B70 with a minimum grade of "C" or 'CR' or English Level 4. **Hours:** 72 lect. **Offered:** F, S, SS. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

**ENGL B255 Supplemental Writing Lab (0.5 unit)**

Designed for students desiring additional assistance in specific writing assignments. Students will work on writing assignments from all college courses. Offered for Pass/No Pass grading only. **Hours:** 9 individualized instruction and supervised lab. **Repeat:** 3. **Offered:** F, S. **CCS:** Liberal Arts and Sciences. **Not Transferable:** Not degree applicable.

**ENGLISH AS A SECOND LANGUAGE****English As A Second Language (ENSL)**

Bakersfield College offers a complete program of courses for the ENSL student, including English, writing, speech, reading and counseling courses at the intermediate and advanced levels.

A comprehensive testing program has been especially designed to ensure that all foreign students are placed in the courses which will best suit their needs. **All ENSL students are urged to take the Bakersfield College English as a Second Language Placement Test.**

An International Student Counselor is available in the International Student Center to assist with scheduling of courses and to discuss academic as well as personal problems. All international students and other students for whom English is a second language are urged to visit the center and take advantage of the services offered there.

**ENSL B11 Tools for College Survival (2 units)**

Increases students' probability of success in college by helping students obtain skills necessary to reach their educational objective. Provides the opportunity for students to learn and adopt skills proven to promote success in college, including study skills and personal life skills. Also includes graduation requirements as well as admission and transfer requirements. Satisfies the 0.5 unit educational planning requirement for graduation from Bakersfield College. **Recommended:** Reading Level 5 or 6. **Hours:** 40.5 lect. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. Elective credit only.

**ENSL B21 Intermediate Pronunciation and Listening (3 units)**

Advanced pronunciation class for foreign students who are basically fluent in English, with emphasis on dialect or accents. This may include bicultural American students and foreign-born students. **Recommended:** Placement based on Bakersfield College English as a Second Language Placement Test or ENSL B71ab and ENSL B71cd. **Hours:** 54 lect/disc. **Offered:** F. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. Elective credit only.

**ENSL B22 Advanced Academic Communication (3 units)**

Individual prescriptive training in listening and pronunciation, pertaining to stress and intonation in spontaneous and formal speech samples. **Recommended:** ENSL B21. **Hours:** 54 lect/disc. **Offered:** S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. Elective credit only.

**ENSL B31 Advanced Reading and Literature (3 units)**

Reading course for advanced foreign/bilingual students which refines critical reading skills and vocabulary of college-level material in fiction and non-fiction. **Prerequisite:** ENSL B51 with a minimum grade of "C," or placement based on the Bakersfield College English as a Second Language Placement Test. **Hours:** 54 lect/disc. **Offered:** F, S, SS. **CCS:** Liberal Arts

& Sciences. **Transferable:** CSU and private colleges. **Note:** Elective credit only. BC GE C.

### ENSL B50 Introduction to College Composition (4 units)

Composition course for foreign/bilingual students which provides extensive practice in rhetorical modes of composition and persuasion as well as comprehension and analysis of reading. Stresses both organization and in-depth essay development. Prepares students for ENGL B1a. **Prerequisites:** ENSL B60 or ENGL B60 with a minimum grade of “C” or ‘CR,’ or placement based on the Bakersfield College English as a Second Language Placement Test. **Hours:** 72 lect. **Offered:** F, S, SS. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

### ENSL B51 High-Intermediate Reading and Vocabulary (4 units)

Recommended for international and multi-lingual students who need to improve reading comprehension and build vocabulary in English. Emphasis is on identifying main ideas, summarizing, making inferences, and developing vocabulary, using more complex academic reading selections than in ENSL B61. **Prerequisite:** ENSL B61 with a minimum grade of “C,” or placement based on the Bakersfield College English as a Second Language Placement Test. **Hours:** 72 lect/disc. **Offered:** F, S, SS. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

### ENSL B60 Basic Writing Skills (4 units)

Writing course for international/multilingual students at the advanced level of English who require grammar and composition skills necessary to take essay exams, improve personal and professional writing, or prepare for ENSL B50 or ENGL B50. (A minimum grade of “C” in ENSL B60 will satisfy prerequisite for ENSL B50 or ENGL B50.) **Prerequisites:** ENSL B70 or ACDV B68 with a minimum grade of “C” or placement based on the Bakersfield College English as a Second Language Placement Test. **Hours:** 72 lect/disc. **Offered:** F, S, SS. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

### ENSL B61 Basic Reading and Vocabulary (4 units)

Recommended for international and multilingual students who need to improve reading comprehension and build their vocabulary in English. Emphasis is on looking for main ideas, summarizing, making inferences, developing vocabulary, and using academic language. **Prerequisite:** Placement based on the Bakersfield College English as a Second Language Placement Test. **Hours:** 72 lect/disc. **Offered:** F, S, SS. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

### ENSL B61N Basic Reading and Vocabulary (0 units)

Recommended for international and multilingual students who need to improve reading comprehension and build their vocabulary in English. Emphasis is on looking for main ideas, summarizing, making inferences, developing vocabulary, and using academic language. **Prerequisite:** Placement based

on the Bakersfield College English as a Second Language Placement Test. **Hours:** 72 lect/disc. **Repeat:** Unlimited. **Offered:** F, S, SS. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable. Note: Identical to ENSL B61.

### ENSL B70 Grammar and Composition (4 units)

Writing course for foreign/bilingual students at the high-intermediate level of English who require grammar and composition skills necessary to take essay exams, improve personal written communication, or prepare for ENSL B60. **Prerequisite:** ENSL B80 with a minimum grade of “C” or placement based on the Bakersfield College English as a Second Language Placement Test. **Hours:** 72 lect. **Offered:** F, S, SS. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

### ENSL B71ab Basic Listening and Speaking I (4 units)

Guided practice for improvement of pronunciation, rhythm, stress, and intonation patterns and aural comprehension of non-native English speakers. **Recommended:** Placement based on the Bakersfield College English as a Second Language Placement Test. **Hours:** 72 lect/disc. **Repeat:** 1. **Offered:** F, S, SS. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

### ENSL B71AN Basic Listening and Speaking I (0 units)

Guided practice for improvement of pronunciation, rhythm, stress, and intonation patterns and aural comprehension of non-native English speakers. **Recommended:** Placement based on the Bakersfield College English as a Second Language Placement Test. **Hours:** 72 lect/disc. **Repeat:** Unlimited. **Offered:** F, S, SS. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable. Note: Identical to ENSL B71ab.

### ENSL B71cd Basic Listening and Speaking II (4 units)

Improves the pronunciation, intonation, rhythm, and stress patterns of the non-native English speaking person. Aural comprehension in everyday conversational speech and classroom lectures will also be stressed. **Prerequisite:** ENSL B71ab or placement based on the Bakersfield College English as a Second Language Placement Test. **Hours:** 72 lect/disc. **Repeat:** 1. **Offered:** F, S, SS. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

### ENSL B71CN Basic Listening and Speaking II (0 units)

Improves the pronunciation, intonation, rhythm, and stress patterns of the non-native English speaking person. Aural comprehension in everyday conversational speech and classroom lectures will also be stressed. **Prerequisite:** ENSL B71ab, ENSL B71AN or placement based on the Bakersfield College English as a Second Language Placement Test. **Hours:** 72 lect/disc. **Repeat:** Unlimited. **Offered:** F, S, SS. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable. Note: Identical to ENSL B71cd.

**ENSL B80 Preparation for Academic Writing (4 units)**

Development and control of grammar and usage for international and multilingual American students to advance to ENSL B70. Focuses on grammar review, extensive sentence and paragraph writing, and vocabulary development.

**Recommended:** Placement based on the Bakersfield College English as a Second Language Placement Test. **Hours:** 72 lect/disc. **Repeat:** 1. **Offered:** F, S. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

**ENSL B80N Preparation for Academic Writing (0 units)**

Development and control of grammar and usage for international and multilingual American students to advance to ENSL B70. Focuses on grammar review, extensive sentence and paragraph writing, and vocabulary development.

**Recommended:** Placement based on the Bakersfield College English as a Second Language Placement Test. **Hours:** 72 lect/disc. **Repeat:** Unlimited. **Offered:** F, S. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable. Note: Identical to ENSL B80.

**ENSL B300N Field Introductory Level (0 units)**

Beginning literacy level English as a Second Language multi-skill course for students with no previous English instruction, and for those who may be illiterate. Includes listening/speaking, writing, reading, and grammar development. **Hours:** 120 lect/disc. **Repeat:** Unlimited. **CCS:** Precollegiate basic skills. **Not Transferable:** Not degree applicable.

**ENSL B301N Field Level 1 (0 units)**

Beginning level English as a Second Language multi-skill course for students who are literate but have had little or no previous English instruction. Includes listening/speaking, writing, reading, and grammar development. **Recommended:** Qualification by CASAS assessment process or successful completion of ENSL B300N. **Hours:** 120 lect/disc. **Repeat:** As needed. **CCS:** Precollegiate basic skills. **Not Transferable:** Not degree applicable.

**ENSL B302N Field Level 2 (0 units)**

High-beginning level English as a Second Language multi-skill course for students who have some knowledge of English but may have had little formal instruction. Includes listening/speaking, writing, reading, and grammar development.

**Recommended:** Qualification by CASAS assessment process or successful completion of ENSL B301N. **Hours:** 120 lect/disc. **Repeat:** As needed. **CCS:** Precollegiate basic skills. **Not Transferable:** Not degree applicable.

**ENSL B303N Field Level 3 (0 units)**

Intermediate level English as a Second Language multi-skill course for students who have previous English instruction. Includes listening/speaking, writing, grammar review, and vocabulary development. **Recommended:** Qualification by CASAS assessment process or successful completion of ENSL B302N. **Hours:** 120 lect/disc. **Repeat:** As needed. **CCS:** Precollegiate basic skills. **Not Transferable:** Not degree applicable.

**ENSL B304N Field Level 4 (0 units)**

High-intermediate level English as a Second Language multi-skill course for students with previous English instruction.

Focuses on grammar review, listening/speaking, writing, and vocabulary development. **Recommended:** Qualification by CASAS assessment process or successful completion of ENSL B303N. **Hours:** 120 lect/disc. **Repeat:** As needed.

**CCS:** Precollegiate basic skills. **Not Transferable:** Not degree applicable.

**ENVIRONMENTAL HORTICULTURE**

*See Agriculture*

**FIRE TECHNOLOGY**

*Credit limitations may apply. For specific information see a counselor or the transfer institution. Visit the Fire Technology website at <http://www2.bakersfieldcollege.edu/firetech/>*

**FIRE B1 Fire Protection Organization (3 units)**

Career opportunities in fire protection and related fields; philosophy and history of fire protection; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations offering the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics. **Hours:** 54 lect. Field trips required.

**Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

**FIRE B2 Personal Fire Safety and Emergency Action (3 units)**

Basic skills in assessing fire dangers, handling common fire situations in the home and/or industry, basic CPR and standard first aid. **Prerequisite:** FIRE B1. **Hours:** 54 lect/disc. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

**FIRE B3 Fire Command, Strategy, Tactic (3 units)**

Fundamentals of fire department organization, management, and resources, and the use of those resources to control various emergencies. **Prerequisite:** FIRE B1. **Hours:** 54 lect/disc/demo. Field trip required. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

**FIRE B4 Fire Behavior and Combustion (3 units)**

Theory and fundamentals of how and why fires start, spread and are controlled; an in-depth study of fire chemistry and physics, fire characteristics of materials, extinguishing agents, and fire control techniques. **Prerequisite:** FIRE B1. **Hours:** 54 lect/disc/demo. Field trips required. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

**FIRE B5 Fire Prevention Technology (3 units)**

Provides fundamental information regarding the history and philosophy of fire prevention, organization and operation

of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationships of fire prevention systems, fire investigation and fire safety education. Provides skills necessary for California Fire Service Training and Education System, Certified Firefighter I and Fire Inspector I. **Prerequisite:** FIRE B1 . **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

### **FIRE B6 Fire Protection Equipment and Systems (3 units)**

Provides information relating to the features of design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection, and portable fire extinguishers. **Prerequisite:** FIRE B1. **Hours:** 54 lect. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **FIRE B7 Building Construction for Fire Protection (3 units)**

The study of the components of building construction that relate to fire/life safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, preplanning fire operations, and operating at fires/collapse emergencies. The development and evolution of building and fire codes will be studied in relationship to past fires/collapses in residential, commercial, and industrial occupancies. **Prerequisite:** Fire B1. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

### **FIRE B25a Wildland Fire Behavior (3 units)**

Provides the knowledge to understand wildland fire behavior at the supervisory level in the Incident Command System. Conforms to curriculum requirements of the National Wildfire Coordinating Group. Includes but is not limited to the material contained in S-290 Intermediate Fire Behavior. **Hours:** 54 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

### **FIRE B25b Wildland Firefighter Safety and Survival (3 units)**

Study of factors that lead to unsafe working conditions in wildland fire fighting and procedures to limit risk. Emphasis is placed on avoiding situations and conditions which have resulted in fire shelter deployments, injuries, and fatalities. The Ten Standard Fire Orders and the Eighteen Situations that Shout Watch Out are studied in detail. Course meets National Wildfire Coordinating Group curriculum criteria. Prepares students for employment with wildland fire management agencies and municipal fire departments. **Hours:** 54 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

### **FIRE B25c Wildland Fire Operations (3 units)**

Presents the command structure and operational process for ground and air operations in the control of wildland fires.

Fixed wing aircraft and helicopters are discussed. Includes interagency relationships, mobilization, trainee assignments, and the incident assignment kit. Course meets National Wildfire Coordinating Group curriculum criteria. Prepares students for employment with wildland fire management agencies and municipal fire departments. **Hours:** 54 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

### **FIRE B25d Wildland Public Information Officer, Prevention, and Investigation (3 units)**

Presents the information necessary to understand the roles and functions of the Wildland Fire Information Officer, Wildland Fire Prevention Officer, and Wildland Fire Investigation Officer. **Hours:** 54 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

### **FIRE B25e Wildland Fire Logistics, Finance and Planning (3 units)**

Explains the roles, responsibilities, and functions of the planning, logistics, and finance sections that are utilized during the control of wildland fires. Meets National Wildfire Coordinating Group curriculum criteria. Prepares students for employment with wildland fire management agencies and municipal fire departments. **Hours:** 54 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

### **FIRE B25f Wildland Firefighter (4 units)**

Provides basic principles of wildland fire control. Prepares the student for entry level employment on a wildland handtool fire crew. Meets the basic requirements for the U.S. Forest Service firefighter qualification system. Intended for students to pursue a career with a wildland fire suppression agency or for a specialty with a municipal fire control agency. **Hours:** 74 lect, 16 lab. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

### **FIRE B25g Wildland Engine Firefighter (3 units)**

Prepares students to perform the duties of a wildland firefighter assigned to an engine company. Includes hoselays, types of attack with engines, backfiring equipment, hand tools, self contained breathing apparatus, map reading and communications. Includes National Wildfire Coordinating Group curriculum. Prepares students for employment with wildland fire management agencies and municipal fire departments. **Hours:** 54 lect. 26 lab. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

### **Fire B25h Wildland Fire Dispatcher (3 units)**

Provides the skills to perform entry level tasks within an all risk emergency dispatch system. Includes D-105 Entry Level Dispatcher, D-110 Dispatch Recorder, and D-310 Dispatch Supporter. Subjects covered include: communications, logs and filing, maps, resource status, dispatching aircraft, processing weather, first response/initial attack dispatching, support for initial attack, expanded dispatch, demobilization, accident/

incident reporting, public information, resource order and process, forms and associated processes, and intelligence processing. Utilizes National Wildfire Coordinating Group curriculum. Prepares students for employment with wildland fire management agencies and municipal fire departments.

**Hours:** 54 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

#### **Fire B26a Initial Attack Incident Commander Type 4 (ICT4) (S-200) (1 unit)**

Prepares the student to function as an initial attack incident commander at the ICT4 level in the Incident Command System. Includes preparation, mobilization, size up, leading the initial attack, and initial attack strategy. Meets National Wildfire Coordinating Group curriculum criteria. Prepares students for employment with wildland fire management agencies and municipal fire departments. **Hours:** 16 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

#### **FIRE B26d Interagency Incident Business Management (S-260) (1 unit)**

Provides knowledge to perform the tasks of the position in the Incident Command System (ICS) for which basic incident business management is required. Provides policy and direction for incident business management. Intended for students to pursue a career with a wildland fire suppression agency or for a specialty with a municipal fire control agency. **Hours:** 16 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

#### **FIRE B26e Fire Operations in the Wildland/Urban Interface (S-215) (1.5 units)**

Designed to meet the training needs for incident commanders (Type 4), strike team leaders, and company officers confronting wildland fire that threatens life, property, and improvements in the wildland urban interface. Course meets National Wildfire Coordinating Group curriculum criteria. Prepares students for employment with wildland fire management agencies and municipal fire departments. **Hours:** 32 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

#### **FIRE B26g Crew Boss (S-230) (1.5 units)**

Provides the knowledge to perform as a crew boss on a wildfire incident. Meets National Wildfire Coordinating Group curriculum criteria. Prepares students for employment with wildland fire management agencies and municipal fire departments. **Hours:** 32 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

#### **FIRE B26k Field Observer (S-244) (1 unit)**

Prepares the student to perform the duties of a Field Observer within the Incident Command System. Meets National Wildfire Coordinating Group curriculum criteria. Prepares students for employment with wildland fire management agencies and municipal fire departments. **Hours:** 20 lect. **CCS:** Occupational

Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

#### **FIRE B26m Display Processor (S-245) (0.5 unit)**

Prepares the student to perform the duties of the S-245 Display Processor within the Incident Command System. Meets National Wildfire Coordinating Group curriculum criteria. Prepares students for employment with wildland fire management agencies and municipal fire departments. **Hours:** 8 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

#### **FIRE B27a Basic Incident Command System (I-200) (1 unit)**

Provides the basic features of the Incident Command System. Topics include orientation, principles and features, organization, incident fatalities, incident resources, and common responsibilities. Intended for students to pursue a career with a wildland fire suppression agency or for a speciality with a municipal fire control agency. **Hours:** 16 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

#### **FIRE B27b Incident Command System (I-300) (1.5 units)**

Provides description and detail of the organization and operation of the ICS. Covers management of resources, duties of all positions including the Air Operations Organization, and examples of how the essential principles are used in incident and event planning. Meets the curriculum requirements of the National Wildfire Coordinating Group. Applicable to wildland fire management agencies and municipal fire departments. **Hours:** 27 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

#### **FIRE B28b Followership to Leadership (L-280) (0.5 unit)**

Provides the student with leadership skills specific to wildland firefighting. Meets National Wildfire Coordinating Group curriculum criteria. Prepares students for employment with wildland fire management agencies and municipal fire departments. Includes classroom and field exercises. **Hours:** 8 lect, 8 lab. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

#### **FIRE B29 Wildland Fire Chain Saws (S-212) (2 units)**

Prepares students to become wildfire powersaw operators within the National Interagency Management System. Covers safety considerations, techniques of saw operation, maintenance, and repair. Wildland Fire Chain Saws (S-212) is identified training in the National Wildfire Coordinating Group Suppression curriculum. Intended for students to pursue a career with a wildland fire management agency or for a specialty with a municipal fire control agency. **Hours:** 32 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

**FIRE B50a Fire Command 2A-Command Tactics at Major Fires (2 units)**

Concepts and methods for Chief Officers to understand complex fireground operations. Stresses the multiple company response and the efficient use of human and material resources in handling major structural fires. Accredited by the California Fire Service Training and Education System (C.F.S.T.E.S.) for Chief Officer certification. **Prerequisite:** FIRE B51b or FIRE B51c. **Hours:** 40 lect. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**FIRE B50b Fire Command 2B-Scene Management at Major Incidents (2 units)**

Management techniques for Chief Officers to control major fire disasters. Techniques in developing and writing plans for fire disaster control and in managing local disasters. Accredited by the California Fire Service Training and Education System (C.F.S.T.E.S.) for Chief Officer certification. **Prerequisite:** FIRE B50a or equivalent. **Hours:** 40 lect/disc. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**FIRE B50c Fire Command 2C - High Rise Fire Tactics (2 units)**

Command and control techniques used at the scene of an emergency by fire company officers. Emphasizes decision making, the act of commanding, personnel and organization structures and pre-planning for effective command performance particularly related to high-rise building emergencies. Includes a review of the Incident Command System instituted by the State of California Fire Services. **Prerequisite:** FIRE B51b. **Hours:** 27 lect, 13 lab. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**FIRE B50d Fire Command 2D - Management of Large-Scale Disasters (2 units)**

Essential management techniques for Chief Officers needed to control major disasters. Developing and writing plans for disaster control and managing local disasters emphasized. Accredited by the California Fire Service Training and Education System (C.F.S.T.E.S.) for Chief Officer certification. **Prerequisite:** FIRE B50a or equivalent. **Hours:** 40 lect. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**FIRE B50e Fire Command 2E Wildland Fire Tactics (2 units)**

California's wildland fire problem will be examined through wildland fire safety, weather effects, fuels, fire behavior, initial attack methods, using support equipment, including the use of topographic maps, strategy and tactics, and air attack operations. Accredited by the C.F.S.T.E.S. Chief Officer certification requirements. **Prerequisite:** FIRE B50a. **Hours:** 36 lect, 4 lab. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**FIRE B50f Fire Management 2A-Organizational Development and Human Relations (2 units)**

Provides sound management principles in preparation for Chief Officer. Includes internal and external influences; personal behavior of fire fighters; managing human relations through group dynamics; and problem solving techniques. Accredited by the California Fire Service Training and Education System (C.F.S.T.E.S.) for Chief Officer Certification. **Prerequisite:** FIRE B51a. **Hours:** 36 lect, 4 lab. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**FIRE B50g Fire Management 2B - Fire Service Financial Management (1 unit)**

Provides insight into the cyclical nature of budgeting and financial management. Chief officers, company officers, staff officers, or other fire service managers will become familiar with essential elements of financial planning, budget preparation, budget justification, and budget controls. **Hours:** 18 lect, 22 lab. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**FIRE B50i Fire Management 2D - Master Planning (2 units)**

Long-range fire protection planning. Emphasizes program planning, strategic planning, forecasting, systems analysis, systems design, research, networking policy analysis and plans and reports. Accredited by the California Fire Service Training and Education System for Chief Officer certification. **Prerequisite:** FIRE B50f. **Hours:** 36 lect, 4 lab. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**FIRE B50j Fire Management 2E - Staff Assignments and Line Functions (2 units)**

Relationships with legislative bodies, organizational techniques, goal setting, planning-organizing and controlling, production measurement, evaluation of program effectiveness, civilians of public safety services, public safety employees contractual system, development of department programs and municipal fire insurance programs. Accredited by the C.F.S.T.E.S. for Chief Officer certification. **Prerequisite:** FIRE B50f. **Hours:** 40 lect/disc. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**FIRE B51a Fire Management 1A (2 units)**

Planning, operating and controlling the personnel functions necessary to become a company officer. Emphasizes training, counseling, managing the development of a firefighter, participating in departmental grievance procedures, managing discipline, morale, safety standards and diversity in the workplace. **Prerequisite:** FIRE B1 or equivalent. **Hours:** 40 lect/disc. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**FIRE B51b Fire Command 1A (2 units)**

Fundamental information and experience in command and control techniques at emergency locations. Emphasizes

commanding, the authority or right to command, personnel, organization or area under a commander and the performance requirements for Fire Service Officers. **Prerequisite:** FIRE B1 or equivalent. **Hours:** 36 lect/disc. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

#### **FIRE B51c Fire Command 1B (2 units)**

Information and experience in command and control techniques used at the scene of hazardous material incidents. Emphasizes acts of commanding, the authority or right to command, the personnel organization or area under commander and the performance requirements for Fire Service Officers. **Prerequisite:** FIRE B51b. **Hours:** 36 lect. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

#### **FIRE B51d Fire Prevention 1A (2 units)**

Basic skills and knowledge necessary for Fire Prevention Officer 1. Legal responsibilities and fire hazard characteristics of various materials are included. **Prerequisite:** FIRE B5 or equivalent. **Hours:** 36 lect. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

#### **FIRE B51e Fire Prevention 1B (2 units)**

Basic fire prevention information for company officers so they may respond to a variety of fire prevention situations in a professional and effective manner. Meets NFPA 1031 Fire Inspection Professional Qualifications and California State Board of Fire Services Standards for Fire Prevention Officer 1b. **Prerequisite:** FIRE B51d. **Hours:** 36 lect. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

#### **FIRE B51f Fire Investigation 1A (2 units)**

Arson investigators will successfully carry out their responsibilities in arson detection and explosives investigation. Emphasizes essential elements of fire and explosives behaviors, types and use of laboratory services, and investigative responsibilities of an investigator at location of arson and explosives incidents. Meets P.O.S.T. certification requirements. **Prerequisite:** FIRE B62 or equivalent. **Hours:** 40 lect. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

#### **FIRE B51g Fire Instructor 1A (2 units)**

In-service training programs emphasizing occupational analysis, course outlines, concepts of learning, levels of instruction, behavioral objectives, lesson plans, the psychology of learning, evaluation of effectiveness and student teaching demonstrations are included. **Prerequisite:** FIRE B50. **Hours:** 36 lect, 4 lab. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

#### **FIRE B51h Fire Instructor 1B (2 units)**

Continuation of FIRE B51g. Emphasizes instructors' roles and responsibilities, course outline development, lesson plan

review, instructional aid development, fundamentals of testing and measurements, and student teaching demonstrations.

**Prerequisite:** FIRE B51g. **Hours:** 36 lect, 4 lab. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

#### **FIRE B51i Fire Prevention 1C (2 units)**

Special hazards associated with flammable and combustible liquids and gases. Topics include bulk storage and handling, transportation of flammable gases and liquids. Meets NFPA 1031 Fire Inspection Professional Qualifications and California State Board of Fire Services Standards for Fire Prevention Officer 1. **Prerequisites:** FIRE B51d, FIRE B 51e. **Hours:** 36 lect/disc. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

#### **FIRE B51j Fire Investigation 1B (2 units)**

Continuation of FIRE B51f adds topics of discussion including the juvenile fire setter, report writing, evidence collection and preservation procedures. Course meets P.O.S.T. certification requirements. **Prerequisites:** FIRE B51f. **Hours:** 40 lect/disc. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

#### **FIRE B59 Fire Service Hydraulics (2 units)**

Assist fire fighters, pump operators and engineers in meeting the requirements for Fire Apparatus Driver/Operator certification. Content covers characteristics of water, friction loss, engine pressure, multiple lines, unequal layouts, pump and pumpers and field equations. **Recommended:** MATH B50 or equivalent. **Hours:** 36 lect . **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

#### **FIRE B60 Driver/Operator Certification (3 units)**

Knowledge and skills in pump operations for fire engineers. Includes procedures on pumps, pumping principles, practical hydraulics, safe apparatus operation en route and at scenes of emergencies, principles of reading and interpreting gauges, hydrant operations and drafting procedures. **Recommended:** FIRE B62. **Hours:** 64 lect, 64 lab. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

#### **FIRE B61 Fire Fighter Trainee Academy (3 units)**

Basic educational and practical training essential for firefighter trainees. Emphasizes organizational procedures, forcible-entry tools, protective breathing apparatus, emergency medical care, inspection procedures, fire protection equipment and systems; wildland fire control; fire behavior; and petroleum fire procedures. **Recommended:** Reading Level 4. **Hours:** 54 lect, 66 lab. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

#### **FIRE B62 Fire Fighter I Academy (8 units)**

Basic educational and practical training essential for Fire Fighter I. Advanced study of organizational procedures; forcible entry tools; protective breathing apparatus; emergency medical

care; inspection procedures; fire protection equipment and systems; wildland fire control; fire behavior; and petroleum fire procedures. **Recommended:** FIRE B1, B2, B3, B4, B5, B6 or equivalent. **Hours:** 144 lect, 176 lab. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **FIRE B63 Fire Fighter II Academy (6 units)**

Advanced academic and manipulative training essential for the achievement of job tasks specified for Fire Fighter II. Covers inspection and maintenance of equipment, fire protection surveys, fire prevention inspections, reports and plans and fire alarm features. Meets requirements for the California State Board of Fire Services, Fire Fighter II certification. **Recommended:** FIRE B62 or equivalent. **Hours:** 235 lect/lab. Field trips required. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **FIRE B65 Fire Service Staff Development Training (3 units)**

Staff development training that provides students with contemporary fire fighting techniques. Topics include the latest concepts involving: organizational development; fire services appliances; fire chemistry; automatic fire extinguisher and agents; fire prevention and enforcement; arson investigation; public safety; hazardous materials control and enforcement; mutual aid/joint powers agreement; communications; personal health issues; and emergency rescue techniques. **Hours:** 52 lect, 104 lab. **Repeat:** 3. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **FIRE B66 Fire Fighting and Emergency Medical Skills (8 units)**

Programs, workshops, seminars, and hose ladders, tools, salvage, chemistry, extinguisher and agents, fire control, prevention, arson, crowd and traffic control, manual aid, communications, fire and health safety, and emergency rescue techniques. Updates the skills of EMT 1 - non-ambulance certificate holders as prescribed by law. **Hours:** 189 lect/lab. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **FIRE B67 Emergency Telecommunicator (3 units)**

Designed to provide students with a clearer understanding about being a professional telecommunicator and help transfer that knowledge into positive actions that will assist callers and help bring each call to its best conclusion. Emphasizes decision making, the act of dispatching, interacting with various types of public service agencies, personnel, and different organizational structures. **Hours:** 54 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **FIRE B68 Emergency Medical Dispatch (3 units)**

Designed to provide the dispatcher with information, training and experience in providing prearrival instructions over the telephone in medical emergency situations. Emphasizes decision making in a non-visual environment, the act of working in concert with a reporting party to help mitigate

a medical emergency until trained medical personnel arrive on scene. Instructs the student in the authority, personnel, organizational structure and their role in the emergency medical environment. **Hours:** 54 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **FIRE B70a Hazardous Materials for First Responders (0.5 unit)**

Mandated by law or called upon by necessity to assess, plan for, and initiate mitigation of incidents involving hazardous materials. Content covers the extent and nature of today's hazardous materials problem, effects of weather, topography, and environmental conditions on the behavior of hazardous materials and the containment efforts these conditions require. **Recommended:** FIRE B1 or equivalent. **Hours:** 18 lect, 18 lab. **Repeat:** 1. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **FIRE B70b First Responder Operational-Decontamination (0.5 unit)**

Provide members of a decontamination team at a hazardous materials incident with a primary understanding of the processes used in decontamination and the knowledge to perform in a safe and competent manner to limit the spread of contamination. **Hours:** 9 lect/demo. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **FIRE B70c Hazardous Materials Incident Commander/Scene Manager (1 unit)**

Provide students with competencies needed to assume the role of an Incident Commander, as well as leadership skills for any other Command of Staff Incident Command System positions which are necessary during a hazardous materials incident. Content will also accentuate personnel safety and management. **Hours:** 36 lect/demo. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **FIRE B70d Hazardous Materials Tech/Spec 1A: Basic Chemistry (1 unit)**

Technical training in the physical and chemical terminology important to hazardous materials technicians/specialists and prevention officers, ability to determine properties of a chemical compound by name or formula. Includes study of important terms which describe properties, reactions with other materials, and the effects upon human beings, environment, and property. Applies to Hazardous Materials Technician/Specialist certification. **Hours:** 18 lect, 22 lab. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **FIRE B70e Hazardous Materials Tech/Spec 1B: Applied Chemistry (1 unit)**

A review of the basic terminology and theory of chemistry as it relates to hazardous materials incident management. Content includes: hazard and risk management; behavior and effect of toxicant and the major biological systems affected by toxicant; as well as using monitoring equipment to detect hazardous

atmospheres and unknown solids and liquids. Applies to Hazardous Materials Technician/Specialist I certification.

**Hours:** 40 lect. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **FIRE B70f Hazardous Materials Tech/Spec 1C: Incident Considerations (1 unit)**

Content covers hazardous materials data research; meteorological considerations that influence hazardous materials response activities; hazardous materials incidents command concepts associated with response activities; incident specific considerations that influence hazardous materials response activities; and legislative and regulatory policies that impact hazardous materials response activities. Applies to Hazardous Materials Technician/Specialist certification. **Hours:** 40 lect. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **FIRE B70g Hazardous Materials Tech/Spec 1D: Tactical Field Operations (1 unit)**

Information on confinement, including diking, dams and sorbent; awareness on plugging and patching; application of chemical protective clothing; preservation of evidence; and emergency medical considerations at a hazardous materials incident. Applies to Hazardous Materials Technician/Specialist certification. **Hours:** 40 lect. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **FIRE B70h Hazardous Materials Tech/Spec 1E: Special Mitigation Techniques (1 unit)**

Content covers medical monitoring guidelines; use of Level 'A' chemical protective clothing; repair leaks on a rail tank car; procedures to simulate off-loading hydrocarbons from a rolled over DOT MC-306//406 aluminum tank truck; and practice as member of a haz mat team in simulated hazardous materials incidents. Applies to Hazardous Materials Technician/Specialist certification. **Hours:** 40 lect/demo. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **FIRE B70i Hazardous Materials Tech/Spec 1F: Advanced Field Operations (1 unit)**

Practical application of methods and procedures to mitigate leaking containers; transferring hazardous materials between containers; classifying known and unknown chemicals participating as a member of haz mat team in simulated hazardous materials incidents; and exercising safe methods while operating at hazardous materials incidents. Applies to Hazardous Materials Technician/Specialist certification. **Hours:** 40 lect/demo. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **FIRE B71a Seasonal Firefighter Basic Training 1 (2 units)**

This is the same information/course presented to all first year wildland firefighters. All of the federal fire agencies and

many municipal fire departments recognize this course as the foundation to all subsequent fire training. This is "The Basics" it will provide students with an understanding of wildland firefighting principals, tactics, organization, and fireline safety.

**Hours:** 9 lect, 31 lab. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **FIRE B71b Seasonal Firefighter Basic Training 2 (1.5 units)**

Manipulative and technical training in the identification and operation of fire tools and equipment. Includes fire-line construction practices, physical fitness and water-handling equipment. Satisfies one-half of required training standards.

**Hours:** 9 lect, 31 lab. **Repeat:** 2. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **FIRE B71e Wildland Fire Behavior and Control (0.5 unit)**

Basic watershed fire behavior. Environmental factors of fire behavior which start and spread watershed fires, and basic fire suppression methods applicable to breaking the fire triangle are emphasized. Meets National Interagency Incident Management System certification. **Hours:** 9 lect/disc. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **FIRE B72abc Heavy Duty Rescue 1-2-3 (0.5-1 unit)**

Technical knowledge and practical skills necessary to successfully perform heavy duty rescue emergencies. Emphasizes methods and procedures for utilizing heavy duty rescue equipment, maintaining and storing of heavy duty rescue equipment, and recognizing basic types of building construction and their collapse characteristics resulting from various causes. Accredited by the California Fire Service Training and Education System. **Recommended:** FIRE B2, FIRE B72h or equivalent. **Hours:** 72a: 18 lect/lab for 0.5 unit; 72b: 36 lect/lab for 0.5 unit; 72c: 54 lect/lab for 1 unit. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **FIRE B72d Swift Water Rescue (1 unit)**

Basic techniques necessary to perform emergency rescue procedures involving swift water rivers. Emphasizes basic rescue knot practices, handling small rescue boats, emergency care, and controlling special hazards and problems in swift water emergencies. **Hours:** 18 lect, 12 lab. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **FIRE B72e Advanced Swift Water Rescue (1 unit)**

Refinement of skills in manipulating and controlling activities at heavy swiftwater rescue scenes. Includes advanced river crossing techniques, cross river strokes management, swiftwater search techniques, and team organizational requirements. **Recommended:** FIRE B72d. **Hours:** 20 lect/manipulative exercises. Field trips required. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**FIRE B72f Auto Extrication (0.5 unit)**

A systematic approach to vehicle rescue, and the use of mechanical and hand tools used in the extrication process.

**Hours:** 9 lect, 9 lab. Field trips required. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**FIRE B72g Aircraft Fire Protection and Rescue Procedures (1 unit)**

Information, methods and techniques necessary for providing crash fire rescue services at airports. Includes utilizing conventional fire apparatus and specialized crash fire rescue apparatus, crash fire rescue, extinguishing agents, various types of aircraft and operations at crash scenes. **Recommended:** FIRE B62. **Hours:** 18 lect, 18 lab. Field trips required. **Repeat:** 3. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**FIRE B72h Emergency Medical Technician 1 (4 units)**

Designed to certify students as California State Emergency Medical Technicians and gain employment as a Firefighter or ambulance driver or ambulance attendant or law enforcement officer. After successful completion of this course, students will be authorized to take the Kern County EMS, California State Fire Marshal and or the National Registry EMT examinations. Topics discussed include pre-hospital care terminology, cardiovascular emergencies, pre-hospital childbirth, communicable disease, extrication tools and equipment, automatic external defibrillation and an understanding of the emergency medical system. Course content is based on the guidelines and authority of Title 22, Division 9 of the California Code of Regulations, as well as the U.S. Department of Transportation Emergency Medical Technician-Based Standard National Curriculum, National Registry EMT Examinations. Students must be 18 years of age and have a current CPR card (Title 22, Division 9 of the California Code of Regulations). Students are responsible for paying any certification fees. **Recommended:** FIRE B1. **Hours:** 68 lect, 72 lab. Field trips required. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**FIRE B72i Emergency Medical Technician 1 Refresher (1 unit)**

Updates the skills of EMT 1- Non-Ambulance Certificate holders as prescribed by law. Reviews and updates material in FIRE B72h - EMT 1 - Non-Ambulance. **Recommended:** Possession of a valid EMT 1 - NA Certificate which is current in Kern County. **Hours:** 16 lect, 12 lab. **Repeat:** Unlimited. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**FIRE B74 Petroleum Fire Procedures (0.5 unit)**

Practical experiences in various fire fighting procedures involving flammable liquid fire emergencies, at/or near petroleum installations. Includes utilization of safety practices and extinguishment of various types of petroleum product fires. Certified by the California State Fire Service Training and Educational Program. **Recommended:** FIRE B50a or

equivalent. **Hours:** 3 lect, 6 lab manipulative exercises.

**Repeat:** 1. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**FIRE B75 Fire Fighting Techniques (0.5 unit)**

Advanced techniques of fire control involving the utilization of personnel, equipment, and extinguishing agents in emergency situations. **Recommended:** FIRE B62. **Hours:** 9-27 lect/lab. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**FIRE B77 Advanced Structure Fire Training (0.5 unit)**

Latest techniques in structure fire control. Specialized fire fighting techniques used to control residential, commercial and high-rise building fires. **Recommended:** FIRE B62. **Hours:** 9-36 lect/lab. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**FIRE B78 Advanced Officer Training (0.5 unit)**

Contemporary techniques of supervision, concentrating on supervision techniques identified by local fire service agencies. **Recommended:** FIRE B62. **Hours:** 9-36 lect/lab. **Repeat:** 1. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**FIRE B79 Instructor Orientation (0.5 unit)**

Assists fire technology instructors with information needed to properly administer classroom activities. State certification system, administrative procedures, curriculum development and organization, publication format and style, and teaching strategies for accredited regional courses are emphasized. **Recommended:** FIRE B51g, FIRE B51h. **Hours:** 9-24 lect/lab. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**FIRE B81 Orientation to Fire Technology (0.5 unit)**

Assists fire technology instructors with information needed to properly administer classroom activities. Includes information on the certification system, administrative procedures, curriculum development and organization, publication format and style, and teaching strategies for accredited regional courses. **Recommended:** FIRE B51g, FIRE B51h. **Hours:** 9-24 lect/disc. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**FIRE B83 Topics in Incident Command System Part I (0.5 1.5 units)**

Twenty-six professional development workshops and seminars related to specific topics of the Incident Command System. Prepares municipal, county, state, and federal fire personnel to meet certification standards set forth by the National Interagency Incident Management System. **Hours:** 9-72 lect/disc. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**FIRE B83a P-151 Wildfire Origin and Cause Determination (0.5 unit)**

**FIRE B83b S-205 Fire Operations in the Urban Interface (0.5 unit)**

**FIRE B83c S-217 Interagency Helicopter Training Guide (0.5 unit)**

**FIRE B83d I-244 Field Observer/Display Processor (0.5 unit)**

**FIRE B83f S-234 Firing Methods and Procedures (0.5 unit)**

**FIRE B83g I-254 Base/Camp Manager (0.5 unit)**

**FIRE B83h S-271 Helibase Manager (0.5 unit)**

**FIRE B83i S-270 Basic Air Operations (0.5 unit)**

**FIRE B83j S-290 Intermediate Wildland Fire Behavior (0.5 unit)**

**FIRE B83k S-300 Incident Commander, Multiple Resources Extended Attack (0.5 unit)**

**FIRE B83L S-336 Fire Suppression Tactics (0.5 unit)**

**FIRE B83m I-333 Strike Team Leader/Crew (0.5 unit)**

**FIRE B83n I-334 Strike Team Leader/Engine (0.5 unit)**

**FIRE B83o I-335 Strike Team Leader/Dozer (0.5 unit)**

**FIRE B83p I-339 Division/Group Supervisor (0.5 unit)**

**FIRE B83q I-346 Situation Unit Leader (0.5 unit)**

**FIRE B83r I-347 Demobilization Unit Leader (0.5 unit)**

**FIRE B83s I-348 Resources Unit Leader (0.5 unit)**

**FIRE B83t I-354 Facilities Unit Leader (0.5 unit)**

**FIRE B83u I-355 Ground Support Unit Leader (0.5 unit)**

**FIRE B83v I-356 Supply Unit Leader (0.5 unit)**

**FIRE B83w I-357 Food Unit Leader (0.5 unit)**

**FIRE B83x I-358 Communications Unit Leader (1.5 units)**

**FIRE B83y I-365 Time Unit Leader (0.5 unit)**

**FIRE B83z I-368 Procurement Unit Leader (0.5 unit)**

**FIRE B84 Topics in Incident Command System: Part II (0.5 unit)**  
Twenty-two professional development workshops and seminars related to specific topics of the Incident Command System. Prepares personnel from municipal, county, state, and federal fire service agencies in meeting certification standards set forth by the National Interagency Incident Management System.  
**Hours:** 12-40 lect/disc. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

**FIRE B84a I-374 Helicopter Coordinator**

**FIRE B84b I-375 Air Support Supervisor**

**FIRE B84c I-376 Air Tanker Coordinator**

**FIRE B84d I-378 Air Attack Supervisor**

**FIRE B84e I-400 Incident Commander**

**FIRE B84f I-401 Safety Officer**

**FIRE B84g I-403 Information Officer**

**FIRE B84h I-420 Command and General Staff**

**FIRE B84i I-430 Operation Section Chief**

**FIRE B84j I-440 Planning Section Chief**

**FIRE B84k I-450 Logistics Section Chief**  
**FIRE B84L I-460 Finance Section Chief**

**FIRE B84m I-470 Air Operations Branch Director**

**FIRE B84n S-370 Intermediate Air Operations**

**FIRE B84o S-390 Introduction to Wildland Fire Behavior Calculations**

**FIRE B84p S-490 Advanced Wildland Fire Behavior Calculations**

**FIRE B84q PMS-415 Introduction to Wildland Fire Suppression for Rural Fire Departments**

**FIRE B84r ICS 260-CWN (Call When Needed) Helicopter Module Leader**

**FIRE B84t ICS S-213 Dozer Boss**

**FIRE B84u ICS-I 330 Strike Team/Task Force Leader**

**FIRE B84v ICS-5331 Crew Representative**

**FIRE B85 Special Topics (0.5-3 units)**  
Various mandated training topics required by California State

Fire Marshal (CSFM). **Hours:** 9-54 lect. **Repeat:** Unlimited. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

## FOOD SERVICE

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

### FDSV B50 Introduction to the Foodservice Industry (2 units)

An introduction to the foodservice industry including history, trends, organization and job opportunities. Entry level skills to be taught include communication techniques, terminology, work simplification, application of computational skills, safety procedures, time management, equipment identification and operations, knife skills and cutting techniques. Provides career and educational planning. Satisfies the 0.5 counseling requirement for graduation from Bakersfield College.

**Recommended:** Reading Level 5 or 6. **Hours:** 36 lect. Field trips required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### FDSV B51 Food and Nutrition Orientation (0.5 unit)

Provides a basic understanding of professional standards used in food service industry as well as orientation to the kitchen equipment, storage practices and the use of a recipe. Covers skills development for organizational skills, time management and goal setting. Preparations for the construction of student projects and portfolios are included. **Recommended:** Reading level 5 or 6. **Hours:** 9 lect. Field trips may be required. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### FDSV B52 Foodservice Sanitation and Safety (2 units)

Basic principles of sanitation and safety standards set by regulatory agencies. Causes and prevention of food-borne illnesses. Application of food safety production and service, personal hygiene and facilities maintenance procedures. Food safety regulations and inspections including HACCP system are emphasized. Course meets the minimum food safety certification requirements of California legislation effective January 1, 2000. Upon passing the required exam, course Certificate of Completion is awarded from the Educational Foundation of the National Restaurant Association.

**Recommended:** Reading Level 5 or 6. **Hours:** 36 lect/disc. **Repeat:** 2. Field trips may be required. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### FDSV B55a Foodservice Production Theory I (2.5 units)

Basic principles and techniques involved in commercial and non-commercial food production. Emphasizes recipe standardization, equipment and sanitation/safety principles. Cookery principles relating to stocks, sauces, soups, meats, vegetables, salads, potatoes and starches. **Hours:** 45 lect. Field trips may be required. **Repeat:** 2. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### FDSV B55b Foodservice Production Theory II (2.5 units)

Basic principles and techniques involved in commercial and non-commercial food production. Emphasizes nutritional standards, equipment use, and sanitation/safety principles. Cookery principles relating to poultry, fish and shellfish, sandwiches, hors d'oeuvres, breakfast cookery, vegetarian cookery, food presentation and garde manger. **Recommended:** Reading Level 5 or 6. **Hours:** 45 lect. Field trips may be required. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### FDSV B55c Foodservice Production Laboratory I (2 units)

Practical experiences in the preparation of foods typical to a dinner house/ala carte menu in the campus restaurant. Work station rotations in kitchen and dining room with emphasis on professional skill development, work ethics and presentation skills for plate service. Uniforms are required. **Prerequisite:** FDSV B55a or B55b with a grade of "C" or better (may be taken concurrently). **Recommended:** Reading Level 5 or 6. **Hours:** 108 lab. Field trips may be required. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### FDSV B55d Foodservice Production Laboratory II (2 units)

Practical experiences in the preparation of buffets and garde manger in the campus restaurant. Work station rotations in the kitchen and dining room with emphasis on professional skill development, work ethics and presentation skills for buffet service. Uniforms are required. **Prerequisite:** FDSV B55a or B55b with a grade of "C" or better (may be taken concurrently). **Recommended:** Reading Level 5 or 6. **Hours:** 108 lab. Field trips may be required. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### FDSV B55e Advanced Foodservice Practicum (3 units)

Practicum application of acquired knowledge, skills, work ethics, and technology in developing a broader understanding of production, service and management functions in on-campus and off-campus foodservice operations. Uniforms are required. Transportation provided by the student. Practicum sites must be approved by the instructor. **Prerequisite:** FDSV B52, B55a, B55b, B55c and B59. **Recommended:** NUTR B10 and Reading Level 5 or 6. **Hours:** 18 disc/seminar and 108 practicum. Field trips may be required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### FDSV B55f Fundamentals of Baking (2 units)

Advanced baking experience in the production of cakes, basic creams, icings, dessert sauces, doughnuts, crepes, tarts, puff pastry, eclairs, meringues, Petit Fours and specialty cookies. Decorative work and display pieces, product presentation and marketing techniques demonstrated. **Recommended:** Reading Level 5 or 6. **Hours:** 108 lab. Field trips may be required. **Repeat:** 2. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**FDSV B55i Food and Nutrition Internship (1 unit)**

Advanced practicum application of required knowledge, skills, work ethics and technology in developing a broader understanding of the food service industry. Off campus work internship under supervision of a foodservice professional. Practicum sites must be approved by the instructor. This course emphasizes integrating theory with practical foodservice applications. Participation criteria may vary among the participating foodservice professional organizations. Uniform is required. Transportation provided by the student. **Prerequisite:** FDSV B52, B55a, B55b, B55c, B55d, B59. **Recommended:** NUTR B10, Reading Level 5 or 6. **Hours:** 18 disc/semester and 60 unpaid or 75 paid practicum. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**FDSV B56 Special Project in Foods and Nutrition (1 unit. Limit 2 units)**

Research and project development in special interest areas relating to the food service industry. Topics must extend study beyond the current curriculum and require departmental approval. A minimum of 18 hours for outside-of-class assignments is required. **Prerequisite:** Completion of the first-year curriculum of the foods and nutrition program with a grade of "B." **Recommended:** Reading Level 5 or 6 and recommendation by faculty member. **Hours:** 18 seminar. **Repeat:** 1, not to exceed 2 units. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**FDSV B59 Food Service Production Management (3 units)**

Emphasizes basic knowledge of the first-line hospitality supervisor's roles and responsibilities. Principles of good people management are presented in how they apply to the job. Food purchasing activities for food service operations and product information from a management's perspective are discussed in relation to supervisory roles. Basic principles of cost control are discussed along with applications of basic accounting procedures to cost controls and profitability. **Prerequisite:** FDSV B50, FDSV B52, and FDSV B55a or FDSV B55b or all may be taken concurrently. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips may be required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**FDSV B60 Cost Control for Foodservice Managers (3 units)**

Basic principles of cost control for foodservice managers. Application of basic accounting procedures to cost control. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect/disc. Field trips may be required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**FDSV B64a Dietetic Service Supervisor Practicum (2 units)**

Roles and responsibilities of the Dietetic Service Supervisor in health care and community foodservice operations. Application of standards, principles and techniques of basic nutrition,

modified diets, nutrition education, data gathering and patient/staff communications. Course provides 120 hours directed unpaid clinical work experience in an approved health care facility. (50 hours may be in a facility in which the student is employed). **Prerequisite:** NUTR B10 and NUTR B50. **Recommended:** Reading Level 5 or 6. **Hours:** 120 directed field work experience. Field trips may be required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**FDSV B71 Servsafe Certification (0.5 unit)**

Basic principles and procedures of food safety training including prevention of food-related illnesses and the development and implementation of food safety systems in food facilities. Course is designed for managers and employees to meet/renew the minimum food safety certification requirements of California legislation effective January 1, 2000. A Certificate of Sanitation is awarded from the Educational Foundation of the National Restaurant Association upon passing the required exam. **Recommended:** Reading Level 5 or 6. **Hours:** 9 lect/disc. **Repeat:** Unlimited. As needed for mandated training. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable. **Note:** Course does not satisfy FDSV B52 requirement for certificate/degree Foods/Nutrition Program options.

**FORESTRY**

*See Agriculture*

**FRENCH****FREN B1 Elementary French (5 units)**

Introduction to French language and culture by means of a program that combines video, audio and print media into an integrated method of 'planned immersion.' Emphasis is on communication in the language with special attention given to listening comprehension and pronunciation. Requires practice with audiotape program outside of regular class time. **Recommended:** Reading Level 5 or 6. **Hours:** 90 lect. **Offered:** F. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 6.

**FREN B2 Elementary French (4 units)**

Continued study of French language and culture using the 'planned immersion' approach begun in FREN B1. Listening comprehension and pronunciation continue to be emphasized, along with the development of writing skills. Requires practice with audiotape program outside of regular class time. **Prerequisite:** FREN B1 or two years of high school French. **Hours:** 72 lect. **Offered:** S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 3.B, 6.

**FREN B3 Intermediate French (4 units)**

Reading selections present modern French writers and aspects of French culture. Continues the multi-media program begun in FREN B1 and FREN B2 with increased emphasis on reading and writing. Requires practice with audiotape program outside of class. **Prerequisite:** FREN B2, three years of high school

French or evaluation by instructor of student's French skills.

**Hours:** 72 lect. **Offered:** F. **CCS:** Liberal Arts & Sciences.

**Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 3.B, 6.

### FREN B4 Intermediate French (4 units)

Grammar review and presentation of some of the more complex structures. Emphasis is on reading and writing along with oral communication. Requires practice with audiotape program outside of class. Completes the multi-media program for college French. **Prerequisite:** FREN B3 or four years of high school French or evaluation by instructor of student's French skills. **Hours:** 72 lect. **Offered:** S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 3B, 6.

## GEOGRAPHY

### GEOG B1 Physical Elements of Geography (3 units)

A study of the basic elements of physical geography and the world as a system. Important elements include the atmosphere, weather and climate, geomorphology, and Earth's structure. The main goal of the course is to provide students with a greater understanding and appreciation for their physical environment, with special attention given to terrestrial relationships.

**Recommended:** Reading Level 5 or 6. **Hours:** 54 lect.

**Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE B.1; CSU GE B.1; IGETC 5.A.

### GEOG B1L Physical Geography Laboratory (1 unit)

Designed to demonstrate how material presented in GEOG B1 can be applied in a working environment. The assignments are designed to help students understand and apply the concepts learned in the lecture to real world problems. Exercises include using an atlas, coordinate systems, earth-sun relationships, weather and climate analysis, and topographic map interpretation. **Prerequisite:** GEOG B1 (may be taken concurrently). **Recommended:** Reading Level 5 or 6.

**Hours:** 54 lab **Offered:** F, S. **CCS:** Liberal Arts & Sciences.

**Transferable:** UC, CSU and private colleges. BC GE B.1; CSU GE B.1, B.3; IGETC 5.A.

### GEOG B2 Human Geography (3 units)

Human Geography is designed to demonstrate how people interact with their environment. Special emphasis will be placed on concepts such as population, movement, cultures, and civilizations. Economic factors affecting people's lives and religion will also be emphasized. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE B.1; CSU GE D.5; IGETC 4.

### GEOG B3 Introduction to Weather and Climate (3 units)

Introduction to Weather and Climate focuses on changes in weather and climate patterns throughout the world. Special emphasis will be given to atmospheric phenomena such as El

Nino, hurricanes, tornadoes, and weather mapping. In addition, atmospheric forces such as the pressure gradient and coriolis force will be discussed in detail. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts and Sciences.

**Transferable:** UC, CSU and private colleges. BC GE B.1, CSU B.1, IGETC 5A.

## GEOLOGY

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

### GEOL B10 Introduction to Geology (3 units)

An introduction to the principles of geology with emphasis on the structure and origin of the earth, its present and past landscapes and the processes at work changing its surface. Students requiring laboratory experience should enroll in GEOL B10L concurrently with GEOL B10. **Prerequisite:** Reading Level 5 or 6. **Hours:** 54 lect. One Saturday field trip or equivalent required. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. **Note:** Not open to students who have taken GEOL B1a. BC GE B.1; CSU GE B.1; IGETC 5.A.

### GEOL B10L Geology Laboratory (1 unit)

Exercises planned to accompany the lectures of GEOL B10. Identification of rocks and minerals, topographic and geologic map exercises demonstrating the work of water, wind, ice and gravity and effects of volcanism and earthquakes. **Prerequisite:** Completion of GEOL B10 or concurrent enrollment. **Hours:** 54 lab. Field trip required. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE B.1; CSU GE B.1, B.3; IGETC 5.A.

### GEOL B11 Historical Geology (3 units)

An introduction to the formation and development through time of the solid Earth, atmosphere and biosphere. Covers past movements and locations of the continents and interpretation of past environments as recorded in rock and fossil records, including the dinosaurs. Students requiring laboratory experience should enroll in GEOL B11L concurrently with GEOL B11. **Prerequisite:** Reading Level 5 or 6. **Hours:** 54 lect. One Saturday field trip or equivalent required. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. BC GE B.1, CSU B.1, IGETC 5A.

### GEOL B11L Historical Geology Laboratory (1 unit)

Exercises planned to accompany the lectures of GEOL B11. Identification and description of sedimentary rocks and fossils. Stratigraphic section, relative dating, and geologic map exercises. Introduction to classification using cladistics. **Prerequisite:** GEOL B11 (may be taken concurrently). **Hours:** 54 lab. Field trip required. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. BC GE B.1, CSU B.3, IGETC 5A.

### GEOL B12 Geology of California (3 units)

An elementary course dealing with the geologic history, structure, topography and mineral resources of California and

adjoining areas. **Prerequisites:** GEOL B1a or GEOL B10 or ERSC B10, Reading Level 5 or 6. **Hours:** 54 lect. A Saturday field trip or equivalent may also be required. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

### GEOL B21 Topics in Geology (1-3 units)

An introductory study of the various geological processes that shape the Earth. For each class offering students will focus on one particular area of geology, such as structures and earthquakes, rocks and minerals, geology of Sequoia National Park, geology of Joshua Tree National Park, geology of Death Valley, geology of Yosemite National Park, or other similar subjects. Students will learn about the processes and forces that created these areas and be able to apply their knowledge and understanding to other geological formations around the world. **Recommended:** Reading level 5 or 6. **Hours:** 18 per unit. Field trips required. **Repeat:** 3. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges.

### GEOL B35a Rocks and Minerals (1 unit)

A study of rocks and minerals. Students will learn to identify the major rock-forming minerals and to recognize their relationships as components of the various classes of rocks. From the identification of rocks, recognition of the environmental conditions of deposition will follow. Field work will allow the examination of field relationships of various rocks and the beginning of a collection of rock and mineral specimens. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect/lab. Field trip required. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. **Note:** elective credit only.

### GEOL B35b Geology of Kern County (1 unit)

A study of the geologic history and landforms of Kern County, and the geologic forces and processes that created them. As part of this course, students will learn about many of the different rocks and minerals of Kern County, tectonic activity and mountain building, volcanic activity, earthquakes and weathering. From materials presented, students will be able to understand the geologic forces that shaped Kern County. A field trip is required that will permit the examination and recognition of different geological environments. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect/lab. Field trip required. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. **Note:** elective credit only.

## GERMAN

### GERM B1ab Elementary German (5 units)

B1a-B1b (2.5-2.5) equivalent to B1ab. This course caters to those with no prior knowledge of German. The course is based on the communicative approach which provides the student with elementary communication experience, vocabulary, and grammar structure based on the dialogues and the listening and reading exercises in the textbook. This course is designed to develop understanding, speaking, reading, and writing components of current German. Requires practice with audiotape program outside of class.

**Prerequisite:** B1b: GERM B1a. **Recommended:** Reading Level 5 or 6. **Hours:** 90 lect. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 6.

### GERM B2 Elementary German (5 units)

German language and culture with continued emphasis on pronunciation, conversation, listening comprehension and writing skills. Requires practice with audio tapes outside of regular class time. **Prerequisite:** GERM B1ab or two years of high school German. **Recommended:** Reading Level 5 or 6. **Hours:** 90 lect. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 3.B, 6.

## GERONTOLOGY

### GERO B30 Health and Wellness in Aging (3 units)

Health and wellness are important variables in determining the length and quality of our later years. This course includes consumer level information regarding physiology, acute and chronic illness, medications, physical activity, nutrition, sexuality, pros and cons of health care delivery systems, death and dying, prevention, health promotion and alternative therapies. Research interpretation of professional journals and varied news media. Information intended for individuals over 50 and students of biology, dietetics, social work, psychology, sociology, recreation, and allied health professions. **Recommended:** Reading Level 5. Concurrent enrollment in GERO B230. **Hours:** 54 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

### GERO B40 Nutrition In Aging ( 3 units)

Examines the physiological and sociological aspects of aging as they affect nutritional needs. Contents include: theories of aging, understanding natural life process, newly revised nutritional needs of older adults, food habits of ethnic and racial groups, nutritional implications when combined with various drugs, active versus frail adult needs, acute and chronic diseases, awareness of opportunities, challenges and creative approaches for delivering quality food and nutrition services in varied situations such as nutrition centers. **Recommended:** Reading level 5. Concurrent enrollment in NUTR B255 or evaluation by instructor of experience with dietetic calculations. **Hours:** Independent Study. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

### GERO B230 Health and Wellness in Aging: Computer Lab (1 unit)

Provides supervised laboratory time during which students may obtain hands-on-experience getting practice using assessment forms to evaluate the health and wellness status of persons age 50. **Prerequisite:** GERO B30 (may be taken concurrently). **Hours:** 54 lab. Open entry/open exit. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**GERO B255 Nutrition Computer Lab (1 unit)**

Provides supervised laboratory time during which students may obtain hands-on-experience getting practice using a diet analysis software program to compute nutritional assessments.

**Prerequisite:** Concurrent enrollment in NUTR B10 or GERO B40. **Hours:** Independent Study. Open entry/open exit. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students who have taken the equivalent course, NUTR B255.

**HEALTH EDUCATION**

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

**HLED B1 Principles of Health Education (3 units)**

Health and health-related services. Includes emotional health, nutrition, drugs, marriage and family, physical disease, exercise and environmentally related health concerns. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE E; CSU GE E.

**HISTORY**

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

**HIST B1 World History from the Origins of Civilizations to 1500 (3 units)**

Survey of the historical development of different world societies' major economic, intellectual, political, religious, cultural and social ideas and institutions from Paleolithic humanity to the Early Modern Era. **Recommended:** Eligibility for English 1 and Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE D.2, D.3; CSU GE C.2, D.6; IGETC 3.B, 4.F.

**HIST B2 History of the World Since 1500 (3 units)**

An examination of the social, political, economic, intellectual, military and cultural development of the modern world since 1500 to present. A comparative emphasis is placed both on the unique characteristics as well as the similarities among peoples and nations throughout the world. The growth and spread of modern ideologies are examined as is the development of both the interconnections and interdependencies of the modern world and the rivalries and competitions of the modern world. **Recommended:** Eligibility for ENGL B50 and Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE D.2, D.3; CSU GE D.6; IGETC 3.B, 4.

**HIST B3 Modern Global Societies (3 units)**

A comparative global history of the modern world through an examination of the different economic, intellectual, political, religious, cultural and social ideas and institutions of diverse world societies as they adapted to the modern world. Includes critical thinking and evaluation skills development in analysis and interpretation of historical evidence. **Recommended:**

Eligibility for ENGL B50 and Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE D.2, D.3; CSU GE D.6; IGETC 3.B, 4.

**HIST B4a European Civilization (3 units)**

A survey of history of European civilization from its origin to 1650. This course will examine the different economic, intellectual, political, religious, cultural and social ideas and institutions of the different ethnic and national groups of Europe as they developed from its origin to 1650. This course includes critical thinking and evaluation skills development in analysis and interpretation of historical evidence. **Recommended:** Eligibility for ENGL B50, Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE D.2, D.3; CSU GE D.6; IGETC 3.B, 4.

**HIST B4b European Civilization (3 units)**

A survey of history of the early and late modern eras in European history and its influence on other 'westernized' nations. This course will examine the different economic, intellectual, political, religious, cultural and social ideas and institutions of the different ethnic and national groups of Europe as they developed from 1600 to the present. This course includes critical thinking and evaluation skills development in analysis and interpretation of historical evidence. **Recommended:** Eligibility for ENGL B50, Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE D.2, D.3; CSU GE D.6; IGETC 3.B, 4.

**HIST B15 Civilizations of the Middle East (3 units)**

An introduction to the history and culture of the Middle East from the rise of Islam in the 7th century to the present. Includes the study of government, family, social classes, religion, politics, and conflict in the region. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE D.2, D.3; CSU GE C.2., D.6; IGETC 3.B, 4.F.

**HIST B17a History of the United States (3 units)**

Survey of the political, economic and cultural history of the United States from earliest colonial times to 1877. Includes a study of the U.S. Constitution and federal government. Partially satisfies the requirements in U.S. Constitution, American history and institutions. **Recommended:** Eligibility for English 1 and Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE D.2, D.3; CSU GE D.6; IGETC 3.B, 4.

**HIST B17b History of the United States Since 1870 (3 units)**

Survey of the political, economic and cultural history of the United States from Reconstruction to the present. Includes a study of the U.S. Constitution and federal government, local government of California. Partially satisfies the requirements in U.S. Constitution, American history and institutions.

**Recommended:** Eligibility for English 1 and Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE D.2, D.3; CSU GE D.6; IGETC 3.B, 4.

### HIST B18 History of California (3 units)

The social, economic, and political development of California from its pre-European past to its post-industrial present. Examines the historical uniqueness of California's environment, population, institutions, and economy. Emphasis placed on the influence of American political thought and institutions in the historical evolution of California's state and local governments. Partially satisfies the requirements in U.S. Constitution, American history and institutions. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE D.2, D.3; CSU GE C.2, D.6; IGETC 3B, 4.

### HIST B20a African American History of the United States (3 units)

Survey of the political, economic, and cultural history of the United States from earliest colonial times to reconstruction with emphasis on the role and contributions of African Americans. Includes a study of the U.S. Constitution and federal government. Partially satisfies the requirements in U.S. Constitution, American history and Institutions. **Recommended:** Eligibility for ENGL B50 and Reading Level 5 or 6. HIST B20a is not a prerequisite for HIST B20b. **Hours:** 54 lect. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE D.2, D.3; CSU GE D.3, D.6; IGETC 3.B, 4.

### HIST B20b African American History of the United States (3 units)

Survey of the political, economic, and cultural history of the United States from reconstruction to the present with emphasis on the role and contributions of African Americans. Includes a study of the state and local government of California. Satisfies the requirements in U.S. Constitution and American history and institutions. **Recommended:** Eligibility for ENGL B50 and Reading Level 5 or 6. HIST B20a is not a prerequisite for HIST B20b. **Hours:** 54 lect. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE D.3; CSU GE D.3, D.6; IGETC 3.B, 4.

### HIST B25 Introduction to Women in American History (3 units)

Survey of the history of women in America from the pre-colonial period to 1900. Emphasis is on the social, economic, political, and multicultural facets of women's history in the US and includes both the commonalities and diversities of women's roles, the use of gender as an analytic category, and the specific significance of women in the evolution of the major contours of US history with particular attention upon California and the American Southwest. **Recommended:** Eligibility for English 1 and Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE D.2, D.3; CSU GE D.4, D.6; IGETC 3.B, 4.

### HIST B30a Early Chicano History (3 units)

Survey of the history of the Mexican-American borderlands, from Pre-Columbian times until 1848. Includes the social economic, and political evolution of the region with emphasis on the interrelationships between the histories of the United States and Mexico. Partially satisfies the requirements in U.S. Constitution, American history and institutions. **Recommended:** English 1 and Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. **Note:** Not open to students who have taken the equivalent course, CHST B30a. BC GE D.2, D.3; CSU GE D.3, D.6; IGETC 3.B, 4.

### HIST B30b History of Chicanos in the Southwest (3 units)

Survey of the Chicanos and the United States with an emphasis on the development of California and the Southwest from 1848 to the present. Examines significant events in at least 100 years of U.S. history, the relationship of regions within the U.S. area, the relationship with external regions and powers, the role of major ethnic groups, the continuity of American experience and the derivation from other cultures. Also examines the aftermath of the U.S. Mexican War, 1846-1848, the interrelationship of Mexican and U.S. history between 1860 and 1910; the effects of the Mexican Revolution of 1910 on the 20th century experience of Chicanos in the U.S., and the study of the California State Constitution. Partially satisfies the requirements in U.S. Constitution, American history and institutions. **Recommended:** Eligibility for English 1 and Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. **Note:** Not open to students who have taken the equivalent course, CHST B30b. BC GE D.2, D.3; CSU GE D.3, D.6; IGETC 3.B, 4.

### HIST B33 Latin American History (3 units)

Historical survey of the social, economic and political development of Latin America, including the formation of pre-Columbian civilizations through establishment of the Spanish and Portuguese colonial systems to nation building of the modern era. Examines the impact of the United States foreign policy on the development of Latin America. **Recommended:** Eligibility for ENGL B50 and Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. **Note:** Not open to students who have taken the equivalent course, CHST B33. BC GE D.2, D.3; CSU GE D.3, D.6; IGETC 3.B, 4.

### HIST B36 History of Native American Indians (3 units)

Survey of the origins, traditions, lifeway and belief systems of the various Native Americans. Emphasis on the encounter with Anglo American expansion and on the impact of the governmental policies on this indigenous people. Partially satisfies the requirements in U.S. Constitution, American history and institutions. **Recommended:** Eligibility for English 1 and Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. **Note:** Offered only occasionally. BC GE D.2, D.3; CSU GE D.3, D.6; IGETC 3.B, 4.

**HORTICULTURE**

*See Agriculture*

**HUMAN SERVICES**

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

**HMSV B5 Human Services Internship (1-4 units. Limit 8 units)**

Study of human services organizations. Work internship under supervision in a human services field. Emphasizes integrating theory with practical application. Participation criteria may vary among the participating human services agencies. Signature of the instructor or the Program Director is required to register for this class. **Recommended:** Reading Level 5 or 6, English Level 5. **Hours:** 1 unit: 18 hours seminar and 54 hours field work; 2 units: 18 hours seminar and 108 hours field work; 3 units: 36 hours seminar and 162 hours field work; 4 units: 36 hours seminar and 216 hours field work. **Repeat:** 3 or until a maximum of 8 units is reached. **Offered:** F, S, SS. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**HMSV B40 Introduction to Human Services (3 units)**

A survey of helping institutions and social issues concerning human services; identification of target populations for human services applications; historical perspective of human services in the United States; theoretical perspectives of human services; survey of human services occupations; survey of careers in the human services field; development of social policy concerning human services; and an overview of current controversies concerning human services; **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

**INDUSTRIAL DRAWING**

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

**INDR B10 Introduction to Industrial Drawing and Graphics (1 unit)**

Introductory course dealing with conventional drafting methods to obtain graphic solutions, design, modifications and delineations for industrial, architectural and engineering drawings. Emphasizes basic drafting skills. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect, 18 lab. **Offered:** F, S, SS. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**INDR B11 Introduction to Computer Aided Drafting and Design (CAD) (1 unit)**

An introductory course utilizing a computer aided drafting (CAD) system to obtain graphic solutions, design, modifications and delineations for industrial, architectural and engineering drawings. Emphasizes building skills necessary

to function as a CAD operator in industry. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect, 18 lab. **Offered:** F, S, SS. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**INDR B20a Computer Aided Drafting and Design (CAD) (3 units)**

An intensive course utilizing a computer aided design (CAD) system to obtain graphic solutions, design refinements, modifications and delineations in both 2D and 3D for industrial, architectural and engineering drawings. Emphasizes technology skills that are necessary to function as an entry-level CAD operator. **Prerequisite:** INDR B10 and INDR B11 or equivalent experience to be evaluated by the instructor. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 54 lab. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**INDR B20b Computer Aided Drafting and Design (CAD) (3 units)**

A continuation of the sequence utilizing a computer aided design (CAD) system to obtain graphic solutions, design refinements, modifications and delineations in both 2D and 3D for industrial, architectural and engineering drawings. Emphasizes technology skills that are necessary to function as an entry-level CAD operator. **Prerequisite:** INDR B20a. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 54 lab. Field trips required. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

**INDR B40 Parametric Modeling Fundamentals (3 units)**

Basic and advanced parametric modeling techniques to create three-dimensional models of mechanical objects, then use these models to generate two-dimensional drawings (including views, sections, details, and dimensions) as well as assembly drawings (technical illustrations) and animations. **Recommended:** INDR B10 and B11. **Hours:** 36 lect. 72 lab. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

**INDR B50 Process Piping (3 units)**

Develops knowledge of essential techniques of process piping drafting. Serves as a phase of training to become piping drafter. Includes piping plans, isometrics, orthographics, and process flow diagrams. **Prerequisite:** INDR B10. **Hours:** 54 lect, 54 lab. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**INDR B51 Electrical Design (3 units)**

Introduces the student to the drawing and drafting techniques used in the preparation of electrical construction drawings in industry today. Emphasizes concepts of design to the student utilizing various national, state, and local rules and codes (e.g. 1987 National Electrical Code). **Prerequisites:** INDR B10 or two years of high school drafting with a grade of 'B' or ELET B2. **Recommended:** Reading Level 5 or 6, INDR B11. **Hours:** 36 lect, 72 lab. Field trips required. **Offered:** S.

CCS: Occupational Education. **Not Transferable:** Associate Degree only.

### INDR B52 Geographic Information Systems (GIS) (3 units)

Modern Geographic Information Systems. Solving problems in either Land Information Systems, or Facilities Management Systems. Database management will also be emphasized.

**Prerequisite:** INDR B20a. **Hours:** 36 lect, 72 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

## INDUSTRIAL TECHNOLOGY

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

### INDT B5 Architectural Woodworking and Design (1 unit)

Students will complete an architectural woodworking project of their own design including conceptual drawings of the design. Emphasis is on woodworking lab safety. Covers the incorporation of woodworking joinery. **Prerequisite:** ARCH B6 (may be concurrently enrolled). **Hours:** 9 lect, 27 lab.

**CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### INDT B10 Occupational Readiness (3 units)

Course is intended to provide students with job survival skills necessary to be successful in their specific profession. Units of instruction will be divided into the following topics: industrial safety; trade math; job survival and readiness skills; communication and quality control; academic planning and professional leadership. Satisfies the 0.5 unit educational planning requirement for graduation from Bakersfield College.

**Recommended:** Reading Level 5 or 6. **Hours:** 54 lect/disc. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

### INDT B51 Introduction to Industrial Maintenance (6 units)

Introduction to tools, processes, safety requirements, computations, and basic maintenance and service requirements for equipment and situations commonly found in industrial sites. **Hours:** 72 lect, 108 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### INDT B271 Special Problems in Welding (2-3 units. Limit 6 units)

Provides individual students the opportunity to explore various segments of welding such as various welding processes and codes, fabrication techniques, layout, and testing and preparation for certification. Development and implementation of meaningful, self-directed studies in areas where student desires specific technical and related skill development necessary for enrichment or employment. **Prerequisite:** WELD B1a or WELD B53a with a grade of "C" or equivalent experience evaluated by instructor. Completed 'Petition for Individual Study' form. **Recommended:** Reading Level 5 or 6. Enrollment is contingent on available lab space. **Hours:** 36

hours by arrangement for 2 units; 54 hours by arrangement for 3 units. **Repeat:** 1 or until a maximum of 6 units is reached.

**CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### INDT B272 Special Problems in Electronics (2-3 units. Limit 6 units)

Provides individual students the opportunity to explore various segments of electronics. Development and implementation of meaningful, self-directed studies in areas where the student desires specific technical and related skill development necessary for enrichment or employment.

**Prerequisites:** Completion of minimum of 9 units of electronics courses with a grade of "C" or equivalent experience or evaluation by instructor of electronics experience. Completed 'Petition for Individual Study' form. Enrollment is contingent on available lab space. **Hours:** 36 hours by arrangement for 2 units; 54 hours by arrangement for 3 units. **Repeat:** 1 or until a limit of 6 units is reached. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### INDT B273 Special Problems in Machine Tool Metal Working (2-3 units. Limit 6 units)

Provides individual students the opportunity to explore various segments of machine tool metal working. Development and implementation of meaningful, self-directed studies in areas where the student desires specific technical and related skill development necessary for enrichment or employment.

**Prerequisites:** Completion of minimum of 6 units of machine tool courses with a grade of "C" or equivalent experience or evaluation by instructor of machine working. Completed 'Petition for Individual Study' form. **Hours:** 36 hours by arrangement for each unit. **Repeat:** 1 or until a limit of 6 units is reached. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### INDT B274 Special Problems in Wood Working (2-3 units. Limit 6 units)

Course is intended to provide students the ability to, on an independent study basis, the opportunity to explore various segments of the woodworking and cabinetmaking industry. The primary intent of this course is to develop and implement meaningful, self-directed studies in areas where the student desires specific technical and/or skill development.

**Recommended:** Concurrent enrollment in a woodworking technology related course or previous woodworking and/or cabinetmaking experience. **Hours:** 108 to 162 independent study. **Repeat:** 2 or until a limit of 6 units is reached. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### INDT B275 Special Problems in Automotive/Motorcycle (2-3 units. Limit 6 units)

Provides the individual students the opportunity to explore various segments of automotive. Development and implementation of meaningful, self-directed studies in areas

where the student desires specific technical and related skill development necessary for enrichment or employment. Students must completed 'Petition for Individual Study' form. **Recommended:** Basic automotive knowledge. **Hours:** 36 hours by arrangement for 2 units; 54 hours by arrangement for 3 units. **Repeat:** 1 or until a limit of 6 units is reached. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### INDT B277 Special Problems in Construction (1-3 units)

Provides students the opportunity to explore various segments of the construction industry. The primary intent of the course is to develop and implement meaningful self-directed studies in areas where the student desires specific technical and/or skill development. **Recommended:** Concurrent enrollment in a construction technology related course or previous construction experience. **Hours:** 48-144 independent study. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

## JAPANESE

### JAPN B1 Elementary Japanese (5 units)

Introduction to Japanese language and culture. Special emphasis is on speaking and understanding Japanese along with mastering elementary grammar and compositions while learning the characters of Japanese alphabets. Requires practice with audiotape program outside of class. **Recommended:** Reading Level 5 or 6. **Hours:** 90 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 6.

### JAPN B2 Elementary Japanese (5 units)

Continuing of elementary course introducing Japanese language and culture. Special emphasis on speaking and understanding Japanese along with mastering elementary grammar and composition while learning the characters of Japanese alphabets. Requires practice with audiotape program outside of class. **Recommended:** JAPN B1. **Hours:** 90 lect. **Offered:** S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 3.B, 6.

### JAPN B3 Elementary Japanese (5 units)

Provides further knowledge and communication skills in Japanese in all four areas: speaking, listening, reading, and writing. In addition to the polite/distal style, the course further develops oral communication skills in other speech styles such as directed style and honorific style. One hundred new kanji (Chinese characters) are introduced. **Prerequisite:** JAPN B2. **Hours:** 90 lect. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE C.

### JAPN B52a Elementary Conversational Japanese (2 units)

Oral practice of the language. Emphasizes pronunciation, correct usage, and common idiomatic speech. Content designed for students who wish to acquire the basic skills of spoken

Japanese. **Hours:** 54 lect. **Repeat:** 1. **CCS:** Liberal Arts & Sciences. **Not Transferable:** Not degree applicable.

## JOURNALISM

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

### JRNL B1 Media and Society (3 units)

A study and evaluation of mass media and how it shapes societies and cultures. The focus provides the media consumer with a historical and a theoretical perspective on newspapers, magazines, books, the Internet, television, radio, public relations, advertising and motion pictures. Course content discusses media law and ethics, controversial topics as well as topics of current interest. **Recommended:** English Level 5, Reading Level 5 or 6. **Hours:** 54 lect/disc. Field trips required. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. BC GE D.2; CSU GE D.8; IGETC 4.

### JRNL B2 Beginning Reporting (3 units)

Introduction to the process of journalism reporting through the study and practical application of various techniques. Concentration on recognizing story ideas, gathering information from sources, news judgment, ethics, proper style and writing. Emphasizes news, features, sports and opinion writing. Prepares students for possible role on a student newspaper. **Recommended:** English Level 5, Reading Level 5 or 6. **Hours:** 54 lect/disc. Field trips required. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### JRNL B4 Introduction to Public Relations (3 units)

An introduction to public relations in today's society, including history of public relations and study of definitions, processes, and audiences of businesses as well as nonprofit organizations. Includes how to prepare, write and submit news releases to electronic and print media. **Recommended:** JRNL B2, English Level 6, Reading Level 5 or 6. **Hours:** 54 lect/disc. Field trips required. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### JRNL B15 Press Photography (3 units)

Study and application of digital photography as applied to journalism. Covers technical aspects of cameras, use of Photoshop, how to photograph assignments in the field and choosing photographs for print. Entry-level photojournalism course prepares students for enrollment in student newspaper. Digital camera required. **Recommended:** English Level 6, Reading Level 5 or 6. **Hours:** 36 lect/disc, 54 supervised lab. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### JRNL B16 Multimedia Reporting (3 units)

Study and application of photography applied to emerging changes in the journalism landscape, specifically visual and audio communication through new media. Emphasizes the combined use of still cameras, audio recording equipment and

video cameras to produce in-depth, content-rich reporting for journalism Web sites. **Recommended:** JRNL B15, English Level 6, Reading Level 5 or 6. **Hours:** 36 lect, 54 lab. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

#### JRNL B26 Newspaper Production/Editors (4 units)

Designed for editors of the online and print editions of *The Renegade Rip*, BC's award winning student-produced college newspaper, Teaches news content analysis, planning and evaluation using critical-thinking skills, story organization, intensive page design, planning and developing style and design of stories, photography, graphics, and art. Includes numerous discussions of ethics, collaboration with staff, and learning editorial leadership, with editors making all policy and content decisions for student-produced print and online media. **Recommended:** JRNL B2 and concurrent enrollment in JRNL B27a or B27e, Reading Level 5 or 6 and English Level 6. **Hours:** 18 lect, 126 lab. **Repeat:** 3. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

#### JRNL B27a Newspaper Production/Reporters (3 units)

Production practicum for the print and online editions of *The Renegade Rip*, BC's award-winning student-produced newspaper. Offers experience in interviewing, research, news, feature, sports, and opinion reporting, design and production of editorial cartoons, headline writing, copyediting, proof reading, introduction to page design, graphics, and computer use. Students wishing to report stories, create editorial cartoons, or create graphics for the college newspaper should be enrolled. **Recommended:** JRNL B2, English Level 6 and Reading Level 5 or 6. **Hours:** 32 lect, 96 lab. Field trips required. **Repeat:** 3. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

#### JRNL B27e Newspaper Production/Photographers (3 units)

Production practicum for the print and online editions of *The Renegade Rip*, BC's award-winning student-produced college newspaper. This course offers experience in how to take color news, feature, and sports photographs, black and white photo technology, photo editing and sizing photo essay design, photo polls, environmental portraits and photo illustrations. Students wishing to take photos for the college newspaper using digital or film cameras should be enrolled. **Recommended:** JRNL B15, English Level 6, Reading Level 5 or 6. **Hours:** 32 lect, 96 lab. Field trips required. **Repeat:** 3. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

## LIBRARY

#### LIBR B34 Introduction to Library Research (1 unit)

Lecture and hands-on research class which will develop a basic familiarity with libraries and information resources as a foundation for future research needs. Students will learn about different types of information resources, both in the Library

and on the internet, and different search methods. Evaluation of resources, both print and electronic, is emphasized.

**Recommended:** English Level 6. **Hours:** 18 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. Note: Not open to students who have taken the equivalent course ENGL B34.

#### LIBR B55 Information Competency (0 units)

Addresses specific areas of information competency. Assists students in gaining proficiency in all aspects of information competency including research strategies, using reference materials, searching the online catalog, locating journal and newspaper articles, evaluation of print and internet resources, using the internet and legal aspects of information (plagiarism, fair use, and copyright). **Hours:** 60 minutes per meeting. **CCS:** Liberal Arts and Sciences. **Not Transferable:** Not degree applicable.

## MANAGEMENT

*See Business Administration*

## MANUFACTURING/MACHINE TECHNOLOGY

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

#### MFGT B1a Machine Tool Processes (1.5 units)

Basic machine tool technology including the use of precision measuring instruments, drilling machines, saws and lathes. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect, 36 lab. **Repeat:** 2. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. **Note:** Elective credit only.

#### MFGT B1b Machine Tool Processes (1.5 units)

Basic machine tool technology emphasizing the use of lathes and vertical milling machines. **Recommended:** MFGT B1a, Reading Level 5 or 6. **Hours:** 18 lect; 36 lab. **Repeat:** 2. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. **Note:** Elective credit only.

#### MFGT B2 CNC Lathe Programming (3 units)

Set-up, operation, and programming of a computer numerical control lathe. **Recommended:** MFGT B1a or evaluation by instructor of student's machining skills. Reading Level 5 or 6. **Hours:** 54 lect, 18 lab. **Offered:** F. **Repeat:** 2. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

#### MFGT B3 Milling Programming (3 units)

Set-up, operation, and programming of a computer numerical control milling machine. **Recommended:** MFGT B1b or evaluation by instructor of student's machining skills, Reading level 5 or 6. **Hours:** 54 lect, 18 lab. **Offered:** S. **Repeat:** 2. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

**MFGT B43L Machine Shop Essentials for Engineers and Designers Laboratory (1 unit)**

A hands-on project-based overview of machine shop practices, introducing students to the use of machine tools and hand tools to manufacture a product from blueprints. Students will acquire basic metal forming skills through the use of lathes, milling machines, drill presses, and precision measuring tools. **Hours:** 54 lab. **Offered:** Spring, Summer. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**MFGT B52 Industrial Fluid Power (3 units)**

Theory and practical application of hydraulics, pneumatics, and electrical control of fluid power. Designing ladder logic for fluid power circuits and interfacing electrical controls. **Recommended:** MATH B50, Reading Level 5 or 6. **Hours:** 54 lect, 18 lab. **Repeat:** 2. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**MFGT B53 Machine Tool Set-Up (3 units)**

Machine shop practices with an emphasis on safety, benchwork techniques, applied mathematics, set-up techniques used on milling machines, lathes, and drill presses. This class also introduces precision grinding, basic metallurgy and heat treatment. **Recommended:** MFGT B1AB. **Hours:** 36 lect, 54 lab. **Repeat:** 2. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**MARKETING**

*See Business Administration*

**MATHEMATICS**

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

**MATH BA Elementary Algebra (5 units)**

Fundamental concepts and mathematical processes, first degree equations, special products and factoring, fractions and fractional equations, ratios, proportions, radicals, exponents, graphs, simultaneous linear equations, quadratic equations. **Prerequisite:** MATH B50 or equivalent pre-algebra course with a grade of "C" or better or qualifying score on placement assessment. **Recommended:** Reading Level 5 or 6. **Hours:** 90 lect. **Offered:** F, S, SS. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

**MATH BB Geometry (5 units)**

Includes congruence and similarity of triangles, parallel and perpendicular lines, quadrilaterals, polygons, circles, the Pythagorean Theorem, ratio and proportion, area and volume. Deductive reasoning is used extensively with various methods of proof. **Prerequisites:** MATH BA or one year of high school algebra or equivalent with a grade of "C." **Recommended:** Reading Level 5 or 6. **Hours:** 90 lect. **Offered:** S, SS. **CCS:** Liberal Arts & Sciences. **Not Transferable:** Associate Degree only. BC GE B.2.

**MATH BD Intermediate Algebra (5 units)**

Sets and operations, signed numbers, factoring, linear equations, simple and complex fractions, functional notation, simple graphs, exponents and radicals, quadratic equations, the conics, variation, determinants, logarithms, exponential equations, sequences and series and the binomial expansion. **Prerequisite:** MATH BA or one year of high school algebra or equivalent with a grade of "C." **Recommended:** Reading Level 5 or 6. **Hours:** 90 lect. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Not Transferable:** Associate Degree only. BC GE B.2.

**MATH B1a Precalculus I (4 units)**

Preparation for calculus; the algebraic and graphical analysis of polynomial, rational, logarithmic and exponential functions and their applications; systems of linear and nonlinear equations; graphing, inequalities, absolute value, and complex numbers. **Prerequisite:** MATH BD or two years of high school algebra or equivalent with a grade of "C." **Hours:** 72 lect. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE B.2; CSU GE B.4; IGETC 2.

**MATH B1b Precalculus II (4 units)**

Definitions of trigonometric functions, graphs of trigonometric functions, use of trigonometric functions in problem solving, derivation of trigonometric identities, verification of trigonometric identities solution of conditional trigonometric equations, study of inverse trigonometric functions, trigonometric form of complex numbers and DeMoivre's Theorem; analytic geometry, mathematical induction, an introduction to sequences and series. **Prerequisite:** MATH B1a or equivalent. **Hours:** 72 lect. **Offered:** F, S, SS. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE B.2; CSU GE B.4; IGETC 2.

**MATH B2 Basic Functions and Calculus for Business (5 units)**

Modern concepts in mathematics emphasizing applications to business. Functions and the basic concepts of differential calculus with introductions to integral calculus and multivariable calculus. **Prerequisite:** MATH BD or two years of high school algebra or equivalent with a grade of "C." **Hours:** 90 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE B.2; CSU GE B.4; IGETC 2.

**MATH B4a Mathematics for Elementary School Teaching I (5 units)**

Designed for prospective elementary school teachers. Development of real numbers including integers, rational and irrational numbers, computation, prime numbers and factorizations, and problem-solving strategies. **Prerequisite:** MATH BD or equivalent with a grade of "C." **Recommended:** Reading Level 5 or 6. **Hours:** 90 lect. **Offered:** F, S. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE B.2

**MATH B4b Mathematics for Elementary School Teaching II (5 units)**

Designed for prospective elementary school teachers. Counting methods, elementary probability and statistics. Topics in geometry to include polygons, congruence and similarity, measurement, geometric transformations, coordinate geometry, and connections between numbers and geometry with selected applications. Prerequisite: MATH B4a. Hours: 90. Offered: F, S. CCS: Liberal Arts and Sciences. Transferable: UC, CSU and private colleges.

**MATH B6a Analytic Geometry and Calculus I (4 units)**

Elements of analytic geometry, differential calculus and introduction to integration of algebraic functions. Prerequisite: MATH B1b or equivalent with a grade of "C" or better. Hours: 72 lect. Offered: F, S. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. BC GE B.2; CSU GE B.4; IGETC 2.

**MATH B6b Analytic Geometry and Calculus II (4 units)**

Transcendental functions, polar coordinates, sequences, infinite series and methods of integration. Further exposure to techniques and applications of differential and integral calculus. Prerequisite: MATH B6a or equivalent with a grade of "C" or better. Hours: 72 lect. Offered: F, S. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. BC GE B.2; CSU GE B.4; IGETC 2.

**MATH B6c Calculus III (4 units)**

Continuation of Calculus II. Vectors and parametric equations, vector-valued functions, partial differentiation, multiple integrals, vector analysis, including theorems of Green, Gauss and Stokes. Prerequisite: MATH B6b or equivalent with a grade of "C." Hours: 72 lect. Offered: F, S. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. IGETC 2.

**MATH B6d Ordinary Differential Equations (3 units)**

Vector spaces and linear transformations; elementary differential equations; Laplace transforms; series solutions and systems of differential equations; matrices and eigenvalues. Prerequisite: MATH B6c or equivalent with a grade of "C." Hours: 54 lect. Offered: F, S. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. IGETC 2.

**MATH B6e Elementary Linear Algebra (3 units)**

Real and complex number fields, vector spaces, linear transformation, matrices, systems of equations and matrix inversion, determinants, eigenvalues and eigenvectors. Prerequisite: MATH B6c or equivalent with a grade of "C." Hours: 54 lect. Offered: S. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. IGETC 2

**MATH B16 Liberal Arts Mathematics (4 units)**

Major mathematical concepts in the areas of management, science, statistics, social choice, the geometry of size and shape, and mathematics for computer science. Emphasis is on real world applications. Students will learn to think logically

and read technical information critically. Historical vignettes. For liberal arts students. Prerequisite: MATH BD or equivalent with a grade of "C." Recommended: Reading Level 5 or 6. Hours: 90 lect. Offered: F, S, SS. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. BC GE B.2; CSU GE B.4.

**MATH B21 Special Projects in Mathematics (1-2 units. Limit 4 units)**

Individually directed work in mathematics, including advanced topics, research projects, special problems and applications of mathematics to specific subject areas. Interested students should talk with their math instructor for an evaluation of their math skills. Hours: 18 for each unit. Field trip may be required. Repeat: 3. CCS: Liberal Arts & Sciences. Transferable: CSU and private colleges. BC GE B.2.

**MATH B22 Elementary Probability and Statistics (5 units)**

Graphical methods of description of data, finite probability; discrete and continuous random variables; sampling distributions; hypothesis testing for large and small samples, analysis of variance, nonparametric statistics; linear regression and correlation. Prerequisite: MATH BD or equivalent with a grade of "C" or higher. Hours: 90 lect. Offered: F, S, SS. CCS: Liberal Arts & Sciences. Transferable: UC, CSU and private colleges. BC GE B.2; CSU GE B.4; IGETC 2.

**MATH B23 Finite Mathematics (3 units)**

Includes solving equations and inequalities in one variable, relations and functions, matrices, linear inequalities in two variables, linear programming, mathematics of finance including simple and compound interest, annuities, sets and counting, and Venn diagrams. Prerequisite: Math BD with a grade of "C" or better. Hours: 54 lect. Offered: F, S. CCS: Liberal Arts and Sciences. Transferable: UC, CSU and private colleges. BC GE B.2; CSU GE B.4; IGETC 2.

**MATH B24 Early Field Experience in the Elementary School Classroom with an Emphasis in Mathematics (2 units)**

Observation and supervised participation in an elementary school classroom (grades K-8). Provides the prospective elementary school teacher with a frame of reference for further work and study in the teaching profession. Emphasis on learning and teaching mathematics. Students will tutor K-8 students as part of their assignment. Offered on a credit/no-credit basis only. Recommended: Reading Level 5 or 6, English Level 5, MATH BD. Hours: 18 lect, 36 lab. Field trips may be required. CCS: Liberal Arts and Sciences. Transferable: CSU and private colleges.

**MATH B25 Early Field Experience in the Secondary School Classroom with an Emphasis in Mathematics (2 units)**

Observation and supervised participation in a secondary school classroom (grades 7-12). Provides the prospective secondary

school teacher with a frame of reference for further work and study in the teaching profession. Emphasis will be placed on learning and teaching mathematics. Students will tutor mathematics as part of their assignment. Offered on a Pass/No Pass basis only. **Prerequisite:** MATH BD. **Recommended:** Reading Level 5 or 6, English Level 5. **Hours:** 18 lect, 36 lab. Field trips may be required. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges.

### **MATH B50 Modern College Arithmetic and Pre-Algebra (4 units)**

A general review of basic arithmetic including the fundamental operations of addition, subtraction, multiplication and division of whole numbers, fractions and decimals. Emphasis is placed on real life applications, including percents, ratios, proportions, exponents, averages, estimation, graphs and measurement. The introduction to algebra includes operations with signed numbers and solving simple equations. **Prerequisite:** ACDV B78 or equivalent arithmetic course with a grade of "C" or better or qualifying score on placement assessment. **Hours:** 72 lect. **Offered:** F, S, SS. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

### **MATH B255 Math Problem Solving Lab (0.5 unit)**

Designed for Math students desiring additional assistance in specific problem solving areas. Students will work on problems from math courses in which they are concurrently enrolled. **Hours:** 27 hours arranged. Open entry/open exit. Repeat: 3. **CCS:** Liberal Arts and Sciences. **Not Transferable:** Not degree applicable.

## **MECHANIZED AGRICULTURE**

### **MCAG B1 Introduction to Agricultural Mechanics (3 units)**

The application of mechanical skills in the field of agriculture. Primarily shop skills dealing with wood, metal, concrete, electrical and usage of common farm type tools to complete assigned shop projects. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect, 54 lab. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

## **MEDICAL SCIENCE**

### **MEDS B20 Introduction to Health of the Under Served and Linguistic Minority Communities (2 units)**

Overview of the dynamics and processes underlying the health profiles of Latinos/as and other under representative minorities. Aims to transform a student's individual interest in health into a health professional career goal. Population projections, population characteristics, birth rates, birth rates and outcomes, causes of death and death rates, patterns of reportable diseases, services utilization, patterns of immigration, health insurance, provider training, risk behavior, and chronic diseases will be examined. **Hours:** 36 lect. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. CSU GE E.

### **MEDS B35 Life Span Development (3 units)**

Study of normal human growth and development in prenatal, childhood, adolescent, adult and old age periods. A balanced study of basic theories, research, applications, and principles of physiological, cognitive, and psychosocial development are discussed. Related observations are required. Health maintenance and safety issues for all age levels are incorporated. Concepts of death and dying are considered. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect, field trip required. **Offered:** F, S **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges. BC GE E; CSU GE E.

### **MEDS B51 Exploring Health Care Occupations (2 units)**

Designed to assist students in understanding the scope of practice of health care career options. The students will be given an overview of several health care careers and will acquire the abilities needed to research the basic skills and educational requirements needed for health care careers. Assist students in becoming more aware of own interests, values, and skills which will help in directing their educational plan. **Hours:** 36 lect. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not Degree applicable.

### **MEDS B52 Basic Life Support for Healthcare Providers (0.5 unit)**

An initial or retraining course in Basic Life Support that provides basic knowledge and skills of Basic Life Support and AED use for victims of all ages. Skills learned will enable students to recognize emergencies and how to respond to them. At the end of the course, the successful student will qualify for an American Heart Association Healthcare Provider BLS card. **Hours:** 9. **Repeat:** As needed for recertification. **CCS:** Occupational Education. **Offered:** F,S. SS. **Not Transferable:** Associate Degree only.

### **MEDS B60 Medical Terminology (3 units)**

A study of basic medical terms related to the major body systems. Three units are required for radiologic technology, medical billing and transcribers. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **MEDS B65 Cardiac Rhythm Interpretation (2 units)**

Interpretation of basic cardiac rhythms in health related field settings. Heart anatomy, physiology, dysrhythmia interpretation, and interventions. **Hours:** 36 lect. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **MEDS B66 Intravenous Therapy and Blood Withdrawal (2 units)**

Principles of intravenous therapy and blood withdrawal. Designed to enable the Licensed Vocational Nurse to safely initiate and maintain intravenous therapy in a clinical setting. LVN's successfully completing the course will be certified by the California Board of Vocational Nurse Examiners to initiate and superimpose intravenous fluids. **Prerequisite:** Healthcare provider. **Hours:** 27 lect, 9 lab. **Offered:** F, S. **CCS:**

Occupational Education. **Not Transferable:** Associate Degree only.

### MEDS B67 Nurse Assistant (3.5 units)

Foundation skills for basic caregivers. Topics include role of caregiver, healthcare environments, healthcare safety, adult needs in health and illness and basic caregiving skills.

**Prerequisite:** Concurrent enrollment in MEDS B67L.

**Recommended:** MEDS B60. **Hours:** 63 lect. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### MEDS B67L Nurse Assistant Laboratory (2.5 units)

Foundation skills for basic caregivers. Topics include role of caregiver, healthcare environment, healthcare safety, adult needs in health and illness and basic caregiving skills. Offered on a Pass/No Pass basis only. **Prerequisite:** MEDS B67 (may be taken concurrently). **Recommended:** MEDS B60. **Hours:** 135 lab. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### MEDS B68 Home Health Aide (1 unit)

This course builds upon the foundation of the nurse assistant training to allow students to be certified home health aides. Topics include introduction to aide and agency role, interpretation of medical and social needs of clients, personal care services, nutrition, and cleaning and care tasks in the home. **Prerequisite:** Certified Nurse Assistant. **Hours:** 20 lect, 20 lab. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

## MUSIC

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

### MUSC B2 Basic Elements of Music (3 units)

Designed for the student with little or no previous experience in the reading and writing of music. Development of beginning skills, including ear training, notation, and basic elements of music theory. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.1; IGETC 3.A.

### MUSC B4a-B4b Elementary Theory (3-3 units)

A study of common practice harmony. MUSC B4a: Diatonic harmony including scales, key signatures, triad and seventh chord construction and 4-part voice leading including phrase structure. **Prerequisite:** MUSC B2 or evaluation by instructor of theory fundamentals. **Recommended:** Reading Level 5 or 6. **Corequisite:** MUSC B15a and MUSC B230a. MUSC B4b: Chromatic harmony from secondary dominants through augmented sixth chords including simple form analysis and modulation. **Prerequisite:** MUSC B4a or evaluation by instructor of theory fundamentals. **Recommended:** Reading Level 5 or 6. **Corequisite:** MUSC B15b and MUSC B230b. **Hours:** 54 lect for each 3 unit course. **CCS:** Liberal Arts and Sciences. **Offered:** F (MUSC B4a) S (MUSC B4b).

**Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.1; IGETC 3.A.

### MUSC B4d Intermediate Theory-Contemporary Materials (3 units)

A study of compositional styles and practices since the late 19th century including practical application in composition. Covers advanced chromaticism, impressionism, serialism, pandiatonism, and jazz harmony. **Prerequisite:** MUSC B4b. **Hours:** 54 lect. **Offered:** S. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges.

### MUSC B5a-B5b Class Piano (1-1-1 unit)

Open to students beginning the study of piano. Recommended for students preparing to teach in the elementary grades and for music majors specializing in voice or instruments, other than the piano. **Recommended:** B5a: Reading Level 5 or 6, English Level 6. **Hours:** 36 lab for each unit. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. B5ab: BC GE C.

### MUSC B6a-B6b-B6c-B6d Class Voice (1-1-1 unit)

Elementary solo vocal training. Emphasizes breath control, tone placement, posture, diction and interpretive concepts. B6b-B6c-B6d emphasizes repertoire and further technical development. **Recommended:** B6a: Basic understanding of music fundamentals. **Hours:** 36 lab for each unit **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. B6ab: BC GE C.

### MUSC B9a Class Guitar (1 unit)

Designed to teach the student how to play the guitar. Correct right and left hand technique, how to read guitar music, basic chords, finger-picking and strumming. A suitable acoustic guitar required. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lab. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C.

### MUSC B9b Intermediate Class Guitar (1 unit)

Intermediate techniques of guitar playing. Emphasizes advanced chord positions, scales, arpeggios, slurs, and bar chords. A suitable acoustic guitar required. **Prerequisite:** MUSC B9a. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lab. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C.

### MUSC B9c Advanced Class Guitar (1 unit)

Advanced techniques of guitar playing. Emphasizes advanced chord positions, scales, arpeggios, slurs, and bar chords. A suitable acoustic guitar required. **Prerequisite:** MUSC B9b or equivalent. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lab. **Repeat:** 3. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

### MUSC B10a-B10b-B10c-B10d Concert Band (2-2-2-2 units)

Rehearsal and performance of standard band literature. Participation in public performances such as concerts,

assemblies, and additional rehearsals are required.

**Prerequisite:** Audition. **Hours:** 18 lect, 36 lab for each 2 unit course. Field trips required. **Repeat:** 3 (for each component). **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C.

### **MUSC B12a-B12b-B12c-B12d College Orchestra (2-2-2-2 unit)**

Performance of standard works from the orchestra literature. **Prerequisites:** Audition. **Hours:** 54 lab for each 2 unit course. **Repeat:** 3 (for each component). **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C.

### **MUSC B13a-B13b-B13c-B13d Jazz Ensemble (1-1-1-1 unit)**

Practical experience in organizing instrumental combinations. Training in standard dance band phrasing and improvisation with performances at various functions. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lab for each unit. Field trips required. **Repeat:** 3 (for each component). **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C.

### **MUSC B14a-B14b-B14c-B14d College Choir (2-2-2-2 units)**

Study of major choral literature of all the historical periods. Public performance required for credit. **Prerequisite:** Limitation on enrollment: audition: (Title 5, section 58106). **Hours:** 18 lect, 54 lab. Field trips for performances are required. **Repeat:** 3 (for each component). **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C.

### **MUSC B15ab Ear Training and Sight Singing (1-1 unit)**

Drill in the singing and recognition of intervals, scales, and melodies with solfege syllables using moveable "do." Practice in rhythmic, harmonic, and melodic dictation. Practice in conducting and performing rhythms. Increasingly complex and difficult exercises commensurate with co-requisite theory course level. **Prerequisites:** B15a: Concurrent enrollment in MUSC B4a. B15b: Concurrent enrollment in MUSC B4b. **Hours:** 54 lab for each unit. **Repeat:** 1. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C.

### **MUSC B17a-B17b-B17c-B17d Chamber Singers (2-2-2-2 units)**

A select choral group, specializing in rehearsal and performance of all choral literature for all historical periods. Public performance required. Enrollment subject to audition. **Hours:** 54 lect, 18 lab. Field trips for performances are required. **Repeat:** 3 (for each component). **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C.

### **MUSC B18abcd Drum Line (1-1-1-1 units)**

Rehearsal and performance of drum line literature suitable for field, parade, and competition. Field trips and performances required. **Prerequisites:** Previous experience in a drum line or similar ensemble and evaluation of proficiency by instructor. **Hours:** 54 hours lab for each unit. **Repeat:** 3 (for each component). **Offered:** F, S. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges.

### **MUSC B20ma Mariachi Ensemble (1 unit)**

Practical experience in Mariachi Ensemble. **Hours:** 54 lab. Field trips may be required. **Repeat:** 3. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. **Note:** Elective credit only. Not open to students who have taken the equivalent course, CHST B20ma.

### **MUSC B20sd Steel Drum Band (1 unit)**

Intermediate and advanced instruction in steel drum. Performance experience on steel drum. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lab. Field trips for performance are required. **Repeat:** 3. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

### **MUSC B21a-B21b History of Music (3-3 units)**

Historical survey of western music from the Greco-early Christian era to the present. Uses recorded music and musical scores to study changing musical styles and standards of beauty. For liberal arts and music majors. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect for each 3 unit course. **Offered:** B21a F; B21b S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.1; IGETC 3.A.

### **MUSC B22 Music Appreciation (3 units)**

Introduction to appreciation of western art music. The development of classical music is surveyed with recordings, videos, multi-media computer presentations, and live performances providing illustrations for directed listening as a basis of appreciation. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Fields trips may be required. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.1; IGETC 3.A.

### **MUSC B23 Appreciation of Jazz (3 units)**

History and appreciation of jazz. Lectures, private listening, and concert attendance are required. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.1; IGETC 3.A.

### **MUSC B24 A Survey of World Music (3 units)**

An introductory course surveying some of the dominant musical cultures of the new non-western world with comparisons to western music. Emphasizes listening to and participation in world music through lecture, films, recording, live presentations, and class performance. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.1; IGETC 3.B.

**MUSC B27 History of American Popular Music (3 units)**

Introduction to the historical and stylistic developments of rock music, with emphasis on its social, economic and political consequences. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences.

**Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.1; IGETC 3.A.

**MUSC B54a-B54b-B54c-B54d College Chorale (1-1-1-1 unit)**

Select choral ensemble of mixed voices specializing in the rehearsal and performance of major choral works. Repertoire is selected from choral literature of all periods. **Prerequisites:** Previous experience in a choral group and demonstrated proficiency. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lab for each unit. Field trips for performance are required. **CCS:** Liberal Arts & Sciences. **Not Transferable:** Not degree applicable.

**MUSC B60a-B60b Concepts and Applications of Music Technology (3-3 units)**

A hands-on study of technology as it relates to music. Includes discussion of MIDI computer applications, notation, sequencing, synthesis, digital and analog recording and mixing. **Prerequisite:** B60a: MUSC B2 or evaluation of basic music skills by instructor; concurrent enrollment in MUSC B230a or b. B60b: MUSC B60a and concurrent enrollment in MUSC B230a or b. **Hours:** 54 lect for each 3 unit course. **CCS:** Occupational Education. **Not Transferable:** Associate degree only.

**MUSC B230a-B230b-B230c Music Laboratory (0.5-1 unit. Limit 4 units)**

Self-pacing programmed system instruction in reading, deciphering, and performing the many rhythmic combinations in music. **Hours:** 18 lab for one-half unit. **Repeat:** 3, or until 4 units is reached. **CCS:** Liberal Arts & Sciences. **Not Transferable:** Not degree applicable.

**NATURAL RESOURCES MANAGEMENT**

*See Agriculture*

**NURSING, REGISTERED****NURS B20 Fundamentals of Nursing (4 units)**

This Level 1 course introduces the concepts of the professional nurse, nursing skills, beginning leadership, health care environment, growth and development across the lifespan, basic physiologic and human needs in health and illness, and providing a safe environment. Beginning critical thinking skills are emphasized, within the framework of the nursing process. Correlated clinical experiences are provided with adult patients who have basic health problems with predictable outcomes. The roles of Provider of Care, Manager of Care, and Member of the Profession are introduced and integrated throughout the course. **Prerequisite:** Appropriate standing in the Associate Degree Nursing Program or evaluation of skills and knowledge by the Program Director. **Recommended:** None. **Hours:** 36

lect, 108 lab. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and Private Colleges.

**NURS B21 Medical Surgical Nursing 1 (5 units)**

This Level 1 course introduces medical surgical nursing concepts and practices as they relate to adult clients across the lifespan. Using the nursing process as the framework, the student will begin to recognize alterations in function or illness, and formulate age appropriate nursing interventions. Correlated clinical experiences are provided with adult patients who have basic health problems with predictable outcomes. The roles of Provider of Care, Manager of Care, and Member of the Profession are introduced and integrated throughout the course. **Prerequisite:** Appropriate standing in the Associate Degree Nursing Program or evaluation of skills and knowledge by the Program Director. **Recommended:** None. **Hours:** 45 lect, 135 lab. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and Private Colleges.

**NURS B22 Pharmacology (3 units)**

This Level I course provides the foundation knowledge base related to pharmacology in nursing, including both theoretical and mathematical aspects. The course uses the nursing process as the framework, and addresses the roles of provider of care, manager of care, and member of the profession. Fundamental principles of pharmacodynamics, pharmacokinetics, legal and ethical issues, and nursing responsibilities are covered. Information regarding intravenous drug administration is limited to pharmacokinetics. The drug classes most commonly used in clinical practice are presented. Additionally, information regarding basic mathematical calculations related to medication administration is introduced. **Prerequisite:** Appropriate standing in the Associate Degree Nursing Program or evaluation of skills and knowledge by the Program Director. **Recommended:** None. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and Private Colleges.

**NURS B23 Medical Surgical Nursing 2 (4.5 units)**

This Level 2 course focuses on the development of the knowledge base and skills to care for patients across the lifespan, in various settings, who have higher acuity and more complex nursing needs. The nursing process is the framework for identification and treatment of health problems, and other concerns. Correlated clinical experiences emphasize clinical decision making, patient care management, including prioritization of care, and development of psychomotor skills. Leadership and management knowledge and skills are integrated in both the theory and clinical components. The roles of Provider of Care, Manager of Care, and Member of the Profession are integrated throughout the course. **Prerequisite:** Appropriate standing in the Associate Degree Nursing Program or evaluation of skills and knowledge by the Program Director. **Recommended:** None. **Hours:** 45 lect, 108 lab. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and Private Colleges.

**NURS B24 Obstetrics - Maternity Nursing (3.0 units)**

This Level 2 course provides a foundation for theoretical and technical knowledge base while caring for the contemporary family centered childbirth. Parent/newborn issues are viewed from a nursing process approach for the antepartum, intrapartum, postpartum, and neonatal client. Correlated clinical experiences emphasize clinical decision making, patient care management, including prioritization of care, and development of psychomotor skills. The roles of Provider of Care, Manager of Care, and Member of the Profession are integrated in both the theory and the clinical components.

**Prerequisite:** Appropriate standing in the Associate Degree Nursing Program or evaluation of skills and knowledge by the Program Director. **Recommended:** None. **Hours:** 27 lect, 81 lab. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and Private Colleges.

**NURS B25 Mental Health - Psychiatric Nursing (3.5 units)**

This Level 2 course provides an introduction to Psychiatric Mental Health Nursing, using the nursing process as the framework to promote psychosocial integrity within the context of the health illness continuum across the life span. Emphasis is on therapeutic interactions and communications, bio-psychosocial rehabilitation and therapeutic use of self. Correlated clinical experiences will provide opportunities for students to participate in therapeutic activities in a variety of mental health settings. The roles of Provider of Care, Manager of Care, and Member of the Profession are integrated in both the theory and the clinical components. **Prerequisite:** Appropriate standing in the Associate Degree Nursing Program or evaluation of skills and knowledge by the Program Director. **Recommended:** None. **Hours:** 36 lect, 81 lab. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and Private Colleges.

**NURS B26 Medical Surgical Nursing 3 (5.5 units)**

This Level 3 course focuses on the application of previously learned knowledge as well as the development of more in depth knowledge for adult clients across the lifespan who have more diverse and complex disease states. The nursing process is the framework used in this course to present topics, such as leadership, critical thinking, pharmacology and safety. Correlated clinical experiences are provided with adult patients who have increasingly complex outcomes. The roles of Provider of Care, Manager of Care, and Member of the Profession are integrated and analyzed throughout the didactic and clinical experiences. **Prerequisite:** Appropriate standing in the Associate Degree Nursing Program or evaluation of skills and knowledge by the Program Director. **Recommended:** None. **Hours:** 45 lect, 162 lab. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and Private Colleges.

**NURS B27 Pediatric Nursing (3.5)**

This level 3 course provides a foundation for pediatric nursing using growth and development concepts as a framework for presenting problems and special concerns of the pediatric

client. Communication, anticipatory guidance, response to hospitalization, legal and ethical issues and health care of pediatric clients are discussed. Correlated clinical experiences emphasize clinical decision making, patient care management, including prioritization of care, and development of psychomotor skills. The roles of Provider of Care, Manager of Care, and Member of the Profession are integrated in both the theory and the clinical components. **Prerequisite:** Appropriate standing in the Associate Degree Nursing Program or evaluation of skills and knowledge by the Program Director. **Recommended:** None. **Hours:** 27 lect, 108 lab. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and Private Colleges.

**NURS B28 Medical Surgical Nursing 4 (7.0 units)**

This capstone course focuses on the integration of knowledge and skills through analysis and synthesis. The nursing process is used as the framework for providing nursing care to clients who have critical and complex medical conditions. Correlated clinical experiences emphasize refinement of clinical decision-making, formulating and revising priorities of care; psychomotor skills and patient care management. The roles of Provider of Care, Manager of Care, and Member of the Profession are integrated to promote success in transitioning from student to entry level Registered Nurse. **Prerequisite:** Appropriate standing in the Associate Degree Nursing Program or evaluation of skills and knowledge by the Program Director. **Recommended:** None. **Hours:** 54 lect, 216 lab. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and Private Colleges.

**NURS B29 Gerontology - Community Nursing (2.0 units)**

This level 4 course integrates previous medical surgical knowledge and leadership skills as it applies to the aging adult. The Nursing process framework is used to explore the lifestyle and physical changes that occur with aging, apply the process of initiating health referrals and propose the outcome criteria for evaluating the aging individual's response to teaching/learning. Correlated clinical experiences will emphasize the application of interventions that will increase the older adult's functional ability. The roles of Provider of Care, Manager of Care, and Member of the Profession are integrated throughout the didactic and clinical experiences. **Prerequisite:** Appropriate standing in the Associate Degree Nursing Program or evaluation of skills and knowledge by the Program Director. **Recommended:** None. **Hours:** 18 lect, 54 lab. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and Private Colleges.

**NURS B52 Nursing Process (1 unit)**

Provides learning experience during which students gain instruction in developing nursing laboratory assignments. Covers nursing process in creating a nursing care plan and organizing data for planned delivery of client care. **Prerequisite:** Concurrent enrollment in a nursing laboratory course **Hours:** 48 by arrangement. **Repeat:** 3. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Not degree

applicable. Not open to students who have taken the equivalent course, NURS B252.

### **NURS B60 Perioperative Nursing Practicum (1 unit)**

Clinical experience in perioperative nursing. Designed to apply the concepts of perioperative nursing using the nursing process in a clinical setting. **Prerequisite:** Current licensure as a California Registered Nurse or enrollment in a Registered Nursing Educational Program. **Hours:** 54 lab. Offered: F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **NURS B70 Role Transition: Bridging Nursing Theory to Practice (2 units)**

This level 3 course is designed for the LVN who is pursuing licensure as an RN or the RN who wants to update skills to re-enter the workforce. The focus is on the development of critical thinking skills, physical assessment, the nursing process, role transition, and clinical skill competencies. The roles of provider of care, manager of care, and member of the profession are integrated throughout the course. The lab correlates with the didactic portion and provides an opportunity for application of concepts in the Nursing Skills Lab. **Prerequisite:** LVN or RN licensure; or Nursing student with evaluation of skills and knowledge by the ADN Program Director. **Recommended:** None. **Hours:** 27 lect, 27 lab. **Repeat:** 2. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** Not transferable: Associate Degree only.

### **NURS B100 Strategies for Success in a Nursing Program (2 units)**

Designed to prepare students for successful completion of the nursing program. The student will be given an overview of the program requirements and expectations and they will acquire information and skills that facilitate student success once admitted into the program. Student will also explore nursing career options which will guide the development of their educational plan. Satisfies the 0.5 unit educational planning requirement for graduation from Bakersfield College. Pass/No Pass grading only. **Hours:** 36 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **NURS B201a Learning Lab (1 unit)**

An on-campus laboratory designed for self-paced practice and mastery of nursing skills necessary for providing safe client care throughout the program. This level 1 course provides instructional guidance to assist students to refine newly acquired skills and develop the competency level expected of entry-level nurses. Multimedia and computer assisted instructional materials which support the semester learning objectives are available. Subsequent enrollment in additional semesters will offer the student an opportunity for additional skill and competency development within the subject matter. **Prerequisite:** Enrollment into the ADN or LVN program or nursing student with evaluation of skills and knowledge by the ADN Program Director. Offered Pass/No Pass grading only. **Offered:** F, S, SS. **Hours:** 54 lab. Open entry/open exit. **Repeat**

2. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **NURS B201b Learning Lab (1 unit)**

An on-campus laboratory designed for self-paced practice and mastery of nursing skills necessary for providing safe client care throughout the program. This level 2 course builds upon content from level 1 curriculum and provides instructional guidance to assist students to refine newly acquired skills and develop the competency level expected of entry-level nurses. Multimedia and computer assisted instructional materials which support the semester learning objectives are available. Subsequent enrollment in additional semesters will offer the student an opportunity for additional skill and competency development within the subject matter. **Prerequisite:** Enrollment into the ADN or LVN program or nursing student with evaluation of skills and knowledge by the ADN Program Director. Offered Pass/No Pass grading only. **Offered:** F, S, SS. **Hours:** 54 lab. Open entry/open exit. **Repeat:** 2. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **NURS B201c Learning Lab (1 unit)**

An on-campus laboratory designed for self-paced practice and mastery of nursing skills necessary for providing safe client care throughout the program. This level 3 course builds upon content from level 2 curriculum and provides instructional guidance to assist students to refine newly acquired skills and develop the competency level expected of entry-level nurses. Multimedia and computer assisted instructional materials which support the semester learning objectives are available. Subsequent enrollment in additional semesters will offer the student an opportunity for additional skill and competency development within the subject matter. **Prerequisite:** Enrollment into the ADN or LVN program or nursing student with evaluation of skills and knowledge by the ADN Program Director. Offered Pass/No Pass grading only. **Offered:** F, S, SS. **Hours:** 54 lab. Open entry/open exit. **Repeat:** 2. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **NURS B201d Learning Lab (1 unit)**

An on-campus laboratory designed for self-paced practice and mastery of nursing skills necessary for providing safe client care throughout the program. This level 4 course builds upon content from all previous levels of the curriculum and provides instructional guidance to assist students to refine newly acquired skills and develop the competency level expected of entry-level nurses. Multimedia and computer assisted instructional materials which support the semester learning objectives are available. Subsequent enrollment in additional semesters will offer the student an opportunity for additional skill and competency development within the subject matter. **Prerequisite:** Enrollment into the ADN or LVN program or nursing student with evaluation of skills and knowledge by the ADN Program Director. Offered Pass/No Pass grading only. **Offered:** F, S, SS. **Hours:** 54 lab. Open entry/open exit. **Repeat**

2. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **NURS B252 Nursing Process (1 unit)**

Provides learning experience during which students gain instruction in developing nursing laboratory assignments. Covers nursing process in creating a nursing care plan and organizing data for planned delivery of client care.

**Prerequisite:** Concurrent enrollment in a nursing laboratory course **Hours:** 48 by arrangement. Open entry/open exit. **Repeat:** 3. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable. Not open to students who have taken the equivalent course, NURS B52.

### **NURS B253 Dysrhythmia Interpretation (0.5 unit)**

Provides laboratory time during which students may obtain hands-on experience practicing ECG dysrhythmia interpretation including sinus rhythm, atrial fibrillation, atrial flutter, premature ventricular contractions, ventricular tachycardia, ventricular fibrillation, asystole, paced rhythms, and supraventricular tachycardia. Students will refine their abilities to recognize and interpret common and serious dysrhythmias, gain training and practice on a variety of rhythm strips and become effective practitioners of dysrhythmia recognition.

**Prerequisite:** Concurrent enrollment in NURS B9 and B9L or evaluation by instructor of student's ECG ability. **Hours:** 9 by arrangement. Open entry/open exit. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **NURS B254 Arterial Blood Gas Analysis (0.5 unit)**

Provides laboratory time during which students may obtain hands-on experience practicing arterial blood gas analysis. Students will refine their abilities to interpret arterial blood gases, gain training and become effective practitioners of arterial blood gas analysis. **Prerequisite:** Concurrent enrollment in NURS B9 and B9L. **Hours:** 9 by arrangement. Open entry/open exit. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **NURS B255 Nursing Computer Tutorial Laboratory (0.5 unit)**

Provides reinforcement and remedial instruction through the use of computer assisted instruction (CAI). Assignments would include nursing process, administering medications, how to avoid medication errors, and how to recognize conditions that need a nurse. These CAI's incorporate the nursing process, research, analysis, organization and computers. **Prerequisite:** Concurrent enrollment in a nursing course. **Hours:** 9 by arrangement. Open entry/open exit. **Repeat:** 3. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

### **NURS B256 Nursing Laboratory Internship (1-3 units)**

Provides registered nursing students with an extended opportunity to obtain supervised clinical experience in the application of previously learned knowledge and skills in selected clinical areas. This will increase the confidence, critical

thinking skills, competency and better prepare students as they assume the role of the professional student nurse and progress toward the nurse extern and graduate nurse. **Prerequisite:** Current enrollment and completion of at least the 1st semester of the Associate Degree Nursing Program. **Hours:** 54-162 by arrangement. **Repeat:** 3. **CCS:** Occupational Education. **Offered:** F, S. **SS:** Associate Degree only. **Not Transferable:** Associate Degree only.

### **NURS B257 Nursing Laboratory Externship (1-3 units)**

Provides Registered Nursing students with an opportunity to obtain clinical experience in the application of all previously learned knowledge and skills in various clinical settings. Students will work in a collaborative role with clinical preceptors. This will allow students to practice more independently under the supervision of clinical agency personnel. This will increase the student's nursing judgment skills, critical thinking skills, and competency. The clinical experience in the externship will better prepare students as they assume the role of the professional graduate nurse. **Prerequisite:** Current enrollment, in good standing, in the ADN Program and completion of all 3rd semester courses; or completion of NURS B256, or evaluation by all 3rd semester instructors of student's nursing skills. **Hours:** 54-162 lab. **Repeat:** 2. **CCS:** Occupational Education. **Offered:** F, S. **SS:** Associate Degree only. **Not Transferable:** Associate Degree only.

## **NURSING, VOCATIONAL**

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

### **VNRS B1 Nursing Fundamentals (3 units)**

Provides a foundation of basic nursing arts and sciences necessary for the practice of nursing. Professional issues and trends of nursing are identified along with the development of an understanding of the nursing process. Concepts of the nurse, client and health care environment, professional nursing and nursing skills, growth and development of the adult, human needs in health and illness, basic physiological needs, and providing a safe environment are presented. **Prerequisites:** Entrance in the ADN or VN Program having met program prerequisites or evaluation by program director for skills and knowledge, concurrent enrollment in VNRS B1LV. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **VNRS B1g Gerontological Nursing (1 unit)**

Provides a foundation of basic gerontological nursing using demographics, theories of aging and growth and development concepts as a framework for presenting health problems and special concerns of the elderly. Legal and ethical issues, economics, and healthcare of older adults using a nursing process approach are discussed. **Prerequisites:** Entrance in the ADN or VN Program or evaluation by program director for skills and knowledge, concurrent enrollment in VNRS B1LV.

**Hours:** 18 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **VNRS B1LV Vocational Nursing Laboratory (6 units)**

Laboratory course correlated with the first semester theory courses in the Vocational Nursing Program. The major focus will be on learning fundamental nursing skills with application in geriatric and medical surgical settings. Incorporated is the nursing process which utilizes the skills of assessment, planning, intervention and evaluation providing a systemic approach to nursing practice. **Prerequisite:** Appropriate standing in the VN Program and concurrent enrollment in VNRS B1, VNRS B75 and VNRS B1G. **Hours:** 324 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **VNRS B6 Pediatric Nursing (1.5 units)**

Provides a foundation for pediatric nursing using growth and development concepts as a framework for presenting health problems and special concerns of the pediatric client. Communication, anticipatory guidance, response to hospitalization, legal and ethical issues and health care of pediatric clients are discussed. **Prerequisites:** Completion of the first and second semesters of ADN/VN Program or evaluation by program director of skills and knowledge, concurrent enrollment in VNRS B97LV. **Hours:** 27 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Not open to students who have taken the equivalent course, NURS B6.

### **VNRS B7 Parent/Newborn Nursing (1.5 units)**

Provides an overview of contemporary family-centered childbirth, incorporating the self-care movement and changing roles of the nurse. Legal and ethical issues of maternal/newborn nursing are discussed. Coverage of maternal/newborn nursing uses a nursing process approach for antepartum, intrapartum, postpartum, and neonatal care. **Prerequisites:** Completion of the first semester of ADN or second semester VN program or evaluation by program director for skills and knowledge, concurrent enrollment in VNRS B87LV. **Hours:** 27 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Not open to students who have taken the equivalent course, NURS B7.

### **VNRS B31ab Basic Pharmacology (2 units)**

Provides a foundation for pharmacological nursing using the nursing process as the framework for presenting concepts and principles of pharmacology and drug administration. Legal and ethical issues, nursing responsibilities and client participation associated with medication administration are discussed. A nursing process approach is utilized throughout every aspect of drug study and drug administration. **Prerequisite:** Entrance in the first semester of the ADN or VN program or evaluation by program director or instructor for skills and knowledge. **Hours:** 36 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **VNRS B50a Advanced Pharmacology (0.5 unit)**

Designed to prepare the vocational nurse to function safely when administering medication to a group of clients. Student will be administering medications to more complex clients in the laboratory setting. Expounds on principles learned in VNRS B31ab. **Prerequisite:** Appropriate standing in the VN Program and VNRS B31ab with a "C" or better. **Hours:** 9 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **VNRS B50b Advanced Pharmacology - Part B (0.5 units)**

Designed to prepare the vocational nurse to function safely when administering medication to a group of clients. Students will be administering medications to more complex clients in the laboratory setting. Expounds on principles learned in VNRS B31ab. **Prerequisite:** Appropriate standing in the VN Program and VNRS B31ab with a grade of "C" or better. **Hours:** 9 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **VNRS B75 Medical Surgical Nursing I (3.5 units)**

Provides a study of etiology, pathophysiology, assessment, planning and evaluation of adult clients with gastrointestinal, skin, eye, ear, upper airway, nutritional genitourinary, and fluid and electrolyte disorders. Integrated into course are beginning concepts of the therapeutic, use of drugs, diet therapy, and the physiological and psychosocial problems. Students are required to initiate critical thinking skills when dealing with clients and families. Concepts and skills in course are correlated in laboratory settings presented in the corresponding NURS B1LV. **Prerequisite:** Appropriate standing in the VN Program and concurrent enrollment in NURS B1LV. **Hours:** 64 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **VNRS B85 Medical Surgical Nursing II (2.5 units)**

Provides a study of etiology, pathophysiology, assessment, planning and evaluation of adult clients with cardiovascular, peripheral vascular and respiratory disorders. Knowledge imparted builds on nursing theory from the previous medical surgical nursing course (VNRS B75). Emphasis will be placed on developing critical thinking skills. Concepts and skills in this course will be correlated in the various laboratory settings presented in the corresponding VNRS B85LV. **Prerequisite:** Appropriate standing in the VN Program and concurrent enrollment in VNRS B85LV. **Hours:** 45 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **VNRS B85LV Medical Surgical Nursing II-Clinical Laboratory (1.5 units)**

Lab course which is correlated with the corresponding medical surgical course in the Vocational Nursing Program. Focus of course is team leading, time management in caring for two clients, providing medications to a group of clients and in improving on skills learned in Medical Surgical Nursing I. Incorporated into this course is the utilization of intermediate assessment, planning, intervention and evaluation under clinical

supervision. **Prerequisite:** Appropriate standing in the VN Program and concurrent enrollment in VNRS B85. **Hours:** 81 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **VNRS B86 Medical Surgical Nursing III (4 units)**

Provides a study of etiology, pathophysiology, assessment, planning and evaluation of adult clients with musculoskeletal, connective tissue, and endocrine disorders. Knowledge imparted builds on nursing theory from the previous medical surgical nursing course (VNRS B75, VNRS B85). Emphasis will be placed on developing critical thinking skills. Concepts and skills in this course will be correlated in the various laboratory settings presented in the corresponding VNRS B86LV. **Prerequisite:** Appropriate standing in the VN Program and concurrent enrollment in VNRS B86LV. **Hours:** 72 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **VNRS B86LV Medical Surgical Nursing III - Clinical Laboratory (3 units)**

Laboratory course correlated with the corresponding medical surgical course in the Vocational Nursing Program. Focus is team leading, time management in caring for two clients, providing medications to a group of clients and in improving on skills learned in Medical Surgical Nursing II. Incorporated into course is the utilization of intermediate assessment, planning, intervention and evaluation under clinical supervision. **Prerequisite:** Appropriate standing in the VN Program and concurrent enrollment in VNRS B86. **Hours:** 162 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **VNRS B87LV Maternal Newborn-Clinical Laboratory (1.5 units)**

Laboratory course which is correlated with the corresponding maternal-newborn course in the Vocational Nursing Program. Incorporated is the nursing process which utilizes the skills of assessment, planning, intervention and evaluation providing a systemic approach to nursing practice. **Prerequisite:** Appropriate standing in the VN Program and concurrent enrollment in VNRS B7. **Hours:** 81 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **VNRS B95 Medical Surgical Nursing IV (4 units)**

Provides a study of etiology, pathophysiology, assessment, planning and evaluation of adult clients with more complex and critical medical surgical problems and disease states, including multi-system involvement and trauma. Emphasis placed on advanced medical skills. Concepts and skills in this course will be correlated in the various clinical settings presented in the Medical-Surgical Laboratory. **Prerequisite:** Appropriate standing in the VN Program and concurrent enrollment in VNRS B95LV. **Hours:** 72 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **VNRS B95LV Medical Surgical Nursing IV - Laboratory (2.5 units)**

Laboratory course which is correlated with the corresponding medical surgical course in the Vocational Nursing Program. Focus is team leading, time management in caring for two clients, providing medications to a group of clients and improving on skills learned in Medical Surgical Nursing III. Also covers the utilization of intermediate assessment, planning, intervention and evaluation under clinical supervision. **Prerequisite:** Appropriate standing in the VN Program and concurrent enrollment in VNRS B95. **Hours:** 135 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree.

### **VNRS B96 Medical Surgical Nursing V (2 units)**

Provides a study of etiology, pathophysiology, assessment, planning and evaluation of adult clients with more complex and critical medical surgical problems and disease states, including multi-system involvement and trauma. Emphasis placed on advanced medical skills. Concepts and skills in this course will be correlated in the various clinical settings presented in the Medical-Surgical Laboratory. **Prerequisite:** Appropriate standing in the VN Program and concurrent enrollment in VNRS B96LV. **Hours:** 36 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **VNRS B96LV Medical Surgical Nursing V - Laboratory (2 units)**

Laboratory course which is correlated with the corresponding medical surgical course in the Vocational Nursing Program. Focus is team leading, time management in caring for two clients, providing medications to a group of clients and in improving on skills learned in Medical Surgical Nursing IV. Incorporated into course is the utilization of intermediate assessment, planning, intervention and evaluation under clinical supervision. **Prerequisite:** Appropriate standing in the VN Program and concurrent enrollment in VNRS B96. **Hours:** 108 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **VNRS B97LV Pediatrics - Clinical Laboratory (1.5 units)**

Laboratory course which is correlated with the corresponding pediatric course in the Vocational Nursing Program. Incorporated is the nursing process which utilizes the skills of assessment, planning, intervention and evaluation providing a systemic approach to nursing practice. **Prerequisite:** Appropriate standing in the VN Program and concurrent enrollment in VNRS B6. **Hours:** 81 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

## **NUTRITION**

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

### **NUTR B10 Elementary Nutrition (3 units)**

Basic concepts and principles of nutrition with application to current nutrition issues. Emphasizes improvement of personal health through proper eating habits. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect/disc. Field trips may be required.

**CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. BC GE E, CSU GE E.

### **NUTR B50 Modified Diets (2 units)**

Nutrition care for acute illnesses and chronic diseases. Related normal and abnormal physiology, nutrition assessment and care plans and client education techniques are emphasized. **Prerequisite:** NUTR B10 with a grade of "C." **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect/disc. Field trips may be required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### **NUTR B255 Nutrition Computer Lab (1 unit)**

Provides supervised laboratory time during which students may obtain hands-on-experience getting practice using a diet analysis software program to compute nutritional assessments. **Prerequisite:** Concurrent enrollment in NUTR B10 or GERO B40. **Hours:** Independent Study.. Open entry/open exit. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students who have taken the equivalent course, GERO B255.

## **OFFICE TECHNOLOGY**

*See Business Administration*

## **PHILOSOPHY**

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

### **PHIL B6a Introduction to Philosophy (3 units)**

A method, problems, multicultural and historical approach to philosophy. Epistemology (the study of knowledge), metaphysics (the study of reality), ethics (the study of morality), and philosophy of religion are covered from both traditional Western and non-Western sources. **Recommended:** Reading Level 5 or 6, English Level 6. **Hours:** 54 lect. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 3.B.

### **PHIL B7 Introduction to Logic (3 units)**

Traditional basics of correct reasoning with an emphasis on their relationships to language, thought and argument. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE B.2; CSU GE A.3

### **PHIL B9 Critical Thinking and Advanced Composition (4 units)**

Development of critical thinking skills necessary for evaluating and formulating argumentative/persuasive essays, and practice in applying those skills. **Prerequisite:** ENGL B1a with a "C" or better. **Hours:** 72 lect. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE B.2; CSU GE A.3, C.2; IGETC 1.B.

### **PHIL B10 Introduction to Ethics (3 units)**

Examination of the philosophical approach to morality. Study of the meaning of ethics and morality and methods used in ethical theorizing and reasoning. Emphasizes major ethical issues and theories. Discusses how to set up an ethical system. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 3.B.

### **PHIL B12 Ethics of Living and Dying (3 units)**

A philosophical yet practical approach to some of the major medical-ethical problems facing human beings today, such as: what patients should be told, the nature and importance of informed consent, the meaning and criteria for living, dying, and death including caring for the dying and allowing to die, mercy death, and mercy killing. Permeating these problems will be a study of the basis for ethical relationships among human beings through a study of what morality is, consequentialist and nonconsequentialist theories of morality, and how to set up an ethical system. Special emphasis will be placed on the relationship of the professional and the well to the sick, dying, and bereaved. **Recommended:** Reading Level 5 or 6, English Level 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; CSU GE E.

### **PHIL B18 History of Ancient Philosophy (3 units)**

The history of ancient philosophy surveys the development of Western philosophy from the Presocratics to the Hellenistics with particular emphasis on the philosophies of Plato and Aristotle. The focus throughout will be on analyzing and evaluating the central arguments of these philosophers as well as understanding how their views have contributed to the subsequent development of philosophy, science, art, and literature. **Recommended:** Reading Level 5 or 6 and English Level 6. **Hours:** 54 lect. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE C, CSU GE C.2, IGETC 3.B

### **PHIL B32 World Religions: East (3 units)**

Survey of two main Eastern religions-Hinduism and Buddhism, and study of other important Asian religions such as Jainism, Sikhism, Lamaism, Confucianism, Taoism, and Shinto. Topics include each religion's history, sacred scriptures, geographic dispersion, primary theological concepts and spiritual practices, and its role in contemporary society. Emphasis will be placed on understanding the distinct belief and practice of an individual in each of these religious traditions. **Recommended:** Reading Level 5 or 6, English Level 6. **Hours:** 54 lect. Field trips required. **Offered:** F. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 3.B.

### **PHIL B33 World Religions: West (3 units)**

Survey of three western religions-Judaism, Christianity, and Islam-and background religions to these, including Egyptian, Persian, and European. Topics include each religion's history,

sacred scriptures, geographic dispersion, primary theological concepts and spiritual practices, and its role in contemporary society. Emphasis will be placed on understanding the distinct belief and practice of an individual in each of these religious traditions. **Recommended:** Reading Level 5 or 6, English Level 6. **Hours:** 54 lect. Field trips required. **Offered:** S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 3.B.

### PHIL B37 Introduction to the World Religions (3 units)

A survey of three Western religions \_ Judaism, Christianity, and Islam, and two Eastern Religions - Hinduism and Buddhism. Examines each religion's history, sacred scriptures, geographic dispersion, primary theological concepts and spiritual practices, and contemporary role. Emphasis on understanding the distinct belief and practice of an individual in each of these religious traditions. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 3.B.

### PHIL B255 Supplemental Philosophical Thinking and Writing Lab (0.5 unit)

Designed for Philosophy students desiring additional assistance in specific areas. Students will work on assignments from Philosophy courses in which they are concurrently enrolled.

**Prerequisite:** Concurrent enrollment in PHIL B6a or B7.

**Hours:** 9 hours by arrangement. Individualized instruction and supervised lab. Open entry/open exit. **Repeat:** 3. **CCS:** Liberal Arts and Sciences. **Not Transferable:** Not degree applicable.

## PHYSICAL EDUCATION

*Credit limitations may apply. For specific information see a counselor or the transfer institution. UC campuses give a maximum of four semester units of credit for Physical Education activity courses.*

### PHED B2 Through B9

**Hours:** 36 hours participation unless otherwise indicated.

Note: Activity courses may be repeated 3 times. Example: PHED B6t (tennis). A student may take four tennis classes- all four beginning or intermediate or advanced or any combination of those equaling four enrollments. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. CSU GE E.

### PHED B2 Aquatics Courses (1 unit)

PHED B2dwr Deep Water Running  
PHED B2sb Beginning Swimming, BC GE E.  
PHED B2ssf Swim and Stay Fit  
PHED B2wa Water Aerobics  
PHED B2wp Water Polo

### PHED B3adp Adaptive Physical Education (1 unit)

Individualized fitness class for the physically challenged emphasizing resistive circuit training combined, when possible, with aerobic training. **Repeat:** 3. Repetitions of adaptive physical education are allowed (beyond three) provided the student participates in at least one additional credit course that

is not a physical education class and makes progress toward the stated educational goal and justification is documented by a DSPS counselor in the student's educational plan for the current term. BC GE E.

### PHED B5 Team Activities for Women (1 unit)

PHED B5vb-Volleyball.

**Recommended:** Experience in organized interscholastic Volleyball or equivalent.

PHED B5wsb-Softball.

**Recommended:** Experience in organized interscholastic Softball or equivalent.

PHED B5wsc-Soccer.

**Recommended:** Experience in organized interscholastic Soccer or equivalent.

### PHED B6 Coeducational Team and Individual Activities (1 unit)

PHED B6a Archery, BC GE E.

PHED B6bb Basketball, BC GE E.

PHED B6bLb Beginning Ballet (Note: same as DANC B6bLb)  
BC GE E

PHED B6da Dance Aerobics, BC GE E.

PHED B6fcx Fitness Center, BC GE E.

PHED B6g-golf, BC GE E.

PHED B6hx-health exercises

PHED B6jd-jazz dance (Note: same as DANC B6jd)  
BC GE E.

PHED B6kx CardioKickboxing Fitness, BC GE E.

PHED B6md-modern dance (Note: same as DANC B6md),  
BC GE E.

PHED B6pf Physical Fitness, BC GE E.

PHED B6pl Pilates, BC GE E.

PHED B6py Pilates/Yoga Mat Flow, BC GE E.

PHED B6sc Soccer, BC GE E.

PHED B6t Tennis, BC GE E.

PHED B6v Volleyball, BC GE E.

PHED B6vi Intermediate Volleyball, BC GE E.

PHED B6wt-Weight Training, BC GE E.

PHED B6y Yoga, BC GE E.

### PHED B7 Advanced Team and Individual Activities for Men (1 unit)

PHED B7b Advanced Baseball

**Recommended:** Experience in organized interscholastic Baseball or equivalent.

PHED B7fb Advanced Football

**Recommended:** Experience in organized interscholastic Football or equivalent.

PHED B7w Advanced Wrestling.

**Recommended:** Experience in organized interscholastic Wrestling or equivalent.

### PHED B9 Advanced Team and Individual Coeducational Activities (1 unit)

PHED B9s Advanced Swimming

**Recommended:** Experience in organized interscholastic Swimming or equivalent.

PHED B9t Advanced Tennis

**Recommended:** Experience in organized interscholastic Tennis or equivalent.

PHED B9tr Advanced Track

**Recommended:** Experience in organized interscholastic Track and Field or equivalent.

### INTERCOLLEGIATE ATHLETICS

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

#### Athletic Code Eligibility Requirements

An athlete must be continuously enrolled in a minimum of 12 units during the season of competition. Those competing in a sport must successfully complete 24 units to be eligible for a second season of competition. A 2.0 grade point average must be maintained to be eligible to participate.

#### Intercollegiate Competition for Men (2 units each unless otherwise indicated)

Must meet athletic code eligibility requirements. **Hours:** 180 hours by arrangement (usually 2 hours per day). Field trips may be required. **Repeat:** 3. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. **Note:** May be substituted for physical education requirement for graduation. (UC campuses give a maximum of four semester units of credit for appropriate Physical Education Activity courses.) BC GE E; CSU GE E.

PHED B10 Intercollegiate Football

PHED B11 Intercollegiate Basketball (Fall-2 units; Spring-1 unit)

PHED B12 Intercollegiate Track and Field

PHED B13 Intercollegiate Tennis

PHED B14 Intercollegiate Baseball

PHED B16 Intercollegiate Golf

PHED B17 Intercollegiate Cross-Country

PHED B20 Intercollegiate Wrestling

#### Intercollegiate Competition for Women

(2 units each unless otherwise indicated)

Must meet athletic code eligibility requirements. **Hours:** 180 hours by arrangement (usually 2 hours per day). Field trips may be required. **Repeat:** 3. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. **Note:** May be substituted for physical education requirements for graduation. (UC campuses give a maximum of four semester units of credit for appropriate Physical Education Activity courses.) BC GE E; CSU GE E.

PHED B22 Women's Intercollegiate Tennis

PHED B23 Women's Intercollegiate Soccer

PHED B24 Intercollegiate Golf for Women

PHED B25 Women's Intercollegiate Volleyball

PHED B26 Women's Intercollegiate Track and Field

PHED B27 Women's Intercollegiate Cross-Country

PHED B28 Women's Intercollegiate Basketball (Fall-2 units; Spring-1 unit)

PHED B29 Women's Intercollegiate Softball

#### PHED B30 Dance and Cheer Techniques (1-2 units)

Instruction, training and practical experience in the techniques for the development of cheer routines. Activities include choreography and composition of routines and dance preparations for various college and community service performances. Attendance at athletic events and rallies is required. This class is restricted to members of the current BC Cheer Team only. **Prerequisite:** Limitation on enrollment: audition (Title 5:58106). **Repeat:** 3. **Hours:** 54 hours in the class and field by arrangement for each unit. **Offered:** F, S, SS. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges. **Note:** Elective credit only. CSU GE E.

#### PHED B31 Standard First Aid (1 unit)

Administering first aid in emergency and accident situations. Includes wounds and their care, shock, C.P.R., injuries, burns, effects of heat and cold and the transportation of the injured. Upon successful completion, each student will qualify for an American Red Cross Standard First Aid card. **Hours:** 18 lect/disc. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

#### PHED B32 Shape Up (1-3 units)

An integration of physiological, psychological and sociological understandings of the human being in relationship to physical activity as a lifelong pursuit. Topics include physical fitness, stress reduction, socialization, and individual differences in human behavior. **Hours:** 6 lect, 30 participation for 1 unit; 12 lect, 60 participation for 2 units; 18 lect, 90 participation for 3 units. **Offered:** F, S, SS. **Repeat:** 3 or until a maximum of 12 units is reached. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. BC GE E; CSU GE E.

#### PHED B33 Men's and Women's Intercollegiate Swimming (2 units)

Intercollegiate Coeducational Competition **Prerequisite:** Must meet athletic code eligibility requirements. **Hours:** 180 by arrangement (usually 2 hours per day). Field trips may be required. **Repeat:** 3. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. BC GE E; CSU GE E.

#### PHED B39a Prevention and Care of Athletic Injuries (3 units)

An introduction to the field of sports medicine. Evaluation, rehabilitation and prevention of athletic injuries. Major emphasis will be on prevention of injuries and performance enhancement, through pre-screening for potential biomechanical deficiencies, strength training, conditioning, flexibility, nutrition and proper hydration techniques. The instructor will properly advise students who take this course of limitations and proper skills applications. **Hours:** 36 lect, 54 lab. Field trip required. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**PHED B39b Advanced Athletic Training (3 units)**

Evaluation and rehabilitation of athletic injuries; exposure to various physical therapy modalities and prevention of injuries will be discussed. The athletic trainer will properly advise students who take this course of limitations and proper skills applications. **Recommended:** BIOL B14 or B18 or B20 or evaluation by instructor of student's knowledge of musculoskeletal anatomy. **Hours:** 36 lect, 54 lab. Field trip required. **Offered:** S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. Note: Elective credit only.

**PHED B40 Introduction to Physical Education (3 units)**

Exploring employment opportunities in the field of physical education, history and teaching of physical education and the contribution made to the mental, social and physical well-being of society. Recommended for students pursuing a major or minor in Physical Education or Recreation. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**PHED B41 Recreation Leadership (3 units)**

Survey of employment opportunities in the field of recreation. Students will learn the meaning and scope of recreation leadership, the problems of organization, types of activities, and elements of leadership. Recommended for students pursuing a major or minor in Physical Education or Recreation. **Hours:** 54 lect/disc. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and Private Colleges.

**PHED B44mb Theory of Basketball - Men (3 units)**

Designed to provide students the opportunity to master coaching techniques, coaching philosophy, practice organization, and various elements of coaching basketball. **Hours:** 54 lect. **Repeat:** 3. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges. Note: elective credit only.

**PHED B44sb Theory of Softball (3 units)**

Designed to provide students the opportunity to master coaching techniques, coaching philosophy, practice organization, and strategies involved in the game of softball. **Hours:** 54 lect. **Repeat:** 3. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. Note: elective credit only.

**PHED B44so Theory of Soccer (3 units)**

Designed to provide students the opportunity to master coaching techniques, coaching philosophy, practice organization, and strategies involved in the game of soccer. **Hours:** 54 lect. **CCS:** Liberal Arts and Science. **Transferable:** UC, CSU and private colleges. Note: elective credit only.

**PHED B44vb Theory of Volleyball (3 units)**

Designed to provide students the opportunity to acquire coaching techniques, coaching philosophies, practice

organizational skills, management and leadership skills, as well as strategies involved in the game of volleyball. **Hours:** 54. **Repeat:** 3. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges.

**PHED B44wb Theory of Basketball - Women (3 units)**

Designed to provide students the opportunity to master coaching techniques, coaching philosophy, practice organization, and various elements of coaching basketball. **Hours:** 54 lect. **Repeat:** 3. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges. Note: elective credit only.

**PHED B45 Theory of Football (3 units)**

Designed to give students an understanding of the principles of defensive, offensive and the kicking game of football. Also covers practice planning, skill development, game strategies and coaching. **Recommended:** Experience in organized interscholastic Football or the equivalent. **Hours:** 54 lect. **Offered:** F. **Repeat:** 3. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**PHED B46 Theory of Track and Field (3 units)**

Designed to provide students the opportunity to master coaching techniques, coaching philosophy, practice organization, and administration and officiating at track and field meets. **Hours:** 54 lect. **Repeat:** 3. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges.

**PHED B47 Theory of Baseball (3 units)**

Designed to provide students the opportunity to master coaching techniques, coaching philosophy, practice organization, and strategies involved in the game of baseball. **Hours:** 54 lect. **Repeat:** 3. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges. Note: Elective credit only.

**PHED B49 Special Topics (1 unit)**

Various activities designed to provide students with lifestyle opportunities in sport and fitness. Emphasis on using the natural and available local environment for sport and fitness activities. Designed to accommodate all levels of physical fitness and skill. **Hours:** 36 participation. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges. BC GE E.

**PHYSICAL SCIENCE**

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

**PHSC B12 Physical Science (4 units)**

Introduces facts, principles and laws from physics and chemistry. Includes motion, force, energy, electricity and magnetism, waves, atom, periodic laws, ions, solutions, chemical reaction, organic chemistry. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 54 lab. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE B.1; CSU GE B.1, B.3.

**PHSC B21 Special Projects in Physical Science (0.5-3 units. Limit 3 units)**

Individually directed work in a science, engineering or architecture area. Individual research problems using materials, equipment and techniques not available in larger classes.

**Prerequisites:** Completion of a basic course in science, engineering, or drafting with a minimum grade of “C.”

**Recommended:** Reading Level 5 or 6. **Hours:** 27 directed study for each 0.5 unit. **Repeat:** 2, or until a limit of 3 units is reached. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

**PHSC B35e Cup and Saucer Chemistry (1 unit)**

An inexpensive approach to studying chemical happenings. Emphasizes a ‘hands on’ approach to doing and developing experience in chemistry that leads to an understanding of investigation, Metric, particle nature of matter, energy and the shape of things. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect/disc. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

**PHYSICS**

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

The introductory courses in Physics (Physics B2a-B2b or B4a-4c) and Chemistry (Chemistry B11, B2a or B1a-B1b) are designed to provide the basic foundation in and understanding of the laws and principles of the physical world (matter and energy) for all science, health science, and pre-professional majors. These courses should be completed early in a student’s academic program sequence of study to ensure greater academic success in subsequent courses in the student’s field of interest and a more complete understanding of that field.

**PHYS B2a General Physics - Mechanics and Heat (4 units)**

The properties of matter, mechanics and heat. Emphasizes understanding laws, principles, and theories. Required for most science, pre-medical, most other pre-professional and technical majors. **Prerequisites:** MATH BD, MATH B1a (may be taken concurrently). **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 54 lab. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE B.1; CSU GE B.1, B.3; IGETC 5.A.

**PHYS B2b General Physics - Sound, Light, Electricity, Magnetism, Modern Physics (4 units)**

The properties of waves, sound, light, electricity, magnetism, atomic and nuclear physics. Emphasizes understanding laws, principles and theories. Required for most science, pre-medical, and most other pre-professional and technical majors. **Prerequisites:** MATH B1b (or old MATH BC), and either PHYS B2a or high school physics with a “C” or better. **Hours:** 54 lect, 54 lab. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

**PHYS B4a Mechanics and Wave Motion (4 units)**

The first in a sequence of three semester courses required of physics, engineering, and other majors requiring a thorough physics background. Includes vectors, kinematics, dynamics, momentum, energy, rotation, gravitation, oscillations, fluids, and wave motion. **Prerequisite:** MATH B6a. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 54 lab. **Offered:** S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE B.1; CSU GE B.1, B.3; IGETC 5.A.

**PHYS B4b Heat, Electricity and Magnetism (4 units)**

The second in a three-semester calculus-based physics sequence required of physics, engineering, and other majors requiring a thorough physics background. Includes thermodynamics, electricity, magnetism, and electromagnetic oscillations and radiation. Emphasizes principles, laws and problem-solving. **Prerequisite:** PHYS B4a and MATH B6c (MATH B6c may be taken concurrently). **Hours:** 54 lect, 54 lab. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges.

**PHYS B4c Optics and Modern Physics (4 units)**

The third in a 3-semester calculus-based physics sequence required of physics, engineering, and other majors requiring a thorough physics background. Includes geometric optics, physical optics, relativity, quantum physics, quantum mechanics, atomic and molecular physics, solid state physics, and nuclear. Emphasizes principles, laws, and problem solving. **Prerequisite:** PHYS B4b. **Recommended:** Concurrent enrollment in MATH B6d. **Hours:** 54 lect, 54 lab. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges.

**POLITICAL SCIENCE****POLS B1 American Government: National, State and local (3 units)**

A study of American government with emphasis on the national government. Includes a comprehensive analysis of governmental structure, functions, principles and problems. Includes analysis of California state and local governments. Partially satisfies the requirements in U.S. Constitution, American history and institutions and California state and local government. **Recommended:** Eligibility for English 1, Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE D.2, D.3; CSU GE D.8; IGETC 4.

**POLS B2 Comparative Government (3 units)**

A comparative analysis of government structures and the underlying economic, social, and cultural systems of the principal nations of the industrial world: United Kingdom, France, Federal Republic of Germany, Russia, and Japan. Additional emphasis on certain nations in sensitive geographic areas or countries whose size and developing economies make them important, such as the People’s Republic of China, Brazil, Mexico, Israel, Egypt, India and Nigeria. **Recommended:**

Eligibility for ENGL B50 and Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE D.2; CSU GE D.8; IGETC 4.

### **POLS B3 International Politics (3 units)**

Surveys the dynamics and ideologies of present-day international politics and rivalries. Development of the national state system and the evolution of the techniques and arts of diplomacy, and the causes of war. **Recommended:** Eligibility for English 1 and Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE D.2; CSU GE D.8; IGETC 4.

### **POLS B5 Current Issues in American Government (1-2 units. Limit 6 units)**

Study of special current events, such as elections, impeachment proceedings, public policies, or Constitutional revisions. Offered only as such events occur. **Hours:** 18 lect for each unit. **Repeat:** 3 or until a limit of 6 units is reached. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

### **POLS B12 Contemporary Issues in California State and Local Government (3 units)**

Analysis of the role of state and local governments, with special emphasis directed to the history and development of these institutions; the state and local political environment; party, interest group, citizen and media inputs; current problems and changing functions affecting local governments. Partially satisfies the requirements in U.S. Constitution, American history and institutions. **Recommended:** Eligibility for English 1, Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. BC GE D.2, D.3; CSU GE D.8.

### **POLS B16 Vital Political Problems (3 units)**

Examination of major political problems challenging the United States today. Emphasis on class discussion and individual analysis of controversial topics involving political policy in the context of the study of political science. **Recommended:** Eligibility for English 1 and Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE D.2; CSU GE D.8; IGETC 4.

### **POLS B42ab Principles of Leadership: Theories, Styles and Realities (2-2 units)**

Introduction to the dynamics of working groups and the impact of leadership on the effectiveness of groups; examination of the linkage between concepts and theories of leadership to the everyday functioning of student organizations; understanding of the role played by structure and governance models in organizational effectiveness. Specific instruction in the principles of administration of: the co-curricular activities; ASBC finances, including budgetary procedures and parliamentary procedures and group dynamics. One hour each week is devoted to a student body and/or business meeting

and one hour to in-class instruction. Student officers serving their first term are required by ASBC By-Laws to enroll in this course. **Hours:** 18 lect, 18 lab for each 2 unit course. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges. **Note:** Elective credit only.

## **PSYCHOLOGY**

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

### **PSYC B1a General Psychology (3 units)**

An introduction to the scientific study of behavior. Emphasizes perceptions, thinking, motivation, emotion, intelligence and learning; designed to contribute significantly to the general education of all students as well as to provide a basis for further study in the field of psychology. Major emphasis is placed upon general psychological principles. **Recommended:** English Level 5 and Reading level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE D.1; CSU GE D.9, E; IGETC 4.

### **PSYC B1b Biological Psychology (3 units)**

An introduction to the scientific study of the biological bases for human thought and behavior. Emphasis placed on brain's involvement in psychological phenomenon such as development, learning, memory, health, sensation, perception, drug use, sleep, brain damage and psychopathology. Designed for psychology majors planning for upper division work in psychology. **Recommended:** PSYC B1a, Reading Level 5 or 6, English Level 5. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. CSU GE B.2; IGETC 5.B.

### **PSYC B2 Interpersonal and Group Process Skills for the Helping Occupations (3 units)**

Readings and practice in skills for effective functioning in interpersonal and group settings, including active listening, interviewing, group interaction and decision making. Emphasizes the development of skills specific to human services settings, relating across differences in race, gender, ethnicity, sexual orientation, and social class in preparation for the workplace. **Recommended:** Reading Level 5 or 6, English Level 5. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges. **Note:** Not open to students who have taken the equivalent course, HMSV B2.

### **PSYC B5 Elementary Statistics for the Behavioral and Social Sciences (5 units)**

Statistics as applied to the behavioral and social sciences. Emphasizes research design, the organization of data, measures of central tendency and variability, the normal curve, correlation and regression, hypothesis testing, parametric and nonparametric techniques, and one-way and two-way analysis of variance. **Prerequisites:** MATH BD. Introductory course in Psychology, Sociology, Anthropology, Economics or Political Science (may be taken concurrently). **Recommended:** Reading Level 5 or 6, English Level 5. **Hours:** 90 lect. **Offered:** F, S.

**CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. **Note:** Not open to students who have taken the equivalent course, BEHS B5. BC GE B.2; CSU GE B.4, IGETC 2A.

### PSYC B20 Social Psychology (3 units)

Examines the theory and research concerning the effects of social influences on individual behavior. Topics include, but are not limited to, the social self, self preservation, attitude formation and change, prosocial behavior, attribution and people perception, aggression, prejudice, compliance, conformity, and obedience. Also examined are topics related to attraction and interpersonal relationships. Includes the application of the scientific method and research strategies in social psychology. **Recommended:** SOCI B1 or PSYC B1a, Reading Level 5 or 6, English Level 5. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:**

UC, CSU and private colleges. **Note:** Not open to students who have taken the equivalent course, SOCI B20. IGETC 4.

### PSYC B21abcd Special Projects (1-1-1-1 units)

Psychological research assistant and/or tutor. Work primarily on research projects or in a tutorial relationship with students enrolled in a course which the enrollee has completed with a high level of mastery. **Recommended:** PSYC B1a with a grade of "B" and completion of the course in which student will be assisting with a grade of "B." Students interested in research should have completed or be currently enrolled in PSYC B5. **Hours:** 54 by arrangement for each unit. Repeat 3, or until a maximum of 4 units is reached. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges.

### PSYC B30 Human Sexuality (3 units)

Basic knowledge of the human sexual system, the sexual act, today's sexual attitudes and behavior, gender identity issues, sexual health, sexual orientation, sexual problems and their treatment, sexual communication, and the legal and ethical aspects of sexuality. **Recommended:** Reading Level 5 or 6, English Level 5. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. CSU GE E.

### PSYC B33 Personal and Social Adjustment (3 units)

Theories and dynamics of normal and abnormal personality development. The study of frustration, threat, and conflict, and the reactions to stress through defense mechanisms and coping behavior. Failures of adjustment in the form of neurosis, psychosis, psychosomatic disorders, and character disorders are studied, and consideration is given to the basic methods of psychotherapy and behavior therapy. **Recommended:** PSYC B1a, Reading Level 5 or 6, English Level 5. **Hours:** 54 lect. **Offered:** F. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. CSU GE E.

### PSYC B40 Child Psychology and Development (3 units)

Studies the growth and development of children. Emphasizes intellectual and personality development as well as the

handling of behavior problems through guidance and discipline. **Recommended:** PSYC B1a, Reading Level 5 or 6, English Level 5. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. IGETC 4.

### PSYC B45 Behavior Modification (3 units)

Introduces students to the basic theories and principles of learning derived from empirical research on both human and nonhuman subjects. Emphasis will be placed on the application of operant and classical principles to behavioral change. **Recommended:** PSYC B1a, Reading Level 5 or 6, English Level 5. **Hours:** 54 lect. **Offered:** S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. **Note:** elective credit only. BC GE D.1.

## RADIOLOGIC TECHNOLOGY

### RADT B1a Introduction to Radiologic Technology (2 units)

Orientation to the duties and responsibilities of the Radiologic Technologist. Emphasizes the medical use of radiation, interpersonal communication, ethics, radiation safety and protection, foundations and futures of medicine and radiology, hospital and departmental operations, professional development and quality assurance. Assistance in understanding program requirements. **Prerequisite:** Acceptance in the Radiologic Technology Program. **Hours:** 36 lect. **Offered:** SS. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### RADT B1b Patient Care (2 units)

Introduction to the basic concepts of patient care in the field of radiography. Instruction and demonstration in aseptic and non-aseptic techniques, infection control, body mechanics, transfer and immobilization techniques, vital signs, oxygen therapy administration, medical emergencies, and contrast media. **Prerequisite:** Acceptance into the Radiologic Technology Program. **Hours:** 36 lect. **Offered:** SS. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### RADT B2a Radiographic Anatomy and Positioning 1 (3 units)

Instruction and laboratory practice in radiographic positioning of the chest, basic KUB, lower and upper extremities, arthrography, bone surveys and bone densitometry with correlated film anatomy. **Prerequisites:** Completion of first summer session of Radiologic Technology Program. **Hours:** 36 lect, 54 lab. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### RADT B2b Radiographic Anatomy and Positioning 2 (3 units)

Instruction and laboratory practice in radiographic positioning of the vertebral column, bony thorax, gastrointestinal, biliary and urinary systems with correlated film anatomy. **Prerequisites:** Completion of second semester of Radiologic Technology Program. **Hours:** 36 lect, 54 lab. **Offered:** S.

CCS: Occupational Education. **Transferable:** CSU and private colleges.

### **RADT B2c Radiographic Anatomy and Positioning 3 (3 units)**

Instruction and laboratory practical experience in the skull, reproductive system, mammography, and related pediatric and geriatric exams, with correlated film anatomy. **Prerequisites:** Completion of second summer session of Radiologic Technology Program. **Hours:** 36 lect, 54 lab. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **RADT B3a Radiographic Principles 1 (3 units)**

Principles of x-ray image creation, basic radiation protection, exposure factors, beam restriction and radiation absorption. Covers accessory supplies and equipment, grids, image receptors, image processing, sensitometry and digital radiography. **Prerequisites:** Completion of first summer session of Radiologic Technology Program. **Hours:** 36 lect, 54 lab. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **RADT B3b Radiographic Principles 2 (3 units)**

Principles of radiographic image analysis including density, contrast recorded detail, distortion and quality management. Principles of automatic exposure control, mobile radiography, tomography, and fluoroscopy. **Prerequisites:** Completion of first fall semester of Radiologic Technology Program. **Hours:** 36 lect, 54 lab. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **RADT B4a Introduction to Clinical Education (1.5 units)**

Orientation to clinical education including introduction to patient transportation techniques, image processing, patient registration and file room, equipment orientation and safety training. Observation and introduction to basic radiographic procedures stressing radiation safety and protection. **Prerequisites:** Acceptance into the radiologic technology program. **Hours:** 94 clinical. **Offered:** SS. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **RADT B4b Clinical Education I (4 units)**

Supervised clinical experiences are provided to develop skills in basic radiographic procedures. Fundamentals of anatomy, positioning and technical factors of film quality, radiation safety and protection. **Prerequisite:** Completion of first summer session of Radiologic Technology Program. **Hours:** 256 clinical experience. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **RADT B5 Radiation Physics (3 units)**

Fundamentals of physics of radiologic quantities and units, the atom, electromagnetic radiation, electricity and magnetism, x-ray equipment and tube, x-ray production, filtration, x-ray interaction with matter and radiation protection. **Prerequisite:** Enrollment in Radiologic Technology Program. **Hours:** 90 lect/

lab. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **RADT B6 Clinical Education 2 (4 units)**

Supervised clinical experiences are provided to perfect skills in a variety of basic radiographic procedures. Case studies of radiographic procedures discussing anatomy, pathology, positioning and technical factors of image quality are analyzed on a case-by-case basis. **Prerequisite:** Completion of first semester of Radiologic Technology Program. **Hours:** 256 clinical experience including film critique. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **RADT B7 Clinical Education 3 (6.5 units)**

Supervised clinical experiences are provided to perfect skills in a variety of radiographic procedures. Case studies of radiographic procedures discussing the fundamentals of anatomy, positioning and technical factors of film quality are analyzed on a case-by-case basis. Extension of radiographic procedures demonstrated in RADT B2a, B2b. **Prerequisite:** Completion of second semester of Radiologic Technology Program. **Hours:** 18 lect, 382 clinic. **Offered:** SS. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **RADT B9a Sectional Anatomy for Medical Imaging (3 units)**

Sectional anatomy of the head and neck, spine, thorax, abdomen and pelvis. Emphasis on computed tomography and magnetic resonance images and other imaging modalities using sectional anatomy. **Prerequisite:** Current enrollment in the Radiologic Technology Program or evaluation of student's imaging skills. **Hours:** 54 lect. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **RADT B9c Principles of Angiography (1 unit)**

Introduction to the principles of cardiac, pulmonary, systemic and lymphatic angiography with radiographic film correlation of anatomy. Cinefluorographic equipment and procedures are discussed. Review of angiographic trends including interventional procedures. **Prerequisite:** Concurrent enrollment in the Radiologic Technology Program or evaluation of student's x-ray skills. **Hours:** 18 lect. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

### **RADT B10 Clinical Education 4 (6.5 units)**

Supervised clinical experiences are provided in advanced radiographic and fluoroscopic procedures. Case studies of radiographic procedures discussing anatomy, pathology, positioning and technical factors of image quality are analyzed on a case-by-case basis. Correlated with RADT B2c. **Prerequisite:** Completion of second summer session of Radiologic Technology Program. **Hours:** 384 lect/clinic hours including film critique. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**RADT B11 Radiographic Pathology (2 units)**

Pathology and medical terminology pertinent to diagnostic medical imaging. Nature, causes, manifestations and treatment of disease. Imaging procedures utilized when making diagnosis. **Prerequisites:** Completion of second fall semester of Radiologic Technology Program. **Hours:** 36 lect. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**RADT B12 Radiobiology and Radiation Protection (2 units)**

Fundamental concepts of radiobiology including biological effects on living cells and organ systems, radiation quantities and units, radiation monitoring, ALARA concepts and radiation protection for occupational and non-occupational populations. Review of current related California and Federal health and safety codes. **Prerequisite:** Current enrollment in Radiologic Technology Program. **Hours:** 36 lect. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**RADT B13 Clinical Education 5 (8 units)**

Supervised clinical experiences are provided to perfect skills in advanced radiographic procedures. Designed to prepare the student for program completion and certification examinations. **Prerequisite:** Completion of third semester of Radiologic Technology Program. **Hours:** 464 clinical experience. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**RADT B30 Principles of Venipuncture (1 unit)**

Basic instruction and practice of venipuncture methods/procedures for the administration of contrast agents. Routes of administration, safety, basic pharmacology, dosage calculations and emergency procedures. Course meets California Health and Safety Code, Section 106985, pertaining to Certified Radiologic Technologists performing venipuncture. **Prerequisite:** Current Cardiopulmonary Resuscitation Healthcare Provider Card. **Hours:** 18 lect. **Offered:** F, S, SS. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**RADT B50 Principles of Fluoroscopy (2 units)**

Principles and techniques of fluoroscopy equipment, image intensifiers, television, image recording, devices and mobile fluoroscopy. Anatomy and physiology of the eye, three dimensional and radiologic anatomy. Fluoroscopy regulations, radiation safety and quality control. Upon successful completion of this course, the student will be eligible to apply for the State of California Fluoroscopy permit. **Prerequisite:** Hold or be eligible as a Certified Radiologic Technologist (CRT) in Diagnostic or Therapeutic Radiology within the State of California. **Hours:** 45 lect, 18 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**REAL ESTATE**

*See Business Administration*

**REGISTERED NURSING**

*See Nursing*

**RUSSIAN****RUSS B1ab Elementary Russian (5 units)**

B1a-B1b (2.5-2.5) equivalent to B1ab.

Introduction to the Russian language including the Cyrillic alphabet, grammar, and culture through audio, print, and cultural realia. This course covers speaking, reading, writing, listening, and the culture of Russia. **Prerequisite:** B1b: RUSS B1a. **Recommended:** Reading Level 5 or 6. **Hours:** B1a: 54 lect; B1b: 54 lect; B1ab 90 lect. **Offered:** F, S. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 6.

**SOCIOLOGY**

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

**SOCI B1 Introduction to Sociology (3 units)**

Concentration of sociology emphasizing the scientific study of human behavior. Includes the study of social groups; culture; socialization processes; social deviance; social stratification; ageism; sexism, racism; ethnicity; social inequality; demography; urbanization; collective behavior; family, religious, educational, economic and political institutions; and social change. **Recommended:** Reading Level 5 or 6, English Level 5. **Hours:** 54 lect. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE D.1; CSU GE D.0; IGETC 4.

**SOCI B2 Problems of Modern Society (3 units)**

Studies the social problems of modern society, especially in the United States, in order to arrive at alternate methods of identification and measurement of social problems. An attempt to gain understanding by judging the probable results of proposed changes. Problems include deviant behavior, including crime and delinquency, alcoholism, family violence, deviant subcultures, problems of man in industrial society, including the industrial workers and white collar workers and also stress and mental illness. **Recommended:** Introductory course in Sociology or Psychology, or Cultural Anthropology, Reading Level 5 or 6, English Level 5. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. IGETC 4.

**SOCI B10 Topics in Sociology (0.5-3 units. Limit 9 units)**

Selected topics in sociology which coincide with current student interests, special guest speakers, recent developments within the field, or events and trends of importance at the community, national or global levels.

**Recommended:** Reading Level 5 or 6, English Level 5.

**Hours:** 9 lect for each 0.5 unit. **Repeat:** 3 or until a maximum of 9 units is reached. **CCS:** Liberal Arts & Sciences.

**Transferable:** CSU and private colleges.

**SOCI B20 Social Psychology (3 units)**

Examines the theory and research concerning the effects of social influences on individual behavior. Topics include, but are not limited to, the social self, self preservation, attitude information and change, prosocial behavior, attribution and people perception, aggression, prejudice, compliance, conformity, and obedience. Also examined are topics related to attraction and interpersonal relationships. Includes the application of the scientific method and research strategies in social psychology. **Recommended:** SOCI B1 or PSYC B1a, Reading Level 5 or 6, English Level 5. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. **Note:** Not open to students who have taken the equivalent course, PSYC B20. IGETC 4.

**SOCI B21abcd Special Projects (1-1-1-1 units)**

Sociological research assistant and/or tutor, Work primarily on research projects or in a tutorial relationship with students enrolled in a course which the enrollee has completed with a high level of mastery. **Recommended:** SOCI B1 with a grade of "B" and completion of the course in which student will be assisting with a grade of "B." Students interested in research should have completed or be currently enrolled in PSYC B5. **Hours:** 54 lab by arrangement. **Repeat:** 3, or until a maximum of 4 units is reached. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges.

**SOCI B28 Women in the World (3 units)**

Study of women's role in the different parts of the world examining past activities and contributions of women in different societies. Attempts to gain understanding of changes and impact upon women's roles due to their cultural backgrounds. Societies include Israel, India, the United States, Europe, Africa, and Latin America. **Recommended:** Reading Level 5 or 6, English Level 5. **Hours:** 54 lect/disc. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. CSU GE D.3, D.4, D.0, E; IGETC 4.

**SOCI B36 Sociology of the Chicano (3 units)**

A survey of the socioeconomic characteristics of the Chicano community in the United States. Emphasizes the inter-relationships of Chicanos and society including the process of assimilation, minority status, and Chicano culture. **Recommended:** Reading Level 5 or 6, English Level 5. **Hours:** 54 lect. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. **Note:** Not open to students who have taken the equivalent course, CHST B36. CSU GE D.3, D.0; IGETC 4.

**SOCI B45 Minority Relations (3 units)**

An examination of the relationships among dominant and minority groups, the nature of prejudice and patterns of discrimination; the role of immigration in the creation of minority status; the role of religious difference in a pluralistic society; the relationship of minority status to economic standing; consideration of American Indians, black Americans, Chicanos, Chinese Americans, Japanese Americans, other Asian Americans, and Jewish Americans; consideration of women as

an oppressed majority sharing characteristics with minorities; international problems of race, ethnicity, and poverty.

**Recommended:** SOCI B1, Reading Level 5 or 6, English Level 5. **Hours:** 54 lect. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. **Note:** Not open to students who have taken the equivalent course, HMSV B45. BC GE D.1; CSU GE D.3, D.0; IGETC 4.

**SOIL**

*See Agriculture*

**SONOGRAPHY****SONO B50 Ultrasound Physics and Instrumentation (3 units)**

Basic principles of ultrasound physics and machine operation. This course includes the following: physics of sound, propagation of sound in tissue, transducers, Doppler principles, beam formation, transmission and modification, artifacts, biologic effects of ultrasound and quality assurance methods. Image acquisition, processing and storage will also be covered. Laboratory sessions with practice on tissue equivalent ultrasound phantoms. **Recommended:** MATH BD/B200D, BIOL B18, MEDS B60. **Hours:** 45 lect, 9 lab. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**SPANISH****SPAN B1ab Elementary Spanish (5 units)**

B1a-B1b (2.5-2.5) equivalent to B1ab.

Introduction to the Spanish language and culture by means of a program that involves video, audio, and print media into an integrated method of "planned immersion." Emphasis is on the development of all four language skills (listening, reading, speaking and writing) within a communicative approach.

**Prerequisite:** SPAN B1b; SPAN B1a. **Recommended:** Reading Level 5 or 6. **Hours:** SPAN B1a: 45 lect; SPAN B1b: 45 lect; SPAN B1ab: 90 lect. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 6.

**SPAN B2ab Elementary Spanish (5 units)**

B2a-B2b (2.5-2.5) equivalent to B2ab. Continued study of Spanish language and outline using the 'planned immersion' approach begun in SPAN B1ab. Listening comprehension continues to be emphasized along with the development of oral production and writing. **Hours:** B2a: 54 lect; B2b: 54 lect; B2ab 90 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 3.B, 6.

**SPAN B3 Intermediate Spanish (4 units)**

Reading selections of Spanish and Latin American authors including essays, short stories, plays and poetry with the purpose of nourishing an understanding of the Spanish culture and language. Intensive grammar review of the Spanish language. **Hours:** 72 lect. **Offered:** F, S. **CCS:** Liberal Arts &

Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 3.B, 6.

### SPAN B4 Intermediate Spanish (4 units)

Continued advanced readings from Spanish and Latin American authors, and continue intensive grammar review of the Spanish language preparing students for upper division work in literature and language. **Prerequisite:** SPAN B3. **Hours:** 72 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 3.B, 6.

### SPAN B10 Spanish for Native Speakers (4 units)

An intermediate course, equivalent to SPAN B4 in content, designed to fulfill the particular needs of bilingual students with special emphasis on the grammar of the language as well as the development of reading and writing. Special attention will be given to correct pronunciation. **Recommended:** Native speaker or equivalent. **Hours:** 72 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.2; IGETC 6.

### SPAN B52a-B52b Elementary Conversational Spanish (2-2 units)

Designed for those who wish to develop a basic understanding of conversational Spanish. Emphasizes pronunciation, correct usage and common idiomatic speech.

**Prerequisite:** B52b: SPAN B52a or equivalent. **Hours:** 54 lect for each 2 unit course. **Repeat:** 1. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Not Transferable:** Not degree applicable.

## SPECIAL STUDIES

### SPST B48 Special Studies: Honors (0.5-2 units. Limit 4 units)

Study and projects planned to provide an enriched academic experience for students not being served in regularly scheduled courses. It is planned to meet the needs of superior students whose background and interests indicate that they could profit from study and projects in a subject area. The course will be designated according to the subject fields studies, i.e. Special Studies/German. **Hours:** 9 lect/disc for each 0.5 unit. Field trips may be required. **Repeat:** 1 or until a limit of 4 units is reached. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges.

### SPST B49 Special Studies: Honors (.5-2 units. Limit 4 units)

Seminars and /or individual conferences by arrangement. Independent, individual study planned to provide an enriched academic experience for students not being served in regularly scheduled courses. Meets the needs of superior students whose background and interests indicate that they could profit from individual study in a subject area. The course will be designated according to the subject field studies, i.e. Special Studies/German. **Hours:** 24 arranged for each 0.5 unit. Field trips may be required. **Repeat:** 1 or until a limit of 4 units is reached.

**CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

### SPST B49L Special Studies Lab: Honors (1-2 units. Limit 4 units)

Seminars and/or individual conferences by arrangement. Independent, individual study planned to provide an enriched academic experience for students not being served in regularly scheduled courses. It is planned to meet the needs of superior students whose background and interests indicate that they could profit from individual study in a subject area. The course will be designated according to the subject field of studies, i.e. Special Studies/German. **Hours:** 54-108 lab by arrangement. Field trips may be required. **Repeat:** 1 or until a limit of 4 units is reached. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

### SPST B201 Special Projects and Studies (1-3 units. Limit 6 units)

Special projects of studies in an area not being served by regularly scheduled courses. The student is required to meet periodically with faculty advisor and/or department chair to review progress in the study program. **Hours:** 18-54 by arrangement. Field trips may be required. **Repeat:** 3, or until 6 units are reached. **CCS:** Liberal Arts & Sciences. **Not Transferable:** Not degree applicable.

### SPST B201L Special Projects and Studies (1-3 units. Limit 6 units)

Special projects of studies in an area not being served by regularly scheduled courses. The student is required to meet periodically with faculty advisor and/or department chair to review progress in the study program. **Hours:** 54-162 by arrangement. Field trips may be required. **Repeat:** 3, or until 6 units are reached. **CCS:** Liberal Arts & Sciences. **Not Transferable:** Not degree applicable.

### SPST B210 Independent Reading Program (1-2 units. Limit 2 units)

Independent reading of books in the social sciences, physical sciences and humanities under Library staff supervision. **Recommended:** Reading Level 5 or 6. **Hours:** 54-108 lab by arrangement. **Repeat:** 1. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

## SPEECH

*See Communication*

## STUDENT DEVELOPMENT

### STDV B1 Educational Planning (0.5 unit)

Designed to assist students in understanding college requirements and to help them in making educational plans. Satisfies the 0.5 unit educational planning requirement for graduation from Bakersfield College. **Recommended:** Reading Level 5 or 6. **Hours:** 9 lect/disc. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

Elective credit only. Note: Not open to students who have taken the equivalent course, STDV B201.

### **STDV B2 Career Decision Making and Educational Planning (1.5 units)**

An introduction to career search and strategies. Provides an overview of the career decision-making process including goal setting, decision making and researching the job market. Satisfies the 0.5 unit educational planning requirement for graduation from Bakersfield College. **Recommended:** Reading Level 5 or 6. **Hours:** 27 lect/disc. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

Elective credit only. Note: Not open to students who have taken the equivalent course, STDV B202.

### **STDV B3 Career, Life, and Educational Planning (3 units)**

Assists students in choosing a career, selecting a major, and developing life and educational plans. Includes a successful career decision making process and provides an introduction to job search strategies and resume writing. Through assessments and exercises the student will become more aware of interests, values, skills and personal characteristics in order to set and achieve career, life and educational goals. Satisfies the 0.5 unit educational planning requirement for graduation from Bakersfield College. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. Elective credit only. CSU GE E.

### **STDV B4 International Student Orientation and Educational Planning (1 unit)**

Designed to give international students a practical training in studying effectively, the techniques for survival within the college setting, cultural adjustment cycle, immigration regulations and making their educational plan for college studies. Satisfies 0.5 unit educational planning requirement for graduation from Bakersfield College. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect/disc. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. Elective credit only.

### **STDV B6 Tools for College Survival (2 units)**

Increasing the probability of student success in college by helping students obtain skills necessary to reach their educational objective. Provides the opportunity to learn and adapt skills proven to promote success in college, including study skills and personal life skills. Satisfies 0.5 unit educational planning requirement for graduation from Bakersfield College. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. Elective credit only. Note: Not open to students who have taken the equivalent course, STDV B206.

### **STDV B51 Job Search Strategies (1 unit)**

Assisting students with job search skills. Guidance through the job search process including strategies for skills identification, marketing techniques, resume writing and cover letters, job search strategies, and interviewing skills. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect/disc. **CCS:** Liberal Arts & Sciences. **Not Transferable:** Associate Degree only.

### **STDV B55a Strategies for College Success (1 unit)**

Strategies to assist students to be successful in their college careers. To enhance their probability of success, students will learn communication skills, stress reduction, self-esteem education, goal achievement, problem solving, and the ability to focus their energy and think positively about school. **Hours:** 18 lect/disc. **Repeat:** 3. **Offered:** F, S. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

### **STDV B60 Access and Advocacy (3 units)**

Students with disabilities develop skills to manage their disabilities and identify their legal rights and responsibilities, functional limitations, mitigating measures, academic and job accommodations, available support and resources, and how to handle disputes. **Recommended:** Reading Level 4; English Level 4. **Hours:** 54 lect/disc. **Offered:** F, S, SS. **Repeat:** 1. **CCS:** Liberal Arts and Sciences. **Not Transferable:** Associate Degree only.

### **STDV B74m A Positive Attitude Towards Math (0.5 units)**

Designed for students who have an inhibiting fear which precludes their success in the study of mathematics, this course explores attitudes towards mathematics through journal writing and class discussion; teaches problem-solving approaches using both the right and left brain, and assists students in reducing their level of math anxiety. **Hours:** 9 lect. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

### **STDV B201 Educational Planning (0.5 unit)**

Designed to assist students in understanding college requirements and to help them in making educational plans. Satisfies the 0.5 unit educational planning requirement for graduation from Bakersfield College. **Recommended:** Reading Level 5 or 6. **Recommended:** Reading Level 5 or 6. **Hours:** 9 arranged. Open entry/open exit. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. Elective credit only. Note: Not open to students who have taken the equivalent course, STDV B1.

### **STDV B202 Career Decision Making and Educational Planning (1.5 units)**

An introduction to career search and strategies. Provides an overview of the career decision-making process including goal setting, decision making and researching the job market. Satisfies the 0.5 unit educational planning requirement for graduation from Bakersfield College. **Recommended:** Reading Level 5 or 6. **Hours:** 27 arranged. Open entry/open exit. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:**

CSU and private colleges. Elective credit only. Note: Not open to students who have taken the equivalent course, STDV B2.

### **STDV B206 Tools for College Survival (2 units)**

Increasing the probability of student success in college by helping students obtain skills necessary to reach their educational objective. Provides the opportunity to learn and adapt skills proven to promote success in college, including study skills and personal life skills. Satisfies 0.5 unit educational planning requirement for graduation from Bakersfield College. **Recommended:** Reading Level 5 or 6. **Hours:** 36 arranged. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. Elective credit only. Not open to students who have taken the equivalent course, STDV B6.

## **TECHNICAL MATHEMATICS**

### **TECM B52 Introduction to Technical Mathematics (3 units)**

Elementary course in mathematics intended primarily for technology majors covering arithmetic processes, ratio, proportion, elementary algebra, geometric forms and construction, and elementary trigonometry. **Hours:** 54 lect. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

## **THEATRE ARTS**

*Credit limitations may apply. For specific information, see a counselor or the transfer institution.*

### **THEA B1 Introduction to Acting (3 units)**

Designed for non-majors. Emphasizes mastery of self as the key to creative process of communication and performance through improvisation, theatre games, concentration, pantomime, etc. Recommended for those interested in performing arts, personal arts or in personal development. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.1.

### **THEA B2ab Elements of Acting (3-3 units)**

Provides understanding of self as creator and medium of acting. Develops fundamental knowledge of such elements of acting as pantomime, vocalization, improvisation, relaxation-concentration, sense memory, etc. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect for each 3 unit course. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.1.

### **THEA B4 Introduction to Stagecraft (3 units)**

Basic set construction, scenic paint, scenic painting, stage properties, 3-D scenery, special effects, lighting and sound. **Recommended:** Concurrent enrollment in 1 unit of THEA B28, Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.1.

### **THEA B6 Introduction to Stage Make-up (3 units)**

Covers character analysis, facial anatomy, old age make-up, 3-dimensional make-up, rubber prosthesis, beards and mustaches, and non-realistic make-up. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.1.

### **THEA B7 Introduction to Stage Costume (3 units)**

Basic sewing techniques, pattern information, types of fabric, costume history and design. Practical approach through construction of costume pieces, costume renderings and participation on a wardrobe crew. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect, 72 lab. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges. BC GE C; CSU GE C.1.

### **THEA B12a Introduction to Shakespeare (3 units)**

Examination of Shakespeare's use of verse, scansion, imagery, developing style, and theatre. Emphasis is on the reading of four representative plays. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Repeat:** 3. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.1; IGETC 3.A.

### **THEA B20 A Survey of Theatre and the Roots of Entertainment (3 units)**

Designed for non-majors, this class introduces the student to the fundamental concepts and elements of theatre, drama and entertainment by exploring their origins, history, and functions in society as they are experienced and used by individuals. Much of the subject matter is introduced through entertaining in-class demonstrations and presentations. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.1; IGETC 3.A.

### **THEA B27 Acting Theatre Laboratory (1-3 units. Limit 12 units)**

The rehearsal and production of both main stage and experimental theatre dramas. Theatre activity for the beginner or expert in acting. **Prerequisite:** Audition. **Recommended:** Reading Level 5 or 6. **Hours:** 60 hours per unit. **Offered:** F, S. **Repeat:** 3 or until a limit of 12 units is reached in combination with THEA B227. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.1.

### **THEA B28 Technical Theatre Laboratory (1-3 units. Limit 12 units)**

Participation in set construction, lighting, make-up, costume, properties, or any other technical area of theatrical productions. **Recommended:** Reading Level 5 or 6. **Hours:** 54 hours for each unit. **Offered:** F, S. **Repeat:** 3 or until a limit of 12 units is reached in combination with THEA B228. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. BC GE C

**THEA B30 Film Focus (1 unit)**

Designed to focus the awareness and appreciation of the student upon a single type of film, i.e. work of a particular actor, director, theme, etc. Course will concentrate upon an in-depth examination of a very limited area of the art of film.

**Recommended:** Reading Level 5 or 6. **Hours:** 18 lect.

**Repeat:** 3. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges. **Note:** Elective credit only. BC GE C.

**THEA B31 Introduction to Film Studies (3 units)**

Designed to heighten the awareness and appreciation of the student to cinema from its beginning to the present. The critical viewing and discussion of film will provide the basis for the development of aesthetic appreciation. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect/disc. **Offered:** F. **Repeat:** 1. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.1; IGETC 3.A.

**THEA B32 Contemporary Film Studies (3 units)**

By viewing and discussing the films of a particular genre, such as the western or the comedy film, and then reading and writing about them, the student will develop an aesthetic appreciation of film genres. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** S. **Repeat:** 1. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.1; IGETC 3.A.

**THEA B35 Introduction to Theatre (1 unit)**

The study of and exposure to live theatrical performances will increase the appreciation and enjoyment of this often neglected area of the arts and humanities. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect. **Repeat:** 3. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. BC GE C; CSU GE C.1.

**THEA B227 Acting Theatre Laboratory (1-3 units. Limit 12 units)**

The rehearsal and production of both main stage and experimental theatre dramas. Theatre activity for the beginning or expert in acting. **Prerequisite:** Audition **Recommended:** Reading Level 5 or 6. **Hours:** 60 for each unit. Open entry/open exit. **Offered:** F, S. **Repeat:** 3 or until a limit of 12 units is reached in combination with THEA B27. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE C; CSU GE C.1.

**THEA B228 Technical Theatre Laboratory (1-3 units. Limit 12 units)**

Participation in set construction, lighting, make-up, costume, properties, or any other technical area of production. **Recommended:** Reading Level 5 or 6. **Hours:** 60 for each unit. Open entry/open exit. **Offered:** F, S. **Repeat:** 3 or until a limit of 12 units is reached in combination with THEA B28. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. BC GE C.

**VOCATIONAL ENGLISH AS A SECOND LANGUAGE****VESL B82 Beginning Vocational ESL (2 units)**

Beginning Vocational ESL multi-skill (reading, writing, listening, and speaking) course with a focus on vocabulary used in the agricultural workplace. Focuses on workplace oral communication, reading and writing tasks. **Prerequisite:** Placement based on the CASAS listening and reading pre-test. **Hours:** 64 lect. **CCS:** Precollegiate-Basic Skills. **Not Transferable:** Not degree applicable.

**VESL B83 Intermediate Vocational ESL (2 units)**

Intermediate vocational ESL multi-skill course with a focus on vocabulary used in the agricultural workplace. Focuses on workplace oral communication, reading and writing tasks. CASAS certification upon completion. **Prerequisite:** VESL B82 or placement based on the CASAS listening and reading pre-test. **Hours:** 64 lect. **CCS:** Precollegiate-Basic Skills. **Not Transferable:** Not degree applicable.

**VESL B84 High-Intermediate/Advanced Vocational ESL (2 units)**

High-intermediate/advanced vocational ESL multi-skill course with a focus on vocabulary used in the agricultural workplace. Focuses on workplace oral communication, reading and writing tasks incorporating CASAS content and competency areas, and meeting the SCANS guidelines. CASAS certification upon completion. **Prerequisite:** VESL B83 or ENSL B80 or placement based on the CASAS listening and reading pre-test. **Hours:** 64 lect. **CCS:** Precollegiate - Basic Skills. **Not Transferable:** Not degree applicable.

**VOCATIONAL NURSING**

*See Nursing, Vocational*

**WATER TECHNOLOGY****WTRT B51 Basic Water Treatment (3 units)**

Prepares the beginning level student for the lower level California Department of Health Services (CA/DHS) Water Treatment Operator Certification (grades 1 and 2) and to inform the interested public in the science and technology involved in the purification of drinking water. **Hours:** 54 lect. Field trips required. **Offered:** F. **CCS:** Occupational Education. **Not Transferable:** Associate degree only.

**WTRT B52 Basic Water Distribution (3 units)**

Prepares the beginning level student for the lower level CA/NV AWWA (grade 1) and/or CA/DHS (grades 1 and 2) Water Distribution Operator Certification and to inform the interested public in the science and technology involved in the purification of drinking water. **Hours:** 54 lect. Field trips required. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**WTRT B53 Water and Wastewater Analysis (3 units)**

Prepares the student to take California SWRCB, grades 1 and 2, Waste Water Operation exam. Covers environmental influences,

composition of natural water, analysis, interpretation of results and application to treatment problems. **Recommended:** High School CHEM or job related experience, Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate degree only.

### WTRT B61 Advanced Water Treatment (3 units)

Prepares the advanced level student for upper level California Department of Health Services (CA/DHS) Water Treatment Operator Certification (grades 3 through 5) and to inform the interested public in the science and technology involved in the purification of drinking water. **Prerequisite:** Completion of Basic H2O treatment or comparable course. **Hours:** 54 lect. Field trips required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### WTRT B62 Advanced Water Distribution (3 units)

Prepares the advanced level student for upper level CA/NV AWWA (grades 2 through 4) and/or CA/DHS (grades 3 through 5) Water Distribution Operator Certification and to inform the interested public in the science and technology involved in the distribution of drinking water. **Prerequisite:** Must have completed a basic water distribution course acceptable to Bakersfield College or the instructor, with a minimum of 36 hours. **Hours:** 54 lect. Field trips required. **CCS:** Occupational Education. **Not Transferable:** Associate degree only.

## WELDING

### WELD B1a Introduction to Oxygen Acetylene Welding and Cutting (1.5 units)

Properties and characteristics of metals. Safety, theory, and practical experience in oxy-acetylene welding, cutting, and joint design, codes and weld testing. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect, 27 lab. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

### WELD B1b Introduction to the Welding Processes (1.5 units)

Properties and characteristics of metals and a survey of metal welding processes. Safety, theory, and practical experience in shielded metal arc, PAC, MIG, TIG, FCAW, Shear & Brake, joint design, codes and weld testing. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect, 27 lab. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

### WELD B53a-B53b Shielded Metal Arc Welding (1.5-1.5 units)

Basic arc welding theory and manipulative skills related to the shielded metal arc welding process, including welding in all positions with various electrodes. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect, 36 lab for each 1.5 unit course.. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### WELD B54a Blueprint Reading for Welders and Machinists (3 units)

Principles of blueprint reading as applied to the welding and machine trades. Emphasis will be placed on the ability to visualize and interpret working drawings. Welding symbols and basic shop math are also included. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### WELD B54b Template Development and Layout for the Welder (3 units)

Technical skills and critical thinking in layout techniques including layout situations, mathematical and pipe fitting terminology used in the industry. **Recommended:** WELD B54a, Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** S. **Repeat:** 1. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### WELD B55a-B55b Structural Plate Certification (1.5-1.5 units)

Safety, introduction to welding codes, welding discontinuities and practical welding. Experience on plate with shielded metal arc welding, based on the American Welding Society DI.1 structural code. **Recommended:** WELD B53b or three years work experience as a welder. **Hours:** 18 lect, 36 lab for each 1.5 unit course. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### WELD B55c-B55d ASME Pipe Certification (1.5-1.5 units)

Weld, safety, welding pipe in the 1G, 2G and 5G positions. An examination of the ASME Welding Code will also be covered. **Prerequisites:** WELD B55a with a grade of "C." **Recommended:** Reading Level 5 or 6. **Hours:** (54-54) 1 lect, 2 lab. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### WELD B55e-B55f API and Related Certification Testing (1.5-1.5 units)

Welding safety, and welding pipe in the 6G position, pipe layout and the API 1104 pipe welding code will also be covered. **Prerequisites:** WELD B55c-B55d with a grade of "C." **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect, 36 lab for each 1.5 unit course. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

### WELD B65ab Welded Steel Structures (1.5-1.5 units)

Introduction to welded metal fabrication. Safety related to welding and fabrication tools and equipment. Emphasizes layout, cutting, shaping, forming and welding structures together. Calculating material and labor costs will be covered as well. **Recommended:** Reading Level 5 or 6. Previous class or experience in oxy-fuel cutting, shielded metal arc welding, and gas metal arc welding is also recommended. **Hours:** 18-18 lect, 36-36 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**WELD B74a Introduction to GMAW (Gas Metal Arc Welding) and FCAW (Flux Core Arc Welding) (1.5 units)**

Theory and application of GMAW & FCAW welding processes. Emphasizes safe and proper operation of these welding processes while welding on mild steel. **Recommended:** WELD B1b or WELD B53a or one year work experience as a welder, Reading Level 5 or 6. **Hours:** 18 lect, 36 lab. **Repeat:** 1. **Offered:** F. **Repeat:** 1. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**WELD B74b Introduction to GTAW (Gas Tungsten Arc Welding) (1.5 units)**

Theory and application of GTAW welding process. Emphasizes safe and proper operation of this welding process while welding on mild steel, aluminum, and stainless steel. **Recommended:** WELD B1a or WELD B53a or one year work experience as a welder. Reading Level 5 or 6. **Hours:** 18 lect, 36 lab. **Offered:** F. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**WELD B90 General Welding (6 units)**

Entry-level welding skill development in modern welding and cutting processes, theory and practice. **Hours:** 48 lect, 144 lab. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**WOOD**

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

**WOOD B1 Introduction to Woodworking Technologies (3 units)**

Basic woodworking processes and materials, use and care of hand tools, limited machine use, wood finishing, lathe turning, lamination, woodcarving, and other specialized areas of woodworking. Students will create a scope of work for each 8-week area of endeavor. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect, 54 lab. **Offered:** F, S. **Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**WOOD B2 Furniture and Cabinetmaking (3 units)**

Skill development on the use and care of portable and stationary woodworking machines. The use of basic wood joint techniques, surface preparation, gluing, clamping and assembly is emphasized. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect, 72 lab. **Offered:** F, S. **Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

**WOOD B5 Intermediate Cabinetmaking (3 units)**

Machine woodworking for students with prior basic knowledge of woodworking machines and basic construction and assembly techniques. Emphasizes cabinet construction for industry, styles and designs, materials and handling, and basic estimating skills. **Recommended:** WOOD B2 or evaluation by instructor of student's cabinetmaking skills. **Hours:** 36 lect, 72 lab. Field trips required. **Offered:** S. **Repeat:** 1. **CCS:** Occupational

Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

**WOOD B65a Advanced Cabinetmaking (3 units)**

Machine woodworking emphasizing new designs including modular as well as European cabinet construction, new materials and processes, Kortron, malamine, high density particle board, as well as others. Advanced bidding techniques are discussed. **Prerequisite:** WOOD B5 or evaluation by instructor of student's cabinetmaking skills. **Hours:** 36 lect, 72 lab. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**WOOD B65b Advanced Cabinetmaking (3 units)**

Machine and hand techniques necessary for top-end construction emphasized. Non-residential type cabinets studied. Economical use of solid lumbers will be shown. Architecture millwork such as frame and panel wainscoat, bookcases, desks, bars, doors, skylights and windows demonstrated. Also included are commercial applications such as store fixtures, counters and reception desks. **Prerequisite:** WOOD B65a or evaluation by instructor of student's cabinetmaking skills. **Hours:** 36 lect, 72 lab. Field trips required. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**WORK EXPERIENCE**

*Credit limitations may apply. For specific information see a counselor or the transfer institution.*

**WEXP B248 Cooperative Work Experience Education (1-8 units. Limit 16 units)**

College credit for learning experiences obtained on the job in accordance with a training plan developed cooperatively between the employer, college, and student. **Prerequisites:** Declared major or occupational goal and evaluation of student's qualifications and objectives. **Hours:** 75 hours per semester unit at a paid job; 60 hours per semester unit at a non-paid job. **Offered:** F, S, SS. **Repeat:** 3. Limit of 16 units. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**WEXP B249 Cooperative Work Experience Education (1-4 units. Limit 16 units)**

College credit for learning experiences obtained on the job in accordance with a training plan developed cooperatively between the employer, college and student. **Prerequisites:** Declared major or occupational goal, concurrent enrollment in seven or more units (including CWEE units, except summer school) and evaluation of student's qualifications and objectives. **Hours:** 75 hours per semester unit at a paid job; 60 hours per semester unit at a non-paid job. **Offered:** F, S, SS. **Repeat:** 3. Limit of 16 units. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

**WEXP B250 General Work Experience Education****(1-3 units. Limit 6 units)**

Offers students an opportunity to combine a planned occupational program with progressive on-the-job experience (OJT) and practical learning experience in the world of work. **Prerequisites:** (a) pursue a planned work experience program, (b) concurrent enrollment in seven or more units (including GWE units) except summer school, (c) evaluation of student's planned work experience program, qualifications and objectives. **Hours:** 75 hours per semester unit at a paid job; 60 hours per semester unit at a non-paid job. **Repeat: 3 or until a limit of 6 units is reached. Offered: F, S, SS. CCS:** Occupational Education. **Not Transferable:** Associate Degree only.