

Course Descriptions



COURSE DESCRIPTIONS

The following abbreviations are commonly used in the course descriptions: lect lecture; lab laboratory; demo demonstration; Repeat repeatability (see policy on course repetition); CCS Course Classification System; CAN California Articulation Number; 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.

English, Reading, and Mathematics Classifications

Baccalaureate-level classes generally recommend Level 5 or 6 classification in reading, Level 5 classification in English, and/or mathematics as appropriate. Students with a reading level of 5 may enroll in baccalaureate-level classes if Level 6 is not a prerequisite. Students with a reading level of 3 or 4 are not eligible for baccalaureate classes having a Level 5 or 6 prerequisite. Placement in Level 6, 5, 4, or 3 is based on student's performance on the placement assessment (ASSET).

Note: English levels equate to Level 6 eligible for ENGL B1a, Level 5 eligible for ENGL B1, Level 4 eligible for ENGL B60, Level 3 eligible for ACDV B68. Reading levels equating to Level 5 and 6 meet the BC graduation competency requirements, Level 4 eligible for ACDV B50, Level 3 eligible for ACDV B62, Level 2 eligible for ACDV B91, and Level 1 referral for additional testing. Math levels equate to Level 6 eligible for Math B6a; Level 5 eligible for Math B1; Level 4 eligible for Math BC, B2, B16, B22, or B23; Level 3 eligible for Math BD; Level 2 eligible for Math BA; and Level 1 eligible for Math B50. Beginning in Summer 1998, eligibility levels were reversed so that 6 became highest and 1 lowest.

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 BC students commonly transfer. Sometimes these courses are technical in nature and might even be offered in the upper division or graduate level at four-year schools. These courses are transferable but not articulated. They will be accepted for elective baccalaureate credit but do not satisfy a specific course equivalent.

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 (0.5 unit)

Essential human relations skills and methods of effective tutoring, placing these skills into practice with tutees referred

by the Tutor Coordinator. Students may be referred by subject area instructor(s). **Prerequisite:** Minimum grade of 'B' in the subject to be tutored or approval of subject area instructor and successful completion of specific training in tutoring methods or evaluation of prerequisite by the Tutor Trainer and/or Tutor Coordinator. **Recommended:** Reading Level 6. **Hours:** 9 lect/disc, 27 supervised tutoring. **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 (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. **Hours:** 54 lect. **Offered:** F, S, SS. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

ACDV B52 Basic Tools for College Success (3 units)

An opportunity for students to learn and adopt skills proven to promote success in college, including study skills and personal life skills. Increases the Level 3 reader's probability of success in college. **Recommended:** Reading Level 3. **Hours:** 54 lect. **Offered:** F, S. **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 of thinking. **Prerequisite:** Reading Level 3 or ENSL B51 with a minimum grade of "C" or ACDV B91 with a minimum grade of "C." **Recommended:** Concurrent enrollment in ACDV B201a and/or ACDV B68. **Hours:** 54 lect. **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. **Prerequisite:** Concurrent enrollment in ACDV B280 or B281. See instructor to determine which co-requisite course is appropriate. **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 usage. **Recommended:** Reading Level 3, English Level 3, ACDV B52, B201b, B91, bilingual/bi-cultural students should have successfully completed ENSL B55ab. **Hours:** 72 lect/disc. **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. Topics: B70a-Time Management; B70b-Notetaking; B70c-Textbook Reading; B70d-Test Taking; B70e-Memory; B70f-Vocabulary. (Credit/No Credit) **Recommended:** Reading Level 4 or satisfactory completion of ACDV B62. **Hours:** 6 lect, 9 lab arranged for each 0.5 unit. **Offered:** F, S, SS. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

ACDV B74 Paragraph Writing Strategy (2 units)

Emphasizes paragraph development, including writing a variety of paragraphs; expository, sequential, narrative, process, compare and contrast, and descriptive. **Prerequisite:** Referral by Learning Disabilities Specialist or Supportive Services Counselor. **Recommended:** Reading Level 3, English Level 4, recommendation of Strategies Model Instructor. **Hours:** 36 lect/disc. **Offered:** F, S. **Repeat:** 1. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

ACDV B75 Sentence Writing Strategy (4 units)

Course emphasizes mastering basic English sentence structure and how to write four kinds of sentences: simple, compound, complex, and compound-complex. **Prerequisite:** Students must have recommendation of the Learning Disabilities Specialist or Supportive Services Counselor. **Recommended:** Reading Level 3, English Level 2, recommendation of Strategies Model instructor. **Hours:** 72 lect/disc. **Offered:** F, S, SS. **Repeat:** 1. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

ACDV B76 Specialized Learning Strategies (1.5 units)

Specifically designed for Supportive Services students. Emphasis is placed on teaching specific strategies to improve testing and proof-reading skills. **Prerequisite:** Students must have recommendation of the Learning Disabilities Specialist or Supportive Services Counselor. **Recommended:** Reading Level 2, English Level 3. **Hours:** 27 lect/disc. **Repeat:** 1. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

ACDV B78 Understanding Basic Math (3 units)

Recommended for DSPS Program students. Emphasis is on basic arithmetic operations including whole numbers, decimals, percents, and operations for circles, areas, perimeters and volume. **Prerequisite:** Recommendation of the Learning Disabilities Specialist or Supportive Services Counselor. **Recommended:** Reading Level 3, English Level 3. **Hours:** 54 lect. **Offered:** F, S, SS. **Repeat:** 1. **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 class and lab periods. Individual prescriptions may include a broad range of communication skills or be limited to specific problems. **Recommended:** Reading Level 2. English Level 3, concurrent enrollment in ACDV B201a. **Hours:** 36 lect, 54 lab. **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)

Students are introduced to the assistive technology they need based on functional limitations presented by their disabilities. **Recommended:** Admission to Supportive Services Program, evaluation by Supportive Services Counselor or Learning Disabilities Specialist. **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 (2 units)

Fundamentals of word processing using methods and materials designed for students with various disabilities. **Recommended:** Reading Level 1, English Level 2. **Hours:** 36 lect, 18 lab. **Offered:** F, S, SS. **Repeat:** 1. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

ACDV B196 Strategic Learning System (2 units)

Students learn to use a complete learning system that incorporates strategies for understanding, integrating and remembering information from texts and lectures as well as strategies to prepare for and take tests. **Prerequisite:** Reading Level 4 or satisfactory completion of ACDV B62. Concurrent enrollment in designated lecture course coordinated with ACDV B196. **Recommended:** English Level 4 or satisfactory completion of ACDV B68/75 or ENSL B3. **Hours:** 42 lect/disc. **Repeat:** 1. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable. **Note:** Not open to students who have taken the equivalent course, CHDV B196.

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 lab for each 0.5 unit. Open entry/open exit. **Repeat:** 3. **Offered:** F, S, SS. **Repeat:** 3 or until 4 units is reached. **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. **Prerequisite:** Referral by subject-area instructor or counselor. **Recommended:** Referral by self for specific remediation. **Hours:** 2-85 individualized instruction and supervised lab. Open entry/open exit. **Offered:** F, S, SS. **Repeat:** 3. **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:** 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 tapes and exercises. **Hours:** 18-36; 18 lab per 0.5 unit. Open entry/open exit within a semester but not beyond a semester. **Offered:** F, S, SS. **Repeat:** 3 or until 2 units is reached. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

ACCOUNTING

See Business Education

ADMINISTRATION OF JUSTICE

Credit limitations may apply. For specific information see a counselor and the department chair. Visit the Criminal Justice Department website at <http://www2.bakersfieldcollege.edu/criminaljus/>

ADMJ B1 Introduction to Administration of 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. CAN AJ 2

ADMJ 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.

ADMJ 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.

ADMJ 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 and/or ADMJ B2 and/or ADMJ B3. **Hours:** 54) lect. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ADMJ 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.

ADMJ 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; courtroom 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. CAN AJ 8

ADMJ B9 Juvenile Procedures (3 units)

Techniques of handling juvenile offenders and victims; prevention and repression of delinquency, diagnosis and referral; organization of community resources; juvenile law and juvenile court procedures. **Recommended:** Reading Level 5 or 6 and/or ADMJ B1. **Hours:** 54 lect. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ADMJ 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 and/or ADMJ B1. **Hours:** 54 lect. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ADMJ B12 Legal and Scientific Aspects of Evidence (3 units)

The collection, identification, preservation and transportation of physical evidence found at crime scenes. The use of photography, molds, casts and moulage masks to preserve evidence. Fingerprint examinations, classification and preservation of prints. Familiarization with polygraph examination. Identification of handwriting and typewriting. Firearms identification. Importance of hair, fibers, dust and blood as evidence. Importance of laboratory examination and discussion of available facilities. Rules of evidence and testimony at trial. **Recommended:** Reading Level 5 or 6 and/or ADMJ B3. **Hours:** 54 lect and assigned field trips. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ADMJ B16 Supervision and Leadership (3 units)

Study of supervisory and leadership principles in law enforcement environment; supervisory roles, functions, and responsibilities; communicating, interviewing and counseling; employees' complaints, grievances, and performance evaluations; personnel deployment, and training. Fulfills educational requirements of C.P.O.S.T. **Recommended:** Reading Level 5 or 6 and/or ADMJ B1. **Hours:** 54 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ADMJ B60 PC 832, Arrest and Control Techniques (2 units)

Provides students with the required competencies and certifications in PC 832, Arrest & Control Techniques. **Hours:** 24 lect, 16 lab. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

ADMJ B61 PC 832 Firearms Training (1 unit)

Provides students with the required competencies and certifications in PC 832 Firearms. Student must be legally able to possess a firearm. **Prerequisite:** ADMJ B60. **Hours:** 14 lect, 10 lab. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

ADMJ B62 Campus Security (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 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:** 418 lect, 342 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. **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.

AGRICULTURE

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

AGRI B10 Introduction to California Agriculture (3 units)

Survey of the agriculture industry in California. Topics include career, job requirements, agriculture terminology, employment opportunities and an orientation to the college curriculum. Satisfies 0.5 unit educational planning requirement for graduation from Bakersfield College. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

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 B248ab Cooperative Work Experience Education (1-8 units. Limit 16 units)

See WEXP B248ab description.

AGRI B249ab Cooperative Work Experience Education (1-4 units. Limit 16 units.)

See WEXP B249ab description.

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)

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 Level 5 or 6. **Hours:** 54 lect. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

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. CAN AG 2

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.

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:** Occupational Education. **Transferable:** UC, CSU and private colleges. BC GE 6; CSU GE C.2; IGETC-Language Other Than English.

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

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

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

ASL B5 Sign Language Interpreting (3 units)

Theory and practice of interpreting is the focus of this introductory course. The history of interpreting, code of ethics and various occupational settings provide students a comprehensive look at the profession of interpreting. Includes practicum experience. **Prerequisite:** ASL B3. **Hours:** 54 lect. Field trips required. **Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

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

ASL B7 Sign and Song (3 units)

Analyzing and translating lyrics from music into visual concepts. Develops sign clarity, conceptual accuracy, mime and staging techniques. This class will present a community performance. **Prerequisite:** ASL B2. **Hours:** 54 lect/disc. Field trips required. **Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. **Note:** Elective Credit only.

ASL B56 Selected Topics in ASL (1 unit)

Specialized vocabulary in American Sign Language. Emphasis is on vocabulary used in practical and occupational settings. **Prerequisite:** ASL B1. **Hours:** 18 lect. **Repeat:** 2 each. **CCS:** Precollegiate - discipline specific. **Not Transferable:** Not degree applicable.

ASL B56a Religious Signs**ASL B56b Medical Signs****ASL B56c Human Sexuality Signs****ASL B56d Social Service Signs****ASL B56e Law Enforcement Signs****ASL B56f Educational Signs****ANIMAL SCIENCE****ANSC B1 Introduction to Animal Science (3 units)**

Covers the scientific and practical aspects of livestock production, focusing on beef, sheep, dairy, swine, cattle, and poultry. Breeds, selection and evaluation, anatomy and physiology, health, nutrition, genetics, processing, and marketing are stressed, as well as career opportunities in each of the respected industries. **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. CAN AG 6; BC GE 5

ANSC B2 Beef Production (3 units)

Covers all segments of the beef industry from purebred operations to marketing. History and development of the industry, breeds, genetics, reproduction, selection, nutrition, health management, handling and processing, and meat science are studied. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect, 54 lab. Field trips required. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. CAN AG 20

ANSC B3 Sheep Production (3 units)

Covers sheep production in the United States, California, and Kern County. Emphasis is on understanding breeds, breeding, lambing, selection, feeding, shearing, and marketing of lamb and wool. **Recommended:** Reading Level 5 or 6. **Hours:** 36

lect, 54 lab. Field trips required. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. CAN AG 22

ANSC B4 Dairy Production (3 units)

Course emphasizes the scientific and practical aspects of dairy production, including: breeding, selection, physiology of lactation, nutrition, and health management of dairy herds. **Recommended:** Reading Level 5 or 6. **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. Includes the study of feed nutrients, digestive systems of farm animals, feed values, and ration balancing to meet production requirements. **Hours:** 54 lect, 54 lab. Field trips required. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ANSC B7 Livestock Diseases (3 units)

Covers the cause, symptoms, and prevention of the major livestock diseases. Emphasis is placed on training students in proper health management techniques. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ANSC B10 Horse Production (3 units)

Covers horse production in the United States, emphasizing the differences between breeds, nutrition and health management, reproduction, behavior, and training techniques. **Recommended:** Reading Level 5 or 6. **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:** 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 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)

Prevention, symptoms, control and treatment of diseases of horses. Meets the needs of the horse owner or stable manager. **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)

A series of lectures covering the various phases of horse nutrition. Designed for the horse owner or trainer. **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.

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

Biological evolution of man and the non-human primates with emphasis on the human fossil record. Races of modern man and human population genetics. **Recommended:** Reading Level 5 or 6, English Level 5. **Hours:** 54 lect. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. CAN ANTH 2; BC GE 5; 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. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. CAN ANTH 4; BC GE 4; CSU GE D.1; IGETC 4.

ANTH B5 North American Indians (3 units)

A descriptive study of Indian culture and societies in North America. Discussion of proto-historic, historic and modern culture groups. Designed to provide an understanding and appreciation of the Indians of North America. **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 4; CSU GE D.1, D.3; IGETC 4.

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

Anthropology 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:** ANTH B1 with a grade of "B" and completion of the course in which the 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 & 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 6

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 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)

Exploration of the creative process emphasizing art as a visual form of communication for both majors and non-majors. Useful criteria for evaluation and enjoyment of art through the development of a visual vocabulary and knowledge of art processes, as well as art in a historical context.

Recommended: Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE 6; CSU GE C.1; IGETC 3.A.

ART B2ab Basic Drawing (3 units)

B2a-B2b (1.5-1.5) equivalent to B2ab.

A foundation in seeing through drawing. Emphasizes major theories and techniques in understanding composition and form. Systematic examination of graphic elements, their formal properties, relations and functions in the organization of graphic structures. Development of drawing as a medium of expression. **Prerequisite:** B2b: ART B2a with a grade of "C." **Recommended:** B2a: Reading Level 5 or 6. **Hours:** 2ab-108 lect/studio. Field trips required. **Repeat:** 3. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. ART B2a+B2b = CAN ART 8; BC GE 6; CSU GE C.1; IGETC 3.A.

ART B2ef Figure Drawing (3 units)

B2e-B2f (1.5-1.5) equivalent to B2ef.

A beginning course in drawing designed to give the student special focus on the human figure as subject. Emphasizes dynamic considerations of drawing as observed in the human form through a study of its structure, anatomy, design, and expression. **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 6

ART B2gh Advanced Figure Drawing (3 units)

B2g-B2h (1.5-1.5) equivalent to B2gh.

Advanced study in exploration of the expressive character of the human figure. Emphasizes manipulation of the visual elements of drawing to communicate statements of emotion and convey character and mood through the drawing's abstract and structural condition. **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 B2ij Advanced Projects in Drawing (3 units)

B2i-B2j (1.5-1.5) equivalent to B2ij.

A continued study of drawing involving use of wet as well as dry media and color as well as black and white. The philosophical implications of drawing; purely aesthetic concerns will be emphasized and deeper analysis of composition and style in that context will be the main objective of the course.

Prerequisites: B2I: ART B2gh with a grade of "C." B2j:

ART B2i with a grade of "C." **Hours:**

B2ij-108 lect/studio. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

ART B3ab Basic Design (3 units)

B3a-B3b (1.5-1.5) equivalent to B3ab. A course in the basic principles of design. Problems of the visual field: dark and light, color, texture, balance and size relationships. Emphasis is on two-dimensional work. **Hours:** B3ab- 54 lect, 54 lab. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. ART B3a+B3b = CAN ART 14; BC GE 6; CSU GE C.1; IGETC 3.A.

ART B3ef Fundamentals of Color 1 (3 units)

B3e-B3f (1.5-1.5) equivalent to B3ef. A course in the fundamentals of color for artists and designers. The Munsell theory and other color systems will be studied with application for the best methods of mixing and relating colors.

Prerequisite: B3f: ART B3e with a grade of "C." **Recommended:** B3e: Reading Level 5 or 6. **Hours:**

B3ef-108 lect/studio. **Offered:** S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE 6

ART B3gh Fundamentals of Color 2 (3 units)

B3g-B3h (1.5-1.5) equivalent to B3gh.

Fundamental color mechanics and aesthetics as they relate to design and graphic applications. **Prerequisites:** B3g: ART B3ef with a grade of "C." B3h: ART B3g with a grade of "C." **Hours:** B3gh-36 lect, 72 studio. **Offered:** S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

ART B4ab Basic Painting - Acrylic Media (3 units)

B4a-B4b (1.5-1.5) equivalent to B4ab. Basic principles of acrylic color mixing and color harmony including basic composition, particularly those aspects with grouping color movements on both the picture plane and the illusionary space. **Hours:** B4ab- 54 lect, 54 lab. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. ART B4a+B4b = CAN ART 10

ART B4cd Advanced Painting - Acrylic Media (3 units)

B4c-B4d (1.5-1.5) equivalent to B4cd. An extension of ART B4ab. Emphasizes shifts from technical information to problems of composition and design. **Hours:** B4cd- 54 lect, 54 lab. **Repeat:** 2. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

ART B4ef Water Color Painting (3 units)

B4e-B4f (1.5-1.5) equivalent to B4ef. ART B4e is a systematic study of watercolor techniques and materials; B4f is a study of the aesthetic application of those techniques in composition. **Hours:** B4ef- 54 lect, 54 lab. **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. Basic ceramic materials and techniques. Preparation, handbuilding, wheel throwing, design techniques and glaze application are explored.

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 6

ART B7cd Ceramics - Intermediate (3 units)

B7c-B7d (1.5-1.5) equivalent to B7cd. Exploration of glaze calculation and kiln firing including advanced work in basic techniques of 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. Designed to offer the student an opportunity to further develop basic ceramic skills. Advanced work in glaze calculations, kiln firing and clay construction. **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. Special projects in advanced ceramic techniques. 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 B8ab Beginning Jewelry (3 units)

B8a-B8b (1.5-1.5) equivalent to B8ab. Fundamental techniques and processes are studied in the designing, forming and finishing of jewelry and other articles in the soft metals, such as brass, copper, gold, and sterling silver. **Hours:** B8ab- 54 lect, 54 lab. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

ART B8cd Advanced Jewelry (3 units)

B8c-B8d (1.5-1.5) equivalent to B8cd. A continuation of beginning jewelry with an explanation of the 'lost wax process,' experimental casting and stone setting. **Recommended:** ART B8ab. **Hours:** B8cd- 54 lect, 54 lab. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges. Note: Elective credit only.

ART B8ef Advanced Jewelry (3 units)

B8e-B8f (1.5-1.5) equivalent to B8ef. A continuation of ART B8cd with emphasis on electroforming, electroplating and surface embellishment. Individual projects are encouraged for all students stressing imaginative and creative interests. **Recommended:** ART B8cd. **Hours:** B8ef- 54 lect, 54 lab. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. Note: Elective credit only.

ART B8gh Advanced Jewelry (3 units)

B8g-B8h (1.5-1.5) equivalent to B8gh. A continuation of ART B8ef with emphasis on independent study, special problems and marketing procedures. **Recommended:** ART B8ef. **Hours:** B8gh- 54 lect, 54 lab. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. Note: Elective credit only.

ART B9ab Glass Design - Glass Blowing (3 units)

B9a-B9b (1.5-1.5) equivalent to B9ab. Basic techniques of handblown glass including glass as an expressive medium in a leaded glass panel. **Hours:** B9ab- 54 lect, 54 lab. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. Note: Elective credit only. BC GE 6

ART B9cd Advanced Glass Design (3 units)

B9c-9d (1.5-1.5) equivalent to B9cd. Advanced techniques of off-hand glass blowing. Extended exploration of the medium of art glass including more advanced blowing techniques, exploration of color, decoration and studio construction. **Recommended:** ART B9ab with a grade of "C." **Hours:** B9cd- 54 lect, 54 lab. **Repeat:** 2. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. Note: Elective credit only.

ART B11ab Sculpture (3 units)

B11a-B11b (1.5-1.5) equivalent to B11ab. An exploration of sculptural concepts and their translation into three-dimensional forms. Problems involving various technical means and the role of materials and techniques in the creative process. Emphasis on personal creative expression through exploring and experimenting with the intrinsic characteristics of each medium. **Recommended:** Reading Level 5 or 6. **Hours:** B11ab- 54 lect, 54 lab. **Offered:** F. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. ART B11a+B11b = CAN ART 12; BC GE 6; CSU GE C.1.

ART B11cd Advanced Sculpture (3 units)

B11c-B11d (1.5-1.5) equivalent to B11cd. Advanced study in the exploration of sculptural concepts. Emphasizes 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 B12ab Figure Sculpture (3 units)

B12a-B12b (1.5-1.5) equivalent to B12ab. A study of sculptural concepts and their relationships to the human form. Emphasizes the translation of human form through three-dimensional design concepts. **Recommended:** Reading Level 5 or 6. **Hours:** B12ab- 54 lect, 54 lab. **Offered:** S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

ART B12cd Advanced Figure Sculpture (3 units)

B12c-B12d (1.5-1.5) equivalent to B12cd. Emphasis on perceiving and establishing the human form in sculptural

materials. **Recommended:** ART B12ab. **Hours:** B12cd- 54 lect, 54 lab. **Repeat:** 2. **Offered:** S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

ART B13cd Beginning Printmaking: Intaglio and Monoprint (3 units)

B13c-B13d (1.5-1.5) equivalent to B13cd. Expressive potential of the fine art print through the knowledge gained in intaglio and monotype printing techniques. **Prerequisite:** B13d: ART B13c with a grade of "C." **Recommended:** B13c: Reading Level 5 or 6. **Hours:** B13cd-36 lect, 72 studio. **Repeat:** 3. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.

ART B17ab Elementary Photography (3 units)

B17a-B17b (1.5-1.5) equivalent to B17ab. Study of the basic principles of cameras, optics, light, film and development, exposure and exposure meters and enlarging. Emphasis is on photographic quality, exploration of the photographer's environment, and personal expression. A suitable adjustable camera is recommended. **Recommended:** B17a: Reading Level 5 or 6. **Hours:** B17ab-108 lect/studio. Field trips required. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. ART B17a+B17b = CAN ART 18; BC GE 6

ART B17cd Intermediate Photography (3 units)

B17c-B17d (1.5-1.5) equivalent to B17cd. The student will complete assignments that will emphasize the refinement of technique and personal expression. A suitable adjustable camera is required. **Recommended:** ART B17ab with a grade of "C." **Hours:** B17cd-108 lect/studio. 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. Study of photography in an area of specialized interest. Advanced work is done in camera technique, darkroom practices and studio. Emphasis is on area of personal interest. Technically proficient work of a creative and original nature is expected. **Recommended:** ART B17cd with a grade of "C." **Hours:** B17gh-108 lect/studio. 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. Special instruction in preparation for professional experience. Strengthening of graphic visualization and technical competence through challenging individual assignments. The content is not structured in the manner of beginning and advanced photography courses. **Recommended:** Evaluation by instructor of student's photography skills. **Hours:** B18ab-18 lect, 54 studio. **Offered:** F, S. **CCS:** Liberal Arts & Sciences.

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

ART B20 Introduction to Computer Graphics (3 units)

The principles and techniques of graphic design and illustration using computer technology. A working knowledge of basic computer graphic operations as the vehicle for creating effective 2-dimensional graphic communications. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 54 lab. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. BC GE 6

ART B21 Graphic Design (3 units)

A study of the tools, concepts and techniques which are incorporated into the development of printed communications. The designing of graphics with production methods in mind. Macintosh Systems computers will be used. **Recommended:** ART B20 and Reading Level 5 or 6. **Hours:** 108 lab. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ART B22 Computer Illustration (3 units)

Principles and techniques of creating original illustrations for print. Computer drawing and painting techniques used to create illustrations in various styles such as editorial, technical, scientific, informational, personal, etc. Emphasis placed on graphic problem solving and the importance of concept, from roughs to finished illustration. Typography will be considered as an integral element to most illustration. **Prerequisite:** ART B20 or equivalent. **Hours:** 54 lect, 54 lab. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ART B23 Advertising Design (3 units)

A study of advertising design from concept through execution. Designing visual images for effective communication. Emphasis is on design for various media: print, outdoor, P.O.P., multimedia. Macintosh Systems computers will be used. **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)

Concepts and techniques of digital image processing. Image creation, scanning, editing, compositing, re-touching, and problem solving using bit-mapped, raster based software. Emphasis on projects using a variety of methods to manipulate and process images. Color systems and output options to various media will be considered. Specific design problems will be presented as the vehicle for understanding. Processes such as painting, masking, layering, color correcting, separating, and effects filtering will be introduced. **Recommended:** ART B20 or equivalent. **Hours:** 54 lect, 54 lab. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ART B25 Typography (3 units)

The role and application of typography in visual communication. A study in the evolution of letterforms to the digital type styles of today. Emphasis on concept development and design craftsmanship as students explore traditional and computer-assisted techniques. Structure, format, legibility, and expression will be considered. Typographic emphasis will be placed on projects related to various graphic design media. **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)

Selected advanced projects. Class content and unit credit to be determined by instructor and student. **Recommended:** Completion of beginning courses in a particular series or evaluation by instructor of student's skills in subject area. **Hours:** 9 lect, 18 studio 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 B30a Survey of World Art, Prehistory Through Islam (3 units)

Slide lecture survey of the architecture, sculpture and painting of the ancient Mediterranean area from the Paleolithic age through the rise of Islam. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F alternate years. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. ART B30a+B30b = CAN ART 2; ART B30a+B30b+B30c+B30d = CAN ART SEQ A; BC GE 6; CSU GE C.1; IGETC 3.A.

ART B30b Survey of World Art, Non-Western Cultures and Medieval Europe (3 units)

Slide lecture survey of the architecture, sculpture and painting of Africa, the Americas, China, India, Japan, and Medieval Europe. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** S alternate years. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. ART B30a+B30b = CAN ART 2; ART B30a+B30b+B30c+B30d = CAN ART SEQ A; BC GE 6; CSU GE C.1; IGETC 3.A.

ART B30c Survey of World Art, 14th Century Through 17th Century (3 units)

Slide lecture survey of the architecture, sculpture and painting of the European Renaissance as well as that of the non-Western world. Included are the cultures of India, China, Japan, the Americas and the Pacific cultures. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F alternate years. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. ART B30c+B30d = CAN ART 4; ART B30a+B30b+B30c+B30d = CAN ART SEQ A; BC GE 6; CSU GE C.1; IGETC 3.A.

ART B30d Survey of World Art, 18th Century Through 20th Century (3 units)

Slide lecture survey of the architecture, sculpture and painting of the Western and non-Western world. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** S alternate years. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. ART B30c+B30d = CAN ART 4; ART B30a+B30b+B30c+B30d = CAN ART SEQ A; BC GE 6; CSU GE C.1; IGETC 3.A.

ART B30e Art of Latin America (3 units)

Includes the study of the arts and artists of the Americas. Emphasis is on the North, Central and South American Spanish speaking regions as well as Cuba and the Dominican Republic. It includes their contributions 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 6.

ART B50 3D Modeling and Illustration (3 units)

The development of 3D computer models and environments for 3D illustration, production and animation design. Imagery will be created with 3D modeling, painting, texture mapping, shading, lighting, and rendering techniques. Hierarchical and basic motion techniques in 3D space will be considered. Course functions as an introductory course into the field of 3D animation for film, video and multimedia. **Prerequisite:** ART B20. **Hours:** 54 lect, 54 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

ART B52 Professional Practice and Portfolio Development (3 units)

Designed to prepare the student to enter the graphic arts field as a sole practitioner, employee, or transfer student. Each student will develop a finished portfolio of work demonstrating his or her skills in the disciplines of graphic design, advertising design, or computer illustration. Students will work on class projects as well as projects submitted from the community. Students will have an understanding of professional business practices and be prepared to advance their careers through employment or college transfer. **Recommended:** Completion of at least 2 computer graphic art classes. **Hours:** 54 lect, 54 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

ASTRONOMY**ASTR B1 Elementary Astronomy (3 units)**

Introductory course emphasizing the fundamental observations and the underlying physical principles in scientific models of astronomy. Among topics included: the motions, properties, and evolution of the sun, planets, stars, galaxies, and universe; the properties of electromagnetic radiation; atomic structure; and astronomical instruments.

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 5; CSU GE B.1; IGETC 5.A.

AUTOMOTIVE

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

AUTO B1 Introduction to Automotive Technology

(4 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:** Reading Level 5 or 6. **Hours:** 54 lect, 54 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. **Hours:** 108 lect, 162 lab. **Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. **Note:** Elective credit only.

AUTO B8 Automotive Suspension, Steering and Alignment (8 units)

Prepares for AES A4 exam. Principles of design and operation, techniques for repair and replacement of 4-wheel suspension components. Alignment procedures using modern computerized 4-wheel alignment equipment. **Recommended:** Reading Level 5 or 6. **Hours:** 108 lect, 108 lab. **Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. **Note:** Elective credit only.

AUTO B12a Automatic Transmissions Overhaul and Service (8 units)

Prepares for ASE A5 exam. Automatic transmissions and transaxles, computer controls, two-, three-, and four-speed transmissions, overdrive, and all related components. Successful completion should enable the student to pass the National Institute of Service Excellence test. **Recommended:** Reading Level 5 or 6. **Hours:** 108 lect, 108 lab. **Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. **Note:** Elective credit only.

AUTO B14 Automotive Tune-Up: Electrical and Ignitions (10 units)

Prepares 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 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 (2 units)**

Prepares for ASE A7 exam. Safety, principles and theory of automotive air conditioning systems, laboratory practice in the installation, service and repair of automotive air conditioning components. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect, 18 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. Note: Formerly AUTO B66.

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. Note: Formerly AUTO B65.

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 B80 Diesel and Heavy Equipment Technician Training (12 units)

Repair service on heavy equipment. Designed for students enrolled through the Career Services Center Program and emphasizes maintenance, repair, trouble-shooting, design, safety, tool usage, machine tool usage, welding and air conditioning. **Prerequisites:** Concurrent enrollment in INDT B90. **Hours:** 80 lect, 320 lab. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

AUTO B90 Automotive Maintenance and Repair (12 units)

Engine components, chassis, brake, air conditioning service and basic engine tune-up. **Prerequisite:** Concurrent enrollment in INDT B90. **Hours:** 80 lect, 320 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**AUTO B103 Automotive and Light Truck Brake Systems (4 units)**

Prepares for ASE A5 exam. A comprehensive course in automotive and light truck brake systems, designed to give the student the skills and technical knowledge to diagnose, repair or replace all the brake components on late model vehicles. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 54 lab. **Repeat:** 1. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

**AUTO B112b Standard Transmissions and Power Train Service (4 units)**

Prepares for ASE A3 exam. Standard transmissions and transaxles, clutches, 'U' joints, differentials and all related components. Successful completion should enable the student to pass the National Institute of Service Excellence test. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 54 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

AUTOMATED PRODUCTION AND MANUFACTURING PROCESSES TECHNOLOGY

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

APRD B1a Introduction to Machine Tool Processes (1.5 units)

Basic machine tool technology, including the use of precision measuring instruments, drilling machines, and lathes. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect/demo; 36 lab. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

APRD B1b Introduction to Machine Tool Processes (1.5 units)

Basic machine tool technology emphasizing the use of lathes and vertical milling machines. **Prerequisite:** APRD B1a. **Hours:** 18 lect; 36 lab. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

APRD B2 Introduction to Numerical Control and Fundamentals of Programming (3 units)

Set-up, operation, and programming of a computer numerical control lathe. **Recommended:** Reading Level 5 or 6. Concurrent enrollment in APRD B1a or evaluation by instructor of student's machining skills. **Hours:** 54 lect, 18 lab by arrangement. **Offered:** F. **Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

APRD B3 Computer Numerical Control Milling Machine (3 units)

Set-up, operation, and programming of a computer numerical control (CNC) 3-axis milling machine including conversational and EIA programming. **Recommended:** Reading Level 5 or 6. Concurrent enrollment in APRD B1a or evaluation by instructor of student's use of precision measuring instruments, drilling machines, and lathes. **Hours:** 54 lect, 18 lab by arrangement. **Offered:** S. **Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

APRD B4 Introduction to Automated Production and Manufacturing Processes (3 units)

Introduction to fundamental concepts of computer integrated manufacturing including computer numerical control machine tools (CNC), computer aided drafting and design (CAD), computer aided manufacturing (CAM), programmable logic control (PLC), servo/non-servo robots, vision inspection, pneumatics, operation of the Bakersfield College CIM cell.

Recommended: Reading Level 5 or 6. **Hours:** 54 lect, 18 lab. **Offered:** F, S. **Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Note: Elective credit only.

APRD B5 Introduction to Programmable Logic Controllers (PLC) (3 units)

The function and application of programmable logic controllers (PLC). Theory on the development and dynamics of the programmable logic controller. Programming with ladder logic using a tech pendant and personal computer to perform tasks with a mercury robot and training simulator. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 18 lab. **Offered:** F, S. **Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. **Note:** Elective Credit only.

APRD B61 Introduction to Process Control (3 units)

Introduction to the function and application of the Allen Bradley SLC-500 series of programmable controllers. Programming with Rockwell Software's RSLogix-500 software. Control of discrete and analog I/O by a closed loop Proportional Integral Derivative (PID) controller as well as a remote PLC controller. **Prerequisite:** APRD B5 or evaluation by instructor of student's PLC programming skills. **Hours:** 54 lect, 18 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

BEHAVIORAL SCIENCE

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

BEHS B5 Elementary Statistics for the Behavioral and Social Sciences (4 units)

Statistics as applied to the behavioral and social sciences. Emphasizes research design, the organization of data, measures of central tendency and variability, the normal curve, correlation and regression, hypothesis testing, parametric and nonparametric techniques, and one-way and two-way analysis of variance. **Prerequisites:** MATH BD. Introductory course in Psychology, Sociology, Anthropology, Economics or Political Science (may be concurrently enrolled). **Recommended:** Reading Level 5 or 6, English Level 5. **Hours:** 90 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, PSYC B5. CAN PSY 6; BC GE 7; CSU GE B.4.

BEHS B6 Introduction to Behavioral and Social Science Research (3 units)

Emphasizes behavioral and social science research, including research design, data collection and analysis, and the development of basic computer skills. Students will collect and analyze data from experiments, questionnaires, polls and a variety of methodologies. **Recommended:** PSYC B5 or MATH B22, 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 courses, PSYC B6 or POLS B6.

BEHS B248ab Cooperative Work Experience Education (1-8 units. Limit 16 units)

See WEXP B248ab description.

BEHS B249ab Cooperative Work Experience Education (1-4 units. Limit 16 units)

See WEXP B249ab description.

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 biological sciences and related subjects. Science of life, survey of living organisms introduction to ecology and evolutionary biology, Mendelian genetics. **Prerequisite:** 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 5; 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. **Prerequisites:** CHEM B1a and BIOL B3a. **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 Environment (3 units)

Introduction to environmental science. The process which will sustain humans on this planet. Topics 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. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE 5; CSU GE E.

BIOL B10 Plant Biology (4 units)

An introductory course covering the fundamental principles of plant biology with emphasis on structure, function, reproduction, and development of seed plants. The principles will be related to the practices of applied plant biology in agriculture, forestry, horticulture, and plant biotechnology; to ecology; and to civilization. **Prerequisite:** Reading Level 5 or 6. **Hours:** 54 lect, 54 lab. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. Note: Not open to students who have taken CRPS B10. BC GE 5; CSU GE B.2, B.3; IGETC 5.B.

BIOL B11 Concepts of Biology (4 units)

A non-majors introductory course which 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 5; CSU GE B.2, B.3; IGETC 5.B.

BIOL B14 Human Anatomy (4 units)

The essential features of human anatomy with special emphasis upon the needs of students majoring in biology, nursing, physical education and the medical sciences. Includes the microscopic and gross anatomy of all systems: skeletal, muscular, circulatory, respiratory, digestive, excretory, nervous, endocrine, reproductive and integumentary. **Prerequisite:** Reading Level 5 or 6. Satisfactory completion of a high school biology course with a laboratory or one semester of college biology. **Hours:** 36 lect and 108 lab. **Offered:** F, S. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. CAN BIOL 10; BC GE 5; CSU GE B.2, B.3; IGETC 5.B.

BIOL B15 Human Physiology (5 units)

Introductory course in human physiology. Physiology of cells, tissues, circulation, respiration, digestion excretion, controls and reproduction. **Prerequisite:** BIOL B14, and one of the following chemistry courses: CHEM B15 or CHEM B11 or CHEM B2a or CHEM B1a. **Hours:** 54 lect, 108 lab. **Offered:** F, S. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. 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. **Hours:** 54 lect, 108 lab. Field trips required. **Offered:** F, S. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. CAN BIOL 14; BC GE 5; CSU GE B.2, B.3; IGETC 5.B.

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

A first course in integrated life science for students in health science programs. Principal emphasis is on the structure and function of human organ systems. Also includes cell structure and function, human development and human heredity. **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 5; 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 5; CSU GE B.2, B.3; IGETC 5.B.

BIOL B21 Special Projects in Biology (1-2 units. Limit 4 units)

Individually directed work in biology, biological preparation, and development of specialized collection materials. **Prerequisites:** Introductory course in college biology. **Recommended:** Reading Level 5 or 6. **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 B53 General Biology (3 units)

Outlines the main facts and principles of biology; experience in the use of scientific method. Recommended (and may be required) as preparation for other college biological sciences whenever the previous school record indicates insufficient preparation for such studies. Recommended: Reading Level 4. **Hours:** 36 lect, 18 lab, 18 disc. Field trips required. **Offered:** F, S. **CCS:** Precollegiate - discipline specific. **Not Transferable:** Not degree applicable. **Note:** Not open for credit to students who have already completed BIOL B3a, BIOL B11, PHYL B1 or high school biology with a grade of "B."

BIOL B248ab Cooperative Work Experience Education (1-8 units. Limit 16 units)

See WEXP B248ab description.

BIOL B249ab Cooperative Work Experience Education (1-4 units. Limit 16 units)

See WEXP B249ab description.

BUSINESS EDUCATION

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

ACCOUNTING**ACCT 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, BUS B53/B253. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

ACCT 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:** ACCT B53a/B253a. **Hours:** 54 lect. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

ACCT 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:** ACCT B53a/B253a. **Hours:** 54 lect. **Offered:** F. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

ACCT 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. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

ACCT B58 Individual Income Tax Preparation (2 units)

Acquaints students with vocabulary, regulations, documents that will enable them to prepare individual federal income tax returns. **Hours:** 36 lect. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

BUSINESS**BUS B3 Business Communications (3 units)**

An introduction to organizational communication. Instruction in group communication, listening, conflict resolution, leadership, employee phases and interviewing. Emphasizes understanding of communication in the work place and related group processes. **Recommended:** English Level 6, Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. **Note:** Not open to students who have taken the equivalent course, SPCH B3. BC GE 2

BUS B5 Human Relations/People Skills (3 units)

A behavioral approach to the business environment including self-understanding, motivation techniques as related to the job place, morale, discrimination, leadership techniques, effects of drugs and alcoholism on the individual and work group, career selection and communication skill building. **Recommended:** ENGL B60. **Hours:** 54 lect/disc. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. **Note:** Elective credit only. BC GE4

BUS 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. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. BC GE 3b

BUS B50a Principles of Technical Writing (1.5 units)

Technical writing principles for the workplace such as analyzing audience, organizing, designing and revising documents. Emphasis on preparing employment documents including the resume and letter of application. **Recommended:** Reading Level 5 or 6. **Hours:** 27 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

BUS B50b Applications of Technical Writing (1.5 units)

Practical application of various written communications needed on the job. In addition to basic letters and memos, experience in writing specialized material such as descriptions, definitions, instructions, proposals, progress and investigative reports. Emphasizes situation analysis and student initiative to solve realistic technical writing problems. **Recommended:** Reading Level 5 or 6. **Hours:** 27 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

BUS 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, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students who have taken the equivalent courses, BUS B53 or BUS B251.

BUS B53 Business Mathematics on Electronic Calculators (4 units)

Reviews basic arithmetic skills along with instruction in the use of the 10-key adding machine by touch and all the functions of the electronic calculator. Using machines, complete business functions such as bank records, invoices, cash and trade discounts, markup and markdown, inventory valuation, payroll, simple and compound interest, promissory notes, installment buying, stocks and bonds, amortization, real estate loans, property tax, personal income tax, depreciation and insurance. **Recommended:** MATH B50 or equivalent and Reading Level 5 or 6. **Hours:** 90 lect/demo. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students who have taken the equivalent courses, BUS B51 or B251.

BUS B54 Introduction to International Business (3 units)

A comprehensive overview of international business designed to provide a global perspective on international trade including foreign investments, impact of financial markets, international marketing, and the operation of multinational corporations. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

BUS B55 International Management (3 units)

An introduction to international management principles with an overview of exporting companies, multinational and global organizations, international law, international human resource issues, operational issues, marketing decisions, strategic planning and competitiveness, and cross cultural issues. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

BUS B56a Introduction to Exporting (1 unit)

Exporting, vocabulary, acronyms, regulations, documentation and sources of information. **Hours:** 18 lect. **Offered:** F. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

BUS B56b Introduction to Importing (1 unit)

Importing, vocabulary, acronyms, regulations, documentation and sources of information. **Hours:** 18 lect. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

BUS B57a Doing Business in the Hispanic Culture (1 unit)

Overview of the effects of culture on communication, interaction and doing business. Cultural roles, manners, customs in the Spanish culture as compared to U.S. culture. **Hours:** 18 lect. **Offered:** F. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

BUS B57b Doing Business in the Asian Culture (1 unit)

Overview of the effects of culture on communication, interaction and doing business. Cultural roles, manners, customs in the Asian culture as compared to U.S. culture. **Hours:** 18 lect. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

BUS B61 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. **Note:** Not open to students who have taken the equivalent course, COMS B61.

BUS B64 Ten-Key Proficiency (1 unit)

Skill and proficiency in the use of the ten-key calculator by touch and the application of such skill and proficiency in the solution of the more frequently encountered business problems and the processing of business forms and documents. **Recommended:** Reading Level 2. **Hours:** 30 lect. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students who have taken the equivalent courses, BUS B53, B253 or B264.

BUS B73 Introduction to Investments (3 units)

An introduction to the principles of investments and money management with an in-depth survey of the stock market. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

BUS B80 Topics in Business Administration (0.5 unit)

Special business topics of interest and concern, including recent developments in the field. **Hours:** 9 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

BUS B80a IRA Management**BUS B80b Developing a Budget**

BUS B80c Accounting for Home-based Businesses**BUS B85 Virtual Enterprise (3 units)**

Designed to give students a world-class business experience in e-commerce through the use of a 'simulated company.' Students will act as employees of a simulated company dealing with real life business problems in an authentic office setting using the latest equipment and communication technology. The company will function within a network of national and international simulated companies. **Hours:** 108 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

BUS B90 Job Readiness (3 units)

Assisting students to develop appropriate skills for working in a business setting. Skills include communication, team building, job search, and technical business applications. **Hours:** 120 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

BUS B95 Virtual Enterprise Summer Institute (2 units)

Provide background and skills necessary for college and high school students to successfully conduct a global business which primarily operates on the internet. **Recommended:** Reading Level 5 or 6. **Hours:** 42 lect, 18 lab. **Offered:** SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

BUS B248ab Cooperative Work Experience Education (1-8 units. Limit 16 units)

See WEXP B248ab description.

BUS B249ab Cooperative Work Experience Education (1-4 units. Limit 16 units)

See WEXP B249ab description.

BUS B251 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 hours individualized instruction or supervised lab. Open entry/open exit. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students who have taken the equivalent courses, BUS B51 or BUS B53.

BUS B252a Quick Computer Keyboarding for Survival (1 unit)

Individualized typewriting instruction includes (1) learning the keyboard by touch, (2) all operational parts of the keyboard, and (3) horizontal and vertical centering. **Recommended:** Reading Level 5 or 6; English Level 5. **Hours:** 30

hours individualized instruction and supervised lab. Open entry/open exit. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students who have taken the equivalent courses, OFFT B52a or OFFT B252a.

BUS B264 Ten-Key Proficiency (1 unit)

Skill and proficiency in the use of the ten-key calculator by touch and the application of such skill and proficiency in the solution of the more frequently encountered business problems and the processing of business forms and documents. **Recommended:** Reading Level 4. **Hours:** 30 lect. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students who have taken the equivalent courses, BUS B53, B253 or B64.

BUSINESS ADMINISTRATION**BSAD B1a Financial Accounting (4 units)**

Introduction to accounting theory and practice. The recording, analyzing, and summarizing procedures used in preparing balance sheets and income statements. It is recommended that this course be taken in the third or fourth semester at Bakersfield College before transferring. **Prerequisite:** Math BD and Reading Level 5 or 6. **Hours:** 72 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. CAN BUS 2; BSAD B1a+B1b = CAN BUS SEQ A

BSAD B1b 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 B1a. **Hours:** 72 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. CAN BUS 4; BSAD B1a+B1b = CAN BUS SEQ A

BSAD B10 Accounting on the Microcomputer (3 units)

Review and practical application of accounting principles, electronic spreadsheets, word processing and data management as they pertain to solution of accounting problems and situations on a microcomputer. Emphasizes analysis of problems and student initiative to solve the problems presented using computerized software available. **Prerequisite:** ACCT B53a/b or BSAD B1a or equivalent. Prior familiarity with, and knowledge of, computers. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

BSAD B18a 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 B 18a 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. **Hours:** 54 lect. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. BC GE 3b

MANAGEMENT

MGMT B41 Advanced Human Resources Management (1.5 units)

Provides additional training in human resources management planning, financing, performance appraisal, promotions and dismissal, and health issues. **Recommended:** Reading Level 5 or 6. **Hours:** 27 lect/disc. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. **Note:** Elective credit only.

MGMT 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:** Reading Level 5 or 6. **Hours:** 54 lect/disc. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

MGMT B48 Small Business Management (3 units)

Provides aspiring entrepreneurs and persons involved in small business ventures with the tools for achieving success in small business operations by analyzing opportunities for business start ups, buyouts, franchising and family business. Instruction for preparing a business plan, marketing plan,

social and ethical responsibility, customer orientation and service, cash flow and cash management, international business opportunities, tax issues, computer software and legal aspects of doing business. **Recommended:** Reading Level 5 or 6. **Hours:** 51 contact time. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

MGMT B50 Managing Quality Organizations (3 units)

Incorporates the systematic approach to constant improvement throughout an organization. Introduces themes, teams, tools/techniques of continuous quality improvement. Emphasizes the quality systems approach to: customer focus; and employee involvement in service, retail and manufacturing situations. **Hours:** 54 lect. **Offered:** F. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students who have taken the equivalent course, INDT B50.

MGMT B51a-B51b-B51c Introduction to Logistics; Elements of Physical Distribution; Physical Distribution Analysis (1-1-1 units)

The process of planning, implementing and controlling the efficient, effective flow and storage of goods, and related information, from point of origin to point of consumption in accordance with customer requirements. Where possible, corporate operations will be integrated with text material. Logistics management is an essential element in organizations that handle the flow and storage of goods. **Hours:** 18 lect for each unit.. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

MGMT B52 Transportation and Traffic Management (1 unit)

Procurement and use of transportation services and the operation of transportation activities as related to a firm's logistical mission from a managerial and operation viewpoint. Provides the student with deeper understanding of the methods and tools used by today's logistics, traffic and carrier managers. **Hours:** 18 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

MGMT B53 Material Handling (1 unit)

Physical handling and packaging of products and materials presented from a managerial and operational viewpoint. Provides the student with a deeper understanding of the material handling methods and tools used by today's warehouse managers. **Hours:** 18 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

MGMT B54 Teams in the Workplace (1.5 units)

Team approach to organizational improvement. Introduces formation, role and future of teams in service, retail and manufacturing situations. **Hours:** (27) 4.5 lect. for 6 weeks. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

MGMT B55 Project Management Training (3 units)

Program coordination skills; budget oversight, staff hiring, evaluation, program development and evaluation. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

MGMT B60 Supervisory Training (2 units)

Provides prospective as well as existing supervisors with current techniques and skills required in today's businesses both profit and non-profit. Encourages an understanding of human relations skills, team and coaching skills as well as human resource management and employee motivation. Covers basic through advanced key elements of planning, organizing, staffing, leading and controlling. Appropriate for those currently in supervisory roles as well as those interested in such positions. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect/disc. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

MGMT B61 Human Resources Management (1.5 units)

Comprehensive review of basic personnel management. Emphasizes concepts and techniques including recruitment and placement, training and development, compensation and motivation, performance appraisals, the legal environment of personnel. **Recommended:** Reading Level 5 or 6. **Hours:** 27 lect/disc. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

MGMT B62 Ethics in the Workplace (1.5 units)

Overview of decision making in a business environment, social responsibility, and moral philosophies to provide managers and anyone working in a business environment with a framework to identify, analyze and understand ethical issues and how business people make ethical decisions. Topics include: development of accountability, moral philosophies, current ethical case reviews, decision-making frameworks, the environment, organizational structure and culture, significant others in the organization, the roles of opportunity and conflict, controlling ethics, and the growing need and role of international business ethics in today's society. **Recommended:** Reading Level 5 or 6. **Hours:** 27 lect. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

MGMT B65a Basic Principles of English for Business/Public Organizations (1 unit)

Examination of basic principles of English as they apply to today's business office. Emphasis is on correct English usage for everyday routine situations. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect/disc. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

MGMT B65b Principles of Writing for Business/Public Organizations (1 unit)

Examination of basic techniques involved in writing business letters, memos, and reports. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect/disc. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

MGMT B65c Organizational Communications (1 unit)

Processes of human behavior and communication within the organizational context. Discussion topics include: role of communication in organizations, communication styles, relationship between verbal and nonverbal behaviors, barriers to effective communication, identification of channels of communication within organizations, small-group communication, conflict and communication. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect/disc. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

MGMT B66 Case Studies in Management (1 unit)

Advanced knowledge and skills in solving managerial problems. Using the case method, discussions will cover a variety of topics. This is the last course of the General Management Certificate. May be taken concurrently with other courses in the sequence. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect/disc. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

MGMT B71 Leadership in Management (1 unit)

Leadership training with emphasis on student participation using practical class projects. Defines, discusses problems of and preparation for leadership. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect/disc. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

MGMT B72 Introduction to Management (0.5 units)

Basic concepts, theories, and practices. A practical orientation focusing on what managers do, how they do it, and what factors determine whether or not they will be successful. **Recommended:** Reading Level 5 or 6. **Hours:** 9 lect/disc. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

MGMT B73 Improving Productivity at Work: Employee Performance and Motivation (1.5 units)

Review of the most effective behavioral management tools used to improve productivity while keeping costs to a minimum. **Recommended:** Reading Level 5 or 6. **Hours:** 27 lect/disc. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

MGMT B75 Managing Cultural Diversity in the Workplace (3 units)

Effective global management skills which are needed to benefit from an expanding international market, improve business communication with foreign nationals and

minorities, master the art of business protocol and cross-cultural courtesy; multicultural diversity occurring in the workplace; providing services to a multicultural population. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect/disc. **Offered:** F. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

MGMT B76 Management of Change and Conflict (1.5 units)

Basic techniques and skills for producing and responding to change. Topics include how to diagnose both the behavioral problems of an individual and the organizational needs. **Recommended:** Reading Level 5 or 6. **Hours:** 27 lect/disc. **Offered:** F. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

MGMT B77 Fundamentals of Public Administration (1.5 units)

How government agencies are formed, what their chains of command are, and how they work. Emphasizes the changing world of public administration, its financial resources, leadership and management functions, human resource issues, program evaluation and ethical concerns. **Recommended:** Reading Level 5 or 6. **Hours:** 27 lect/disc. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

MARKETING

MKTG B1 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.

MKTG B53a Fundamentals of Retailing (3 units)

Examination of opportunities in the field of goods and services and their allied occupations. Topics include: obtaining a job and keeping it, personality development, selling, merchandising, promotions, merchandise analysis, store mathematics, effective oral expression, and human relations. Business community is used as a laboratory to illustrate the latest methods and techniques. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect/disc. Field trip required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

MKTG B62 Fundamentals of Personal Selling (3 units)

Fundamental principles of creative selling. Topics include: prospecting, the approach, methods of presentation and demonstration, marketing, meeting objections, the close and follow-up. **Recommended:** Reading Level 5 or 6. **Hours:** 54

lect/disc. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

MKTG B72 Customer Service (1 unit)

Introduction to basic customer service, telephone and sales skills that will enable the student to join the workforce in at least entry level capacity. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lab. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

OFFICE TECHNOLOGY

OFFT B52ac Computer Keyboarding, Beginning Part 1-2-3 (3 units)

Develops the keyboard by touch and a knowledge of all operational parts of the typewriter. Instruction in centering, letter placement, simple tabulation, reports, rough drafts, forms, proofreading and error correction. **Recommended:** English Level 4, Reading Level 5 or 6. **Hours:** 72 lect, 18 lab. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students who have taken the equivalent course, OFFT B252ac.

OFFT B75 English for Business-Professional-Technical (3 units)

Basic English usage including punctuation, capitalization, number usage, plurals, possessives, and grammar. **Recommended:** English Level 5 eligibility, Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students who have taken the equivalent course, OFFT B275.

OFFT B78 Office Procedures (3 units)

A finishing course for those completing their training for an office career. Includes job attitudes, time management, document preparation, office technology, telephone techniques, processing mail, travel arrangements, keeping appointment calendars, arranging meetings, banking services, the job application process and interviewing techniques. **Recommended:** Reading Level 5 or 6, English Level 5. **Hours:** 54 lect/disc. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

OFFT B80 Topics in Office Technology (0.5-1 unit)

Special topics on office technology of interest and concern, including recent developments in the field. **Hours:** 9 lect for each 0.5 unit. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

OFFT B80a Technology Applications for the Office (0.5 unit)

OFFT B80b Doing Business on the Internet (0.5 unit)**OFFT B252a Computer Keyboarding, Beginning, Part 1 (1 unit)**

Individualized typewriting instruction includes (1) learning the keyboard by touch, (2) all operational parts of the typewriter, and (3) horizontal and vertical centering. **Recommended:** Reading Level 5 or 6; English Level 5. **Hours:** 30 individualized instruction and supervised lab. Open entry/open exit. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students who have taken the equivalent courses, OFFT B52a or BUS B252a.

OFFT B252b Computer Keyboarding, Beginning, Part 2 (1 unit)

Individualized typewriting instruction includes (1) developing typing speed and accuracy, (2) instruction in correcting typographical errors, (3) word division rules, and (4) correct formatting of reports, tables, and business letters. **Prerequisite:** OFFT B252a with a grade of "C." **Recommended:** English Level 4, Reading Level 5 or 6. **Hours:** 30 individualized instruction and supervised lab. Open entry/open exit. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students who have taken the equivalent course, OFFT B52b.

OFFT B252c Computer Keyboarding, Beginning, Part 3 (1 unit)

Individualized typewriting instruction includes (1) developing typing speed and accuracy, (2) instruction in correct formatting of memorandums, post cards, envelopes, printed forms, and reports. **Prerequisite:** OFFT B252b with a grade of "C." **Hours:** 30 individualized instruction and supervised lab. Open entry/open exit. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students who have taken the equivalent course, OFFT B52ac.

OFFT B253abc Document Processing Using Word, Part 1-2-3 (1-1-1 unit)

Further develops keyboarding speed, accuracy, and production rates on letters, reports, tables, forms, rough drafts, and other documents created in the business office. Emphasis is on 'mailable copy' including proper formatting, proofreading, and editing. **Prerequisites:** OFFT B253a: OFFT B52ac/B252c with a grade of "C" OR 35 NWAM on a 5-minute typing test plus knowledge of proper document formatting. OFFT B253b: OFFT B253a with a grade of "C." OFFT B253c: OFFT B253b with a grade of "C." **Recommended:** English Level 5 and knowledge of MS Word. **Hours:** 90 individualized instruction and supervised lab for each unit. Open entry/open exit. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

OFFT B255 Keyboard Skill Building (0.5 unit)

Individualized instruction designed to increase or rebuild typing speed. **Prerequisite:** Minimum typing placement score of 30 NWAM. **Hours:** 30 hours by arrangement in supervised lab. Open entry/open exit. **Repeat:** 1. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

OFFT B256 Spelling (1.5 units)

Reviews, illustrates, and applies the basic spelling rules necessary to become a competent speller. **Recommended:** Reading Level 5 or 6, English Level 5. **Hours:** 27 hours individualized instruction and supervised lab. Open entry/open exit. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

OFFT B257 Filing (1.5 units)

Fundamentals, rules and procedures common to basic systems of filing. Filing equipment and supplies are used to provide instruction and practice in alphabetic, numeric, geographic, and subject filing. **Hours:** 27 hours individualized instruction and supervised lab. Open entry/open exit. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

OFFT B275 English for Business•Professional•Technical (3 units)

Basic English usage including punctuation, capitalization, number usage, plurals, possessives, and grammar. **Recommended:** English Level 5 eligibility, Reading Level 5 or 6. **Hours:** 54 individualized instruction and supervised lab. Open entry/open exit. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students who have taken the equivalent course, OFFT B75.

OFFT B280 Machine Transcription (1.5 units)

Designed to develop skill in operating transcribing machines. Practice will be given in transcribing letters, memoranda, and manuscripts from various areas of business and government. Emphasizes English usage, punctuation and spelling techniques. **Prerequisites:** Keyboarding speed of 40 NWAM; OFFT B75/B275 with a grade of "C." **Recommended:** English Level 6. **Hours:** 27 individualized instruction and supervised lab. Open entry/open exit. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

OFFT B281 Beginning Gregg Shorthand Theory (3 units)

Beginning study of Gregg Shorthand theory with dictation and transcription practice. **Prerequisite:** Minimum typing speed of 30 WAM accurately. **Recommended:** English Level 5, Reading Level 5 or 6. **Hours:** 90 hours individualized

instruction and supervised lab. Open entry/open exit. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

OFFT B282 Gregg Shorthand Dictation and Transcription (3 units)

A review of Gregg shorthand theory with practice in dictation and transcription. Dictation speeds range from 50-80 words a minute. Grammar, punctuation, spelling and business vocabulary will be stressed. Dictation will be taken from specially prepared tapes designed to improve the student's shorthand skill. **Prerequisites:** OFFT B281 with a grade of "C" or ability to transcribe materials dictated at 50 words a minute with 95 percent accuracy and type at least 30 WAM accurately. **Recommended:** English Level 5, Reading Level 5 or 6. **Hours:** 90 hours individualized instruction and supervised lab. Open entry/open exit. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

REAL ESTATE

REAL 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 license.

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

REAL B55 Escrow Procedures I (3 units)

The principles and methods of handling escrows involving title to land, sale of personal property and all other types of escrows ordinarily handled in an escrow office. Includes a study of the various forms and practices used in the drawing of the escrow instructions and the buyers' and sellers' closing statements. Also considers the duties of the escrow officers.

Recommended: Reading Level 5 or 6. **Hours:** 54 lect/disc. Field trips required. **Offered:** F. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

REAL B57 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.

REAL B60 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: REAL B39. **Hours:** 54 lect/disc. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

REAL B61 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:** REAL B39. **Hours:** 54 lect/disc. **Offered:** F. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

REAL B62 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: REAL B39. **Hours:** 54 lect/disc. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

REAL B63 Real Estate Appraisal (3 units)

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

REAL B64 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 REAL B39. **Hours:** 54 lect. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

REAL B65 Real Estate Investment and Taxation (3 units)

Principles and practical applications of real estate investment and tax analysis. Basic fundamentals relevant to students interested in learning real estate investment techniques. Real estate form and cases are used to aid in solving problems.

Recommended: Some previous knowledge of taxes and/or, one year of accounting. **Hours:** 54 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

REAL B68 Advanced Real Estate Appraisal (3 units)

Principles of appraisal, the appraisal process, features of appraisal, property considerations, appraisal techniques and professional standards of appraisers. Actual appraisal of a local apartment complex illustrating all of the factors involved in the appraisal process. Satisfies partial educational requirement of State Brokers Examination. **Prerequisite:** REAL B63 with a grade of "C." **Hours:** 54 lect. Field trips required. **Offered:** S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

REAL B69 Residential Case Study (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:** REAL B63, REAL B68 or evaluation by instructor of student's real estate knowledge. **Hours:** 54 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

REAL B70 Topics in Real Estate (1 unit)

Workshop and seminar related to special topics of interest and concern to the real estate industry. Features panels of specialists or individual speakers. **Recommended:** Reading Level 5 or 6. **Hours:** 18 hours for each unit. **Repeat:** as indicated. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

REAL B70a Salesperson/Broker Prelicense Preparation - Repeat: 3. Offered: F, S.**SMALL BUSINESS****SMBS B54 How to Start Your Own Small Business (1.5 units)**

A basic 'how-to' course designed for those men and women who some day may go into business for themselves or manage a small business. Also designed for those who are already in business for themselves but wish to strengthen their entrepreneurial skills. Topics include advantages and disadvantages of going into business for oneself; how to value a business opportunity; writing a business plan, marketing

and financial controls; legal and insurance aspects of small business management and ownership. Satisfies one of the requirements for a certificate from the U.S. Small Business Administration. **Recommended:** Reading Level 5 or 6. **Hours:** 27 lect/disc. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

SMBS B55 Financing a Small Business (0.5 unit)

Designed to provide practical knowledge of how to set up internal financial systems to provide small business control and to supply financial information to locate and obtain appropriate forms of capital and/or debt if needed. Satisfies one of the requirements for a certificate from the U.S. Small Business Administration. **Recommended:** Reading Level 5 or 6. **Hours:** 9 lect/disc. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

SMBS B56 Marketing a Small Business (1.5 units)

Provides an understanding of the importance of marketing to the success of a small business. A close examination of the marketing plan, including advertising costs and allocations. Reviews the components of the marketing mix as they relate to the overall business strategy. This course satisfies one of the requirements for a certificate from the US Small Business Administration. **Hours:** 27 lect. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

SMBS B60 How to Use a Bookkeeping System (2 units)

Accounting systems, analyzing transactions into credit and debit, journalize and post business transactions. Includes adjusting entries on a worksheet and complete end-of-fiscal-period work for a service business organized as a proprietorship, a merchandising business organized as a partnership, and a merchandising business organized as a corporation. Co-sponsored by the U.S. Small Business Administration. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect/disc. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

SMBS B63 Insuring a Small Business (0.5 unit)

The importance of property and casualty insurance in the success of a small business. A close examination of steps required to protect a small business from risks of loss and bankruptcy. Emphasis is on the risk management process. **Hours:** 9 lect. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

SMBS B71 How to Project and Improve Cash Flow (0.5 unit)

How cash is tracked through the business to promote cash balance at specific intervals. Co-sponsored by the U.S. Small Business Administration. **Recommended:** Reading Level 5 or 6. **Hours:** 9 lect/disc. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

SMBS B72 Tax Savvy for Small Business (0.5 unit)

Tax responsibilities, assistance in making the best tax decisions for small business, and effective record keeping for tax returns including the forms used at federal and state levels. Co-sponsored by the U.S. Small Business Administration. **Recommended:** Reading Level 5 or 6. **Hours:** 9 lect/disc. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

SMBS B74 How to Manage Credit and Collections (0.5 unit)

How to manage customer credit and collection policies and procedures. Co-sponsored by the U.S. Small Business Administration. **Recommended:** Reading Level 5 or 6. **Hours:** 9 lect/disc. **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, 90 lab, 18 disc. **Offered:** F,S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. CAN CHEM 2; CHEM B1a+B1b = CAN CHEM SEQ A; BC GE 5; 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. **Hours:** 54 lect, 90 lab, 18 disc. **Offered:** S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. CAN CHEM 4; CHEM B1a+B1b = CAN CHEM SEQ A;

CHEM B2a Introductory General Chemistry (5 units)

The principles and applications of general college chemistry. Designed for liberal arts, physical education and some nursing majors. Recommended also for students who need additional background for the more intensive course, CHEM 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, 72 lab, 36 disc. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. **Note:** Not open to students with credit in CHEM B1a. CAN CHEM 6; BC GE 5; 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 B8 Elementary Organic Chemistry (3 units)

A survey of organic compounds, including the fundamental organic functional groups, proteins, fats, carbohydrates, and representative types of organic chemical reactions. For students interested in chemical industries, medicine, dentistry, pharmacy, biology and related biological fields, engineering, medical terminology, and chiropractic, or students requiring only one semester of organic chemistry to complete chemistry requirements. **Prerequisites:** CHEM B1a or CHEM B2a with a minimum grade of 'B.' Concurrent enrollment in CHEM B9 required. **Hours:** 54 lect. **Offered:** S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

CHEM B9 Organic Chemistry Laboratory (3 units)

Covers fundamental laboratory techniques in organic chemistry including synthesis, separations, and instrumental analysis. Emphasizes handling of small sample sizes. **Prerequisite:** Concurrent enrollment in CHEM B8. (Note: Students who have taken CHEM B8 prior to 1987 may enroll.) **Hours:** 90 lab, 18 disc. **Offered:** S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, 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. **Hours:** 54 lect, 72 lab. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges. **Note:** Formerly CHEM B15 and CHEM B16. BC GE 5.

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. **Note:** Not open to students with credit in ENVT B49. BC GE 5; 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. Satisfies the requirements in U.S. Constitution, American history and institutions. **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 3a; CSU GE D.3, D.6; IGETC 3.B, 4.

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

Survey of the Chicanos with an emphasis on the development of California and the Southwest from 1848 to the present. Examines the aftermath of the U.S.-Mexican War, 1846-1848; the inter-relationship of Mexican and U.S. history between 1860 and 1910; the effects of the Mexican Revolution of 1910 on the 20th Century experience of Chicanos in the U.S.; and the California State Constitution. Satisfies the requirements in U.S. Constitution, American history, and institutions. **Hours:** 54 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 3a; CSU GE D.3, D.6; IGETC 3.B, 4.

CHST B30e Art of Latin America (3 units)

Includes the study of the arts and artists of the Americas. Emphasis is on the North, Central and South American Spanish speaking regions as well as Cuba and the Dominican Republic. It includes their contributions 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 6.

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 Colonial system 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 B1. 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 3a; 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. BC GE 4; 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 B13a Child Growth and Development (3 units)

Developing child from conception through age six. Includes major theories of emotional, social, physical, and cognitive development. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 18 observation. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. DSS 1; BC GE 4; CSU GE D.7; IGETC 4.

CHDV B13b Child Growth and Development: The School Age Child and Adolescent (3 units)

Physical, intellectual, emotional, and social development of the school age child through adolescence. Major theories of human development and the influences of the family, peers, school, and puberty. **Prerequisite:** CHDV B13a with a grade of "C." **Hours:** 54 lect, 18 hour per week observation. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. (DSS 1 and 5)

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 Development (3 units)

Introduction to the history, philosophy and theories of education of young children. Career and educational program planning. Explains credential and license requirements. Emphasizes different techniques of observation and recording observations of young children. Communicating to parents the value of age appropriate activities. Satisfies the 0.5 Educational Planning requirement for graduation. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect/disc. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. (DSS 1, 3)

CHDV B32 The Anti-Bias/Multicultural Approach to Education of Young Children (2 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:** 36 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private college. 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 B35a Understanding the Emotionally Challenged Child (1 unit)

Understanding of emotional disturbance in children concentrating on the preschool age and the early grade school age child. Study of the utilization of appropriate methods of intervention for those emotionally disturbed children, both preschool age and early grade school-age. **Hours:** 18 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. (DSS 3)

CHDV B35b Understanding the Learning Disabled Child (1 unit)

Types of learning disabilities of children will be recognized. Students will learn remedial techniques used with students having learning disabilities. **Hours:** 18 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

CHDV B35c Understanding the Developmentally Disabled Child (1 unit)

Presents the history of mental retardation and defines mental retardation in relation to child development. Studies teaching techniques for levels of retarded children. **Hours:** 18 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

CHDV B35d Understanding the Physically Challenged Child (1 unit)

Studies physical disabilities of children and the characteristics of those handicaps. Explains inclusion and those responsibilities of teacher, parent, and specialist. **Hours:** 18 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

CHDV B35e Working with the Autistic Child (1 unit)

Characteristics, theories, treatment methods, curriculum, family involvement, and service models available to autistic children. **Hours:** 18 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

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. **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. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. (DSS3) **Note:** Elective credit only.

CHDV B41a Principles and Practices of Early Childhood Education (2 units)

Basic techniques of working with young children including promoting self-esteem; creativity; self-discipline; development of physical and cognitive skills; and planning appropriate curriculum. **Recommended:** Reading Level 5 or 6, CHDV B36, concurrent enrollment in CHDV B41aL. **Hours:** 36 lect./disc. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. (DSS 3) **Note:** Fulfills requirement for Child Development Teacher Permit Matrix.

CHDV B41aL Supervised Field Experience in Early Childhood Education (2 units)

Supervised field experience working with children two to five years of age in a Child Development Center applying knowledge gained in CHDV B41a. **Recommended:** Reading Level 5 or 6, CHDV B40, concurrent enrollment in CHDV B41a. **Hours:** 108 lab. **Offered:** F, S, SS. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. (DSS 3)

CHDV B41b Principles and Practices of Early Childhood Education (2 units)

Advanced skills and knowledge for early childhood programs. Planning learning experiences and developing teaching materials appropriate to the physical, cognitive, social and emotional growth of the young child aged two to five. **Recommended:** Reading Level 5 or 6, concurrent enrollment in CHDV B4bL. **Hours:** 36 lect/disc. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. (DSS 3) **Note:** Fulfills requirement for Child Development Master Teacher Permit Matrix.

CHDV B41bL Supervised Field Experience in Early Childhood Education (2 units)

Advanced internship experience and practice teaching in early childhood programs. Emphasizes curriculum and activity planning, and teaching techniques for three to five year olds. **Recommended:** Reading Level 5 or 6, concurrent enrollment in CHDV B41b. **Hours:** 108 lab. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. (DSS 3) **Note:** Required for Child Development Master Teacher Permit.

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

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.

CHDV B44 Infant/Toddler Care and Development (2 units)

Infant/toddler development - physical, emotional, social and intellectual. Principles of child care, nutrition, health practices, and curriculum for children ages birth through two years. **Recommended:** Reading Level 5 or 6, concurrent enrollment in CHDV B44L. **Hours:** 36 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. (DSS 4)

CHDV B44L Supervised Field Experience for Infant/Toddler Care and Development (2 units)

Supervised field experience in an infant/toddler center. Application of knowledge gained in CHDV B44. **Recommended:** Reading Level 5 or 6, CHDV B40, concurrent enrollment in CHDV B44. **Hours:** 108 lab. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Elective credit only. (DSS 4)

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." **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." **Hours:** 54 lect. Field trips required.

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. **Hours:** 54 lect/disc. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. DSS 7; BC GE 8

CHDV B51 Working with Children Prenatally Substance Exposed (2 units)

Designed to train early childhood and family child care professionals in teaching and caring for children prenatally substance exposed and in forming partnerships with their families. **Hours:** 36 lect/disc. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

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

Interdisciplinary course designed to prepare child care workers and education aides to care for disabled and chronically ill infants and toddlers. **Recommended:** Reading Level

5 or 6. **Hours:** 54 lect. Field trips required. **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 B53b Mentor Seminar (0.5 unit)

Intended for persons who have been certified through the California Mentor Teacher Program. Discussion of issues related to their role as supervisors of early childhood student teachers. **Prerequisite:** Completion of CHDV B53a with a grade of "C." **Hours:** 9 by arrangement. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

CHDV B53c Early Childhood Mentor Training Director Seminar (0.5 unit)

Intended for persons who have been certified through the California Mentor Director Program. Discussion of issues related to their role as supervisors of early childhood directors. **Prerequisite:** CHDV B53a with a grade of "C." **Hours:** 9 by arrangement. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

CHDV B55 Reducing Exceptional Stress and Trauma for Young Children (2 units)

Development of curriculum and intervention guidelines to help young children deal with stress and trauma. Included are working with mental health networks and parents to help children cope with fire, earthquake, floods, lack of safety, civil unrest, crimes against children, and death. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect/disc. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. (DSS 3)

CHDV B56 Parenting (3 units)

Parental attitudes, communication skills, and discipline methods will be explored in a 'hands-on' approach. Social, psychological, economic and cultural forces, including the impact of immigration and acculturation on parenting styles. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

CHDV B57 Creative Use of Literature with Young Children (2 units)

Designed to give early childhood educators skills to select and read aloud books to children birth through age eight. Developing language, meeting children's personal needs, celebrating diversity, motivating the love of reading and learning will be stressed as benefits of children's literature. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect/disc. Field trips required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. (DSS 3)

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 B68a Ages and Stages of Development of the School Age Child

Social, emotional, physical, and intellectual development of the child through the preadolescent years, including planning curriculum and structuring the environment for each stage.

CHDV B68b Curriculum I: School Age Child

School age appropriate flannelboard stories, puppets, choral readings and creative dramas. Emphasis is on child participation in preparing materials, such as puppets, stages, costumes, sets and scripts. **Repeat:** 1.

CHDV B68c Curriculum II: School Age Child

Develops skills in directing team sports, teaching non-competitive games and folk dancing. Research in the community focusing on field trips, activities, and agencies for school age children. Current information for the school age child. Field trips required.

CHDV B68e Discipline for School-Age Children and Adolescents

History, culture and the origin of discipline. Communication and problem-solving skills emphasized. **Hours:** (18) 2 lect for 9 weeks. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

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

CHDV B70b Preschool Curriculum for Parents

Repeat: 3. **Offered:** F, S.

CHDV B70c Use of Puppets and Flannel Boards in the Classroom**CHDV B70d Discipline Techniques for Preschool Children****CHDV B70e Infant Care**

Repeat: 3. **Offered:** F, S.

CHDV B70f Toddler Care

Repeat: 3. **Offered:** F, S.

CHDV B70g Piagetian Activity**CHDV B70h Science for Young Children****CHDV B70i Technology and Young Children****CHDV B70j Communicating with Children About Sexuality****CHDV B70k Literature Enrichment Activities**

Repeat: 1.

CHDV B70L Dramatic Play

Repeat: 1.

CHDV B70m Creative Learning Environment - Inside**CHDV B70n Creative Learning Environment - Outside****CHDV B70q Math and Number Concepts****CHDV B70s Activities for Nutrition of Infants/Toddlers****CHDV B70v Legal and Ethical Issues of Child Development****CHDV B 70z Continuing Professional Development.**

Repeat: Unlimited.

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 lect/lab. Field trips may be required. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

CHDV B71k Topics in Foster Parenting: Independent Living Skills-Adult (1 unit)

Emancipation skills training for foster parents. **Hours:** 13.5 lect, 13.5 lab. **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 of Human Services 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.

CHDV B74 Orientation to Early Childhood Educator Employment Readiness Academy (1 unit)

Orientation to employment readiness in Early Childhood Education, including job readiness skills, curricular areas, and interpersonal communication. **Hours:** 18 lect/disc. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

CHDV B75 Child Development Internship (1-3 units)

Provides a supervised internship working with children birth through age eight for students not yet eligible to enroll in laboratory classes, or for those needing to acquire days of experience for a Child Development Permit. Emphasizes skills needed to be a team player, guidance techniques, and developmentally and culturally appropriate curriculum. **Hours:** 90 lab for each unit. Field trips required. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

CHDV B196 Strategic Learning System (2 units)

Students learn to use a complete learning system that incorporates strategies for understanding, integrating and remembering information from texts and lectures as well as strategies to prepare for and take tests. Prerequisites: Reading Level 5 or satisfactory completion of ACDV B62 and concurrent enrollment in designated lecture course coordinated with ACDV B196. Recommended: English Level 4 or satisfactory completion of ACDV B68/B75 or ENSL B3. **Hours:** 42) 3 lect/disc. **Offered:** F, S. **Repeat:** 1. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable. Note: Not open to students who have taken the equivalent course, ACDV B196.

CHDV B257a Family & Child Care Management (1 unit)

Training for new and existing family child care providers to develop a quality program, including business aspects, health and safety requirements, environment and developmentally appropriate activities. **Hours:** 18 lect/disc. Open entry/open exit. Field trips may be required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

CHDV B257b Networking in Family Child Care (1 unit)

Attendance and participation in selected and approved community events as well as community based lecture/discussions on current issues affecting Family Child Care Homes. **Hours:** 9 lect/disc by arrangement; 9 lab by arrangement. **Repeat:** 3. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

CHDV B257L Laboratory for Family Child Care/Education (2 units)

Supervised laboratory experience caring for and teaching children infant through twelve years of age in a California

Department of Social Services licensed Family Child Care Home. **Prerequisite:** CHDV B257a and CHDV B257b (may be taken concurrently). **Hours:** 108 by arrangement. Open entry/open exit. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

COMMUNICATIONS

COMM B249ab Cooperative Work Experience Education (1-8 units. Limit 16 units)

See WEXP B248ab description.

COMM B249ab Cooperative Work Experience Education (1-4 units. Limit 16 units)

See WEXP B249ab description.

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, and the sciences. Includes the history of computer system components, and sequential and direct-access processing. Database management systems, teleprocessing, and distributed processing are covered. An overview of personal computer applications software (word processing, electronic spreadsheets, and personal database management systems) are also included. **Recommended:** Minimum one year of high school algebra or MATH BA and Reading Level 5 or 6. **Hours:** 54 lect, 27 lab by arrangement. **Offered:** F, S, SS. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.

COMS B5 Introduction to Microcomputer Applications (3 units)

Intended for home users and business people who desire a working knowledge of personal computer hardware and software. Special emphasis on software that is most widely used in Kern County as well as the nation. Mainly focuses on business and home applications of personal computers. Hands-on training with word processing, spreadsheets, database management systems and the necessary operating system fundamentals to use the listed application software. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 27 lab by arrangement. **Offered:** F, S, SS. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

COMS B10 Structured Program Design (1.5 unit)

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:** 27 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

COMS B12 Introduction to Programming with BASIC (3 units)

Fundamentals of programming and operating computer systems in BASIC (Beginner's All-purpose Symbolic Instruction Code). Develops skills in computer programming and general problem-solving tools in business, mathematics, physical sciences, social sciences, and other disciplines.

Prerequisite: MATH BD or two years of high school algebra or equivalent. **Recommended:** COMS B2 and COMS B10 (may be taken concurrently), Reading Level 5 or 6. **Hours:** 54 lect, 54 lab by arrangement. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. BC GE 7; CSU GE B.4.

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 BD or two years 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, 54 lab by arrangement. **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. **Prerequisite:** COMS B2. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 54 lab by arrangement. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.

COMS B25 Introduction to Programming with C (3 units)

Fundamentals of structured programming and operating computer systems in C. Develops structured programming and problem-solving skills and provides experience in using the computer in a variety of applications. **Prerequisite:** Successful completion of a high-level programming language course, or an assembly language course. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 54 lab by arrangement. **Offered:** F. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.

COMS B26 Advanced Programming in COBOL (3 units)

Advanced applications, techniques, procedures, and language statements in COBOL. Development of skills required to write COBOL programs of professional quality. **Prerequisite:** COMS B16 or evaluation by instructor of COBOL programming skills. **Recommended:** MATH BA and Reading Level 5 or 6. **Hours:** 54 lect, 54 lab by arrangement. **Offered:** S. **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:** MATH BD or two years of high school algebra or equivalent, at least one course in high level computer language. **Recommended:** COMS B2 and COMS B10 (may be taken concurrently) Reading Level 5 or 6. **Hours:** 54 lect, 54 lab by arrangement. **Offered:** S. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. CAN CSCI 10

COMS B32 Programming in Windows Using Visual BASIC (3 units)

An introduction to creating Windows applications using the Visual BASIC programming language. The course will cover the fundamentals of event-driven programming in a graphical user interface environment. Students will write programs using Visual BASIC forms and properties, events, controls, built-in functions, procedures, graphics and animation. **Prerequisite:** A high-level programming language. **Hours:** 54 lect, 54 lab by arrangement. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

COMS B34 Business Database Systems (3 units)

The fundamentals of the use of relational and CODASYL model databases in a business environment. Emphasizes the use of SQL, IDMS, and dBASE III database formats. Distinguishing between the various data structures. Designing databases for both the relational and CODASYL models, as well as the fundamentals of writing business applications. **Prerequisites:** COMS B2 and COMS B16. **Hours:** 54 lect, 27 lab by arrangement. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

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, 54 lab by arrangement. **Offered:** S. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.

COMS B36 Systems Analysis and Design (3 units)

Tools and techniques involved in the analysis and design of computerized business systems. Investigative techniques such as interviewing, sampling, questionnaire design, cost-benefit analysis, project management tools, and evaluation of hardware, software and vendors; actual business systems.

Prerequisites: COMS B2 and a high-level programming language. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 18 lab by arrangement. **Offered:** S. **CCS:** Occupational Education. **Transferable:** 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: Minimum one year of high school algebra of MATH BA (may be taken concurrently). **Hours:** 54 lect, 54 lab by arrangement. 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 Introduction to 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 B52a Introduction to the Microcomputer and Windows (1 unit)

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 on an IBM and compatible microcomputers. Includes use of the mouse, the desktop, working with files, printers and fonts, the Windows Explorer, the accessories, and sharing data between applications. **Hours:** 18 lect, 18 lab by arrangement. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

COMS B53 Intermediate Microcomputer Applications (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 B57a Introduction to Microsoft Word for Windows (1 unit)

Use of the Microsoft Word for Windows word processing application. Word Processing fundamentals such as creating, saving, and retrieving documents will be covered. Also included will be editing, formatting, proofing tools, and printing fundamentals. **Hours:** 18 lect, 18 lab by arrangement. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

COMS B57b Intermediate Microsoft Word for Windows (1 unit)

Intermediate capabilities for Microsoft Word for Windows word processing program. Word processing features such as merging, sorting, macros, and document management will be covered. **Prerequisite:** COMS B57a. **Hours:** 18 lect, 18 lab by arrangement. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

COMS B61 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. **Note:** Not open to students who have taken the equivalent course, BUS B61.

COMS B62a Introduction to Spreadsheets with Excel (1 unit)

Introduces students to the use of the spreadsheet using the Excel spreadsheet program. Covers instruction in spreadsheet fundamentals, the use of a mouse, setting up a spreadsheet, cell data entry and edit, formulas, Excel menus, formats, and simple functions and charts. **Recommended:** COMS B52a or some knowledge of microcomputer operations. **Hours:** 18 lect, 18 lab by arrangement. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

COMS B62b Intermediate Spreadsheets with Excel (1 unit)

Intermediate aspects of Excel. Includes advanced formatting, functions, and printing. Also presents database, enhances charts, and an introduction to macros and multiple spreadsheets. **Prerequisite:** COMS B62a or COMS B5 or evaluation of Microsoft Excel skills by instructor. **Hours:** 18 lect, 18 lab by arrangement. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

COMS B68a Introduction to Microsoft Access (1 unit)

An introductory level course in the use of the Microsoft Access database management program. Designed to provide tools to solve typical database problems. Includes use of queries, forms, macros and reports to provide customized information. **Hours:** 18 lect, 18 lab by arrangement. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

COMS B68b Intermediate Microsoft Access (1 unit)

An intermediate level course in the use of the Microsoft Access database management program. Designed to provide tools to solve typical database problems. Includes advanced use of queries, forms, reports, and macros to provide customized information. **Hours:** (18 lect, 18 lab by arrangement. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

COMS B70a Introduction to Electronic Presentations with Microsoft Powerpoint (1 unit)

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

COMS B72 Microcomputer Applications (0.5-1 unit)

Topics in series about Microcomputer Literacy will be offered on an occasional basis as the community need seems to indicate. Microcomputer application courses both for the home and office will offer hands-on experience with popular microcomputers. **Hours:** 9 lect, 9 lab by arrangement for each 0.5 unit. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

COMS B73 Introduction to the Internet (1 unit)

An introduction to the history, structure, and use of the Internet. Students will learn how to use email, web browsers, communication tools and basic web development tools. **Hours:** 18 lect, 18 lab by arrangement. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

COMS B74a Web Development: Web Authoring Tools (1.5 unit)

An introduction to the 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, COMS B73 or evaluation by instructor of the student's ability to use Windows and the Internet. Reading Level 5 or 6. **Hours:** 27 lect, 27 lab by arrangement. **Offered:** F, S. **Repeat:** 3. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

COMS B74b Web Development: HTML (1.5 unit)

An introduction to using hypertext markup language to create Web sites. Students will learn how to create HTML documents in a text editor, how to test and debug them, and how to publish their Web sites. **Recommended:** COMS B52a, COMS B73 or evaluation by instructor of student's ability to use Windows and the Internet. Reading Level 5 or 6. **Hours:** 27 lect, 27 lab by arrangement. **Offered:** F, S. **Repeat:** 3. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

COMS B74c Web Development: Dynamic Web Sites (1.5 unit)

Uses dynamic hypertext markup language 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 B10 or a high-level programming language. Reading Level 5 or 6. **Hours:** 27 lect, 27 lab by arrangement. **Repeat:** 3. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

COMS B74d Intermediate Web Development: Dynamic Web Sites (1.5 units)

Uses intermediate-level dynamic HTML to enhance Web sites. Topics covered include: cascading style sheets; dynamic style, dynamic content, bound data and DHTML positioning. Other topics may be included/substituted in order to stay current with the field. **Prerequisite:** COMS B74c or evaluation by instructor of the student's ability to use dynamic HTML at an introductory level. **Recommended:** COMS B10 or a high-level programming language. Reading Level 5 or 6. **Hours:** 27 lect, 27 lab arrangement for. **Repeat:** 3. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

COMS B74e Intermediate Web Development: Web Authoring Tools (1.5 units)

Designing and implementing intermediate web-authoring components and concepts using FrontPage 2000. Covers techniques for implementing tables, frames, forms, components and java applets in an intermediate-level-setting. Also covers integration of design with technology components.

Prerequisite: COMS B74a 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 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 Active Server Pages Development (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. **Prerequisite:** COMS B74b and COMS B10 or evaluation by instructor of student's experience with HTML and web programming. **Hours:** 54 lect, 54 lab by arrangement. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

COMS B75c Web Application Development: 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. **Prerequisite:** COMS B75b. **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 B76 Web Design Using 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 Advanced Interactive Web Development Macromedia 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 Arc View® GIS (1 unit)

Creating, editing, querying, analyzing and displaying geographic and tabular data. Earn a Certificate of Completion. 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 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 Completion in Advanced Arc View GIS. **Prerequisite:** COMS B37 or COMS B77 or the equivalent. **Hours:** 24 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 MCSE/CNE Networking Technologies - Network+ (3 units)

Designed for individuals interested in a career in network support. Course prepares students for the vendor-neutral CompTIA Network+ certification exam. Topics covered are: 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, 54 lab by arrangement. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

COMS B91 MSCE Administering and Supporting Microsoft NT Server (3 units)

Course serves as a detailed evaluation of Microsoft Windows NT, including both the Client and Server software. It covers introductory and in-depth topics related to Windows NT Client and Server Administration, as well as the core components of the NT 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, 54 lab by arrangement. **Offered:** S. **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 Advanced Integration of Web Technologies (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.

COMS B248ab Cooperative Work Experience Education (1-8 units. Limit 16 units)

See WEXP B248ab description.

COMS B249ab Cooperative Work Experience Education (1-4 units. Limit 16 units)

See WEXP B249ab description.

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 3 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 3 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 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

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/>

CADM B1 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.

CADM B2 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 and/or CADM B1 (may be taken concurrently). **Hours:** 54 lect/disc. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

CADM B3 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 and/or CADM B1 (may be taken concurrently). **Hours:** (54) 3 lect/disc. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

CADM B4 Fundamentals of Probation and Parole (3 units)

Theory and techniques of probation/parole supervision, including historical development with emphasis on recent programs, research, and development in the field. **Recommended:** Reading Level 5 or 6 and/or CADM B1 (may be taken concurrently). **Hours:** (54) 3 lect/disc. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

CADM 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. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

CADM B54 Corrections Academy (11 units)

Introductory correctional officer training covering legal issues, administration management, operational responsibilities and report writing. **Hours:** 200 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

CADM B57 Juvenile Counselor Academy (6 units)

Intended for students pursuing a career as Juvenile Counselors. Covers legal issues, classifications, interpersonal relationships and communication. Approved by State of California Standards and Training for Corrections (STC) for entry level Juvenile Counselors. **Hours:** 144 lect. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

CADM B58 Corrections Food Service Academy (4 units)

Covers legal issues, interpersonal relationships and communications between staff and inmates, writing reports, testifying in court, first aid and CPR, kitchen fire safety and preparation of meals under Title 15 requirements and guidelines. **Hours:** 60 lect, 60 lab. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

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

CADM B70a Inmate Work/Training Incentive Program And Completing State Forms (0.5 Unit)

Intended for people working in the field of corrections. Provides training to document an inmate's performance in a work or academic assignment; also covers the use of written reports. Approved by State of California Standards and Training for Corrections (STC). **Hours:** 9 lect. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

CADM B70b Prison Gangs and Employee Post Trauma Program (0.5 unit)

Intended for people working in the field of corrections and law enforcement. Covers gang identification/activities and identifying post trauma syndrome. Approved by State of California Standards and Training for Corrections (STC). **Hours:** 9 lect. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

CADM B70c IST Drugs, Phase II & CCF Fire Safety (0.5 unit)

STC certified inservice training course primarily for individuals employed in the corrections field. Covers drug use recognition among inmates and CCF fire safety procedures in a correctional facility. **Hours:** 9 lect. **Repeat:** As needed for mandated training. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

CADM B70d First Aid and CPR for Corrections (0.5 unit)

Covers various aspects of CPR and First Aid including knowing when to administer CPR, how to position a victim for rescue breathing, proper CPR techniques for adults and children, and giving first aid to an unconscious or conscious choking victim. **Hours:** 9 lect. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

CADM B70e Anatomy of a Setup/Games Inmates Play (0.5 unit)

Covers situations and various strategies correctional officers must be aware of when dealing with inmates. How to recognize and handle a potentially dangerous situation. **Hours:** 9 lect. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

CADM B70f Hostage Survival/Conflict Resolution (0.5 unit)

Covers situations and various strategies correctional officers must be aware of to avoid being taken as a hostage. Also covers defusing hostile situations that may develop in correctional institutions between inmates and staff using conflict resolution techniques. **Hours:** 9 lect. **Repeat:** Unlimited. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

CADM B72 O.C. Pepper Spray (0.5 unit)

Intended for peace officers, correctional officers, juvenile counselors and probation officers. Provides the required competencies and certification in the use of O.C. Pepper Spray. Approved by P.O.S.T. **Hours:** 9 lect. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

CADM B80 Supervisor Training for Peace Officers (2 units)

Intended for peace officers, correctional officers, juvenile counselors and probation officers who have been newly promoted to supervisory positions. Provides the required competencies and certification in supervisory training. Approved by State of California Standards and Training for Corrections (STC). **Hours:** 40 lect, 40 lab. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

CROP SCIENCE

Credit limitations may apply, For specific information see a counselor

CRPS B1 Principles of Crop Production (3 units)

Fundamental practices for field and vegetable crops: basic botany, classification of plants, soils, fertilizers, irrigation, pest control, and crop rotation as well as specific practices for major crops grown in the San Joaquin Valley. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 36 lab. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. BC GE 5

CRPS B2 Forage Crops (3 units)

Study of the common forage crops: alfalfa, common pasture grasses and legumes. Varieties, adaptations, methods of handling and procession. Seeding and seed bed preparation. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect, 54 lab and/or selected field trips. Field trips required. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

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 required.

Offered: F. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. 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 will be 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:** CSU and private colleges. Note: Not open to students who have taken BIOL B10. BC GE 5.

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.

DANCE

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

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:** UC, CSU and private colleges. **Note:** Not open to students with credit in PHED B6bLb; BC GE 9; 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. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. **Note:** Not open to students with credit in PHED B6jd. BC GE 9; 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:** UC, CSU and private colleges. Note: Not open to students with credit in PHED B6md. BC GE 9; CSU GE C.1.

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 B1, Reading Level 5 or 6, MATH BA. **Hours:** 54 lect. **Offered:** F, S.

CCS: Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. CAN ECON 4; BC GE 3b; 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. Emphasizes 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 B1, Reading Level 5 or 6, MATH BA.

Hours: 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences.

Transferable: UC, CSU and private colleges. CAN ECON 2; BC GE 3b; 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:** CSU and private colleges.

ELECTRICAL TECHNOLOGY

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

ELET B1 Fundamentals of Electronics (DC) (4 units)

Introduction to electricity including electrostatics, direct current circuits, resistive alternating current circuits, electrical circuit calculations, electrical measurements, and use of test equipment. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 54 lab. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ELET B2 Fundamentals of Electronics (AC) (4 units)

Direct and alternating current circuit analysis using network theorems in resistive and reactive circuits. Includes study of resonance, power factor correction, and passive filters.

Prerequisite: ELET B1 with a grade of "C" or equivalent background in electricity/electronics. **Hours:** 54 lect, 54 lab. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ELET B9 Semiconductor Circuit Analysis (4 units)

Characteristics and applications of semiconductor electronic devices including operational amplifiers and other linear integrated circuits in analog circuits including power supplies, amplifiers, oscillators, and active filters. **Prerequisite:** ELET B2 with a grade of "C."

Recommended: ELET B1. **Hours:** 54 lect, 54 lab. **Offered:** S. **Repeat:** 2. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ELET B12 Digital Logic (4 units)

Number systems, boolean logic, and fundamentals of digital devices; basic applications of logic devices in computers and control systems. Course includes an introduction to microprocessors and their applications. **Hours:** 54 lect, 54 lab.

Offered: F. **Repeat:** 2. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ELET B55 Electric Motors - Controls (4 units)

Basic principles of design and construction, operating characteristics, efficiency and application of direct current and alternating current machines. Emphasis is placed on programmable, solid state, and electromechanical motor controllers. **Prerequisite:** ELET B1. **Recommended:** Reading level 5 or 6. **Hours:** 54 lect, 54 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

Hours: 54 lect, 54 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

ELET B56 Introduction to Industrial Measurement and Control (1.5 units)

Basic principles of process measurement and control.

Recommended: Reading Level 5 or 6. **Hours:** 27 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

ELET B62 Electronic Communication Systems & Circuits (4 units)

Introduction to the basic circuits and communications systems used in modern electronic communications. **Prerequisite:** ELET B9 with a grade of "C" or better (may be taken concurrently). **Hours:** 54 lect, 54 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

EMERGENCY MEDICAL TECHNICIAN

EMTC B50 Emergency Medical Care (4 units)

Foundation skills and assessment techniques to care for an ill or injured person in the pre-hospital setting. Closely 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 health requirements to participate in the laboratory section of the course. Any expenses involved in meeting the health requirements are the student's expense. **Prerequisite:** Must be at least 18 years of age by the end of class. **Recommended:** MEDS B60 (2 units). **Hours:** 104 lect/lab, plus 16 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 transform. **Prerequisites:** PHYS B4b. **Recommended:** MATH B6d (may be taken concurrently). **Hours:** 54 lect, 18 disc. **Offered:** S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. CAN ENGR 12

ENGR B19f/B19c 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 B19f uses the Fortran language, while

ENGR B19c utilizes 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. B19f: BC GE 7; CSU GE B.4.

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 BC 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. CAN ENGR 2

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. CAN ENGR 8

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 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 BC and CHEM B1a and PHYS B4a OR MATH BC and CHEM B2a and PHYS B2a. **Hours:** 36 lect, 18 disc, 54 lab. **Offered:** F. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. CAN ENGR 4

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.

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, B1, and B1a are sequential courses designed to develop proficiency in writing. ENSL B3, B2, and B1 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 B1; 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 B1 Introductory Composition (4 units)

Emphasizes the writing of expository and argumentative essays and the comprehension and analysis of readings. Satisfies the General Education requirement in written English for the AA and AA degrees and prepares transfer students for English B1a. **Prerequisite:** ENGL B60 with a grade of "C" or 'CR' or English Level 5. **Hours:** 72 lect. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. BC GE 1

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 B1 or ENSL B1 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. CAN ENGL 2; ENGL B1a+B1b = CAN ENGL SEQ A; BC GE 1; 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. CAN ENGL 4; ENGL B1a+B1b = CAN ENGL SEQ A; BC GE 6; CSU GE A.3; CSU GE C.2; IGETC 3.B.

ENGL B2 Advanced Composition and Critical Thinking (5 units)

Expository writing, reading of expository and literary works; study of the most important ideas in great works in philosophy, natural science, literature, and the social and behavioral sciences; survey of methods of critical thinking and advanced composition. **Prerequisite:** ENGL B1a with a minimum grade of "C." **Hours:** 72 lect/disc plus 18 hours arranged. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE 6; CSU GE A.3; IGETC 1.B.

ENGL B5a-B5b Survey of English Literature (3-3 units)

A historical survey of English literature, emphasizing critical reading of representative works from Beowulf to James Joyce. Usually includes a field trip to the Huntington Library (San Marino, CA) for firsthand observation of manuscripts and printed books important to the history of English literature. 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 B1 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. ENGL B5a+B5b = CAN ENGL SEQ B; BC GE 6; 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. **Recommended:** Reading Level 5 or 6, 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 6; CSU GE C.2.

ENGL B20a-B20b Survey of World Literature (3-3 units)

An historical survey of world literature, focusing on but not limited to Western world literature. **Prerequisite:** Satisfactory completion of ENGL B1 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 6; CSU GE C.2; IGETC 3.B.

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 B1 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 6; 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 B1 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 6; 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 B1 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 6; 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. Includes Sumerian and Babylonian. Relates classical myths to historical and modern culture. **Prerequisite:** Satisfactory completion of ENGL B1 with a minimum grade of "C" or English Level 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE 6; CSU GE C.2; IGETC 3.B.

ENGL B29 Science Fiction (3 units)

Through reading and discussing novels, short stories, graphic novels and viewing and discussing movies and videos, students will learn to define science fiction and identify principal themes. These themes include time travel, space

exploration, encounters with extraterrestrials, extension of human powers through biological alteration and computer technology, creation of ideal societies (utopias), and ecological disaster. **Prerequisite:** Satisfactory completion of ENGL B1 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 6; CSU GE C.2; IGETC 3.B.

ENGL B30a-B30b Survey of American Literature (3-3 units)

A study of the most notable American authors from the colonial period to the present with emphasis on the intrinsic value of the literature. Recommended as an elective for majors in the humanities, history or education. **Prerequisite:** Satisfactory completion of ENGL B1 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 6; 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 B1 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 6; 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. Basics of submitting manuscripts to publishers. **Prerequisite:** Satisfactory completion of ENGL B1 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. BC GE 6

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 B3 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 credit/no credit grading only. **Hours:** 9 individualized instruction and supervised lab. **Repeat:** 3. **Offered:** F, S. **CCS:** Liberal Arts and Sciences. **Not Transferable:** Not degree applicable.

ENGL B261 Supervised Tutorial Writing Lab (0 units)

Provides supervised lab time during which students may obtain individualized instruction in such areas as writing research, analysis, and organization. **Hours:** 2-85 individualized instruction and supervised lab. Open entry/open exit. **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 B1 College Composition (4 units)

Composition course for foreign/bilingual students which provides extensive practice in rhetorical modes of composition and persuasion as well as comprehension and analysis of reading. Stresses both organization and in-depth essay development. Satisfies the General Education requirement in written English for the AA and AS degrees and prepares transfer students for ENGL B1a.

Prerequisites: ENSL B2 or ENGL B60 with a minimum grade of “C” or ‘CR.’ **Hours:** 72 lect. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. **Note:** Elective credit only. BC GE 1

ENSL B2 Advanced Grammar and Composition (4 units)

Writing course for foreign/bilingual students at the advanced level of English who require grammar and composition skills necessary to take essay exams, improve personal and professional writing, or prepare for ENSL B1 or ENGL B1. (A minimum grade of “C” in ENSL B2 will satisfy prerequisite for ENSL B1 and ENGL B1.) **Prerequisites:** ENSL B3 or ACDV B68 with a minimum grade of “C.” **Hours:** 72 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. **Note:** Elective credit only. BC GE 6

ENSL B3 Intermediate Grammar and Composition (4 units)

Writing course for foreign/bilingual students at the high-intermediate level of English who require grammar and composition skills necessary to take essay exams, improve personal written communication, or prepare for ENSL B2, ENSL B1, or ENGL B1. **Recommended:** Placement based on the Bakersfield College English as a Second Language Placement Test, ENSL B55ab with a minimum grade of “C.” **Hours:** 72 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. **Note:** Elective credit only.

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 Pronunciation and Comprehension (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 B75 and ENSL B71 series. **Hours:** 54 lect/disc. **Repeat:** 1. **Offered:** F. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. Elective credit only.

ENSL B22 Group Discussion and Conversation (3 units)

Individual prescriptive training for students with problems in pronunciation, stress and intonation in spontaneous speech samples. **Recommended:** ENSL B21. **Hours:** 54 lect/disc. **Repeat:** 1. **Offered:** S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. Elective credit only. BC GE 6

ENSL B31 Advanced Reading and Literature (3 units)

Reading course for advanced foreign/bilingual students who require critical reading skills and vocabulary necessary to read and comprehend college level material in English literature. **Recommended:** Placement based on the Bakersfield College English as a Second Language Placement Test, ENSL B51 with a minimum grade of "C." Reading Level 4, or evaluation by instructor of student's reading skills and vocabulary, and ENSL B3 with a minimum grade of "C" or eligibility for ENSL B2 or ENGL B60. **Hours:** 54 lect/disc. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. **Note:** Elective credit only. BC GE 6

ENSL B51 High-Intermediate Reading and Vocabulary (4 units)

Recommended for foreign and bilingual students who need to improve reading comprehension and build vocabulary in English. Emphasis is on looking for main ideas, summarizing, making inferences, vocabulary, using correct grammar patterns with more complex reading selections than in ENSL B61. **Recommended:** ENSL B61, a qualifying score on the ENSL Placement Test, or evaluation of student's reading skills by instructor. **Hours:** 72 lect/disc. **Offered:** F, S. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

ENSL B55ab Preparation for Academic Writing (4 units)

Development and control of grammar and usage for foreign and bicultural American students to advance to ENSL B3. Focuses on grammar review, extensive sentence and paragraph writing, and vocabulary and idiom development. **Recommended:** Placement based on the Bakersfield College English as a Second Language Placement Test, ENSL B75ab and ENSL B75cd. **Hours:** 72 lect/disc. **Repeat:** 1. **Offered:** F, S. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

ENSL B61 Low-Intermediate Reading and Vocabulary (4 units)

Recommended for foreign and bilingual students who need to improve reading comprehension and build their vocabulary in English. Emphasis is on looking for main ideas, summarizing, making inferences, building vocabulary, and using correct patterns of grammar. **Recommended:** Placement based on the Bakersfield College English as a Second Language Placement Test or ENSL B75cd or ENSL B71ab, ENSL B71cd, or evaluation of student's reading skills by instructor. **Hours:** 72 lect/disc. **Offered:** F, S. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

ENSL B65 Intensive Grammar Drill (1-3 units)

Recommended for foreign and bicultural American students who need extra help with verbs, articles and prepositions. Emphasizes intensive oral and written drill. **Recommended:** Placement based on the Bakersfield College English as a Second Language Placement Test or ENSL B75ab, or ENSL

B75cd. **Hours:** 18 lect for each unit. **Repeat:** 1. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

ENSL B71ab Basic Listening and Speaking I (4 units)

Guided practice for improvement of pronunciation, intonation patterns and aural comprehension of non-native English speakers. **Recommended:** Placement based on Bakersfield College English as a Second Language Placement Test. **Hours:** 72 lect/disc. **Repeat:** 1. **Offered:** F. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

ENSL B71cd Basic Listening and Speaking II (4 units)

B71c-B71d (2-2) equivalent to B71cd. Improves the pronunciation and intonation patterns of the non-native English speaking person. Aural comprehension in everyday conversational speech and classroom lectures will also be stressed. **Prerequisite:** ENSL B75ab. **Hours:** 36 lect/disc for each 2 units. **Repeat:** 1. **Offered:** S. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

ENSL B75ab Basic Grammar and Syntax I (4 units)

Emphasizes grammar and writing practice of the structures of basic English. **Recommended:** Placement on the Bakersfield College English as a Second Language Placement Test. **Hours:** 72 lect/disc. **Repeat:** 1. **Offered:** F. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

ENSL B75cd Basic Grammar and Syntax II (4 units)

Continuation of ENSL B75ab with more complex intermediate grammar and writing. Covers more advanced uses of the structures of English grammar and continues to build writing skills and vocabulary. **Prerequisite:** ENSL B75ab. **Hours:** 72 lect/disc. **Repeat:** 1. **Offered:** S. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable.

ENSL B200 Basic English Skills (0 units)

Basic listening, speaking, reading, and writing skills for high-beginning to low intermediate non-native speakers of English. A distance-learning program. **Hours:** 0.5-238 contact time. Open entry/open exit. **CCS:** Precollegiate - Basic Skills. **Not Transferable:** Not degree applicable.

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:** (90) 2 lect, 3 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:** (90) 2 lect, 3 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:** (90) 2 lect, 3 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:** (90) 2 lect, 3 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:** (90) 2 lect, 3 lab. Field trips required. **Offered:** F. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. CAN AG 18

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:** (90) 2 lect, 3 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:** (90) 2 lect, 3 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) 9 lect for 2 weeks. Field trips required. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

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) 3 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) 2 lect for 9 weeks. **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) 2 lect for 9 weeks. **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) 2 lect for 9 weeks. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

ENVIRONMENTAL TECHNOLOGY**ENVT B1ab Introduction to Environmental Technology (3 units)**

B1a-B1b (1.5-1.5) equivalent to B1ab

An introduction to the overall scope of Hazardous Materials Technology. Emphasizes legal definitions, terminology, and regulatory framework. Included is an historical background, career opportunities, governmental processes, and an overview of major hazardous materials handling and management procedures and requirements. **Prerequisite:** B1b: ENVT B1a.

Recommended: B1a: Reading Level 5 or 6. **Hours:** (27-27) 3 lect/disc for 9 weeks. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ENVT B10 Safety and Emergency Response (1-1.5 units)

Modules designed to meet OSHA health and safety training requirements for hazardous materials and waste workers. ENVT B10a meets the 24-hour Hazardous Waste Worker Certification requirements. Three modules combined meet the 40-hour "hands on" certification requirements. Module "a" should be taken prior to "b" and "c." **Recommended:** ENVT B49/CHEM B49 or CHEM B11. **Hours:** (24-54) 1.5 to 3 lect/lab. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ENVT B10a Hazardous Materials Awareness and Safety (1 unit)

Health and safety aspects of working with hazardous materials. Emphasizes recognition of hazardous materials and the nature of worksite hazards. Included is a study of hazard classifications, laws and regulations applying to worker health and safety, types of health effects, personal protective equipment, risk reduction processes, and health and safety planning processes. Designed to meet general requirements of OSHA Hazardous Materials Training for work not requiring the use of respiratory protection. **Recommended:** ENVT B49/CHEM B49 or CHEM B11. **Hours:** (24) 3 lect for 8 weeks. **Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ENVT B10b Spill Control and Emergency Response (1.5 units)

Procedures for safety and emergency response to chemical spills in industrial and field setting. Focus on various spill control containment, and mitigation procedures, and development and implementation of a personal protective program pursuant to OSHA standards. **Recommended:** ENVT B49/CHEM B49 or CHEM B11. **Hours:** (45) 1.5 lect, 1.5 lab for 15 weeks. **Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ENVT B10c Decision Making in Emergencies (1.5 units)

Safety and emergency response to chemical and physical exposures in industrial and field settings. Focus on hazardous analysis and emergency response planning including: contingency and emergency plans; hazard identification; vulnerability analysis and risk evaluation; response functions, and incident command functions. **Recommended:** ENVT B49/CHEM B49 or CHEM B11. **Hours:** (45) 1.5 lect, 1.5 lab for 15 weeks. **Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ENVT B15 Hazardous Materials Management Applications (1-1.5 units)

Modules designed to cover the requirements and applications of federal, state, and local laws and regulations relating to

hazardous materials management. **Recommended:** ENVT B49/CHEM B49 or CHEM B11, ENVT B1, ENVT B30. **Hours:** (18-45) 3 lect or 3 lect/lab. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ENVT B15a Right to Know Laws (1.5 units)

Covers California and federal OSHA Hazard Communication Standards, Hazardous Material Emergency Planning and Community Right-to-Know regulations, and California's Safe Drinking Water & Toxic Enforcement Act. Emphasizes applications of these laws and regulations in the workplace, including proper labeling and handling of hazardous materials, obtaining MSDSs; and planning and reporting functions. **Recommended:** ENVT B1ab, ENVT B49/CHEM B49 or CHEM B11. **Hours:** (45) 1.5 lect, 1.5 lab for 15 weeks. **Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ENVT B15b Transportation and Storage of Hazardous Materials (1.5 units)

Focuses on California and Federal Transportation and Underground Tank regulations. Emphasizes applications of laws and regulations in the work of environmental technicians in industry, including proper completion of shipping papers; obtaining permits for operating, installing or closing underground tank facilities, and general planning and reporting functions. **Recommended:** ENVT B1ab, ENVT B49/CHEM B49 or CHEM B11. **Hours:** (45) 1.5 lect, 1.5 lab for 15 weeks. **Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ENVT B15c Air Quality Issues (1 unit)

Focuses on California federal, state and local air quality issues. Emphasizes applications of laws, regulations, and procedures in industry including, identification of toxic air pollutants, new source review and permitting, and general planning and reporting functions. **Recommended:** ENVT B1ab, ENVT B49/CHEM B49 or CHEM B11. **Hours:** (18) 3 lect for 6 weeks. **Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ENVT B20 Hazardous Waste Generation, Reduction and Treatment (3 units)

The use of chemicals and materials in industrial processes and hazardous waste generation/reduction. Waste streams of seven selected industry categories will be covered. Examines applicable regulations and material balance concept of inventory. **Prerequisites:** CHEM B11 or ENVT B49. **Recommended:** Reading Level 5 or 6. **Hours:** (54) 3 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ENVT B30 Health Effects of Hazardous Materials (3 units)

Acute and chronic health effects produced by exposure to chemical, physical, and biological agents. Emphasis is on hazardous materials commonly associated with industrial operations, waste disposal, and remediation sites. Topics include routes of entry, toxic effects, risk evaluation, permissible exposure limits, medical surveillance, control methods for reducing exposure, and understanding an MSDS. **Prerequisite:** BIOL B18 or equivalent. **Hours:** (54) 3 lect. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ENVT B40 Hazardous Waste Management Applications (1-1.5 units)

Modules designed to cover the requirements and applications of federal, state, and local laws and regulations relating to hazardous waste management. **Recommended:** ENVT B49/CHEM B49 or CHEM B11, ENVT B1. **Hours:** (18-45) 3 lect or 3 lect/lab. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ENVT B40a Generator Requirements (1.5 units)

Requirements and applications of federal, state and local laws and regulations relating to hazardous waste management, including California and federal requirements for generators of hazardous waste. Emphasis on applications of laws and regulations applicable to industry including proper labeling, packaging, placarding, and manifesting of hazardous waste; storage requirements; permitting; and general planning and reporting functions. **Recommended:** ENVT B1ab; ENVT B49/CHEM B49, or CHEM B11. **Hours:** (45) 1.5 lect, 1.5 lab for 15 weeks. **Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges

ENVT B40b Sampling and Analysis (1.5 units)

Requirements and applications of environmental sampling, methodology, equipment recognition and maintenance, calibration procedures, basic analytical techniques, and data interpretation. Selecting and working with analytical service laboratories, use and development of sampling plans, and performance of basic tests using typical field equipment will also be covered. **Recommended:** ENVT B1ab; ENVT B49/CHEM B49, or CHEM B11. **Hours:** (45) 1.5 lect, 1.5 lab for 15 weeks. **Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges

ENVT B40c Special Topics in Hazardous Waste Management (1 unit)

Requirements and applications of federal, state, and local laws and regulations relating to hazardous waste management as well as focus on California and federal requirements for special hazardous waste management areas. Emphasizes applications of laws and regulations including: overlapping agency jurisdictions; real estate transactions; infectious waste control; and household hazardous waste. **Recommended:** ENVT B1ab; ENVT B49/CHEM B49, or CHEM B11.

Hours: (18) 3 lect for 6 weeks. **Repeat:** 1. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

ENVT 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:** (108) 3 lect, 1 disc, 2 lab. Field trips may be required. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. **Note:** Not open to students with credit in CHEM B49. BC GE 5; CSU GE B.1, B.3.

FAMILY AND CONSUMER EDUCATION

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

FACE B248ab Cooperative Work Experience Education (1-8 units. Limit 16 units)

See WEXP B248ab description.

FACE B249ab Cooperative Work Experience Education (1-4 units. Limit 16 units)

See WEXP B249ab description.

FAMILY STUDIES

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

FAMS B90 Parent/Consumer Education (0 units)

Selected areas of family living such as nutrition, canning, quick meals, sewing, decorative arts, toys and activities for young children including parenting skills and problems facing today's families. **Hours:** 3-54 3 lect. **CCS:** Community Education - Parenting. **Not Transferable:** Not degree applicable.

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 nomen-

clature; 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 (4 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:** 72 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 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:** Degree applicable 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 B64a Beginning Volunteer Firefighting (1 unit)

Basic knowledge and skills in firefighting practices for volunteers. Includes basic usage of forcible-entry tools, ventilation tools, rope usage, extinguisher usage, salvage and overhaul procedures, rescue procedures, resuscitation procedures and cardiopulmonary resuscitation procedures used by Fire Departments. Also includes areas of fire behavior and tactics; pumping procedures; hose evolutions, and ground ladder procedures. **Hours:** 18 lect. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

FIRE B64b Advanced Volunteer Fire Fighter Certification (4.5 units)

Basic knowledge and skills in fire fighting practices for volunteers. Includes fundamental usage of forcible-entry tools, ventilation procedures, rope usage, extinguisher practices, salvage and overhaul procedures, rescue procedures, cardio-pulmonary resuscitation techniques, fire behavior and tactics, fire streams, hose evolutions, and ladder procedures. **Hours:** 54 lect, 90 lab. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

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 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 (0.5-0.5-1 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 I - Non-Ambulance (4 units)

Techniques of emergency medical care presently considered within the responsibilities of the Emergency Medical Technician as well as all operational aspects. Emphasizes the development of student skills in recognizing symptoms of illness and injuries, and proper procedures of emergency care. Meets California State Department of Health and State Board of Fire Services criteria for EMT 1-NA Training. **Recommended:** FIRE B1 and/or FIRE B50a. **Hours:** 72 lect, 56 demo/practical exercises. Field trips required. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

FIRE B72i EMT 1 - Non-ambulance Recertification (1 unit)

Updates the skills of EMT 1- Non-Ambulance Certificate holders as prescribed by law. Reviews and updates material in 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 B83e S-230 Single Resource Boss Crew (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 B84s S 260 Fire Business Management Principles

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

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 skills to be taught include communication techniques, terminology, work simplification, application of computational skills, safety procedures, time management, equipment identification and operation, and knife skills and cutting techniques. Provides career and educational program 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 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 Education Foundation of the National Restaurant Association. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect/disc. Field trips may be required. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

FDSV B53 Basic Skills: Basic Foods (2 units)

Basic principles and techniques involved in food preparation and service for child nutrition programs, including schools, child care centers, and family day care homes. Uniforms are required. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect, 54 lab. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

FDSV B55a Foodservice Production I (2.5 units)

Basic principles and techniques involved in commercial and non-commercial food production. Emphasizes recipe standardization, equipment and sanitation/safety principles. Cookery principles relating to stocks, sauces, soups, meats, vegetables, and salads. **Hours:** 45 lect. Field trips may be required. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

FDSV B55b Foodservice Production II (2.5 units)

Basic principles and techniques involved in commercial and non-commercial food production. Emphasizes nutritional standards, equipment, and sanitation/safety principles. Cookery principles relating to poultry, fish and shellfish, sandwiches, hors d'oeuvres, breakfast cookery, and bakery. **Hours:** 45 lect. Field trips may be required. **Offered:** F, S.

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

FDSV B55c Foodservice Production Laboratory (2 units)

Practical experiences in the preparation of foods typical to a dinner house/ala carte menu in the campus restaurant. Work station rotations in kitchen and dining room with emphasis on professional skill development, work ethics and presentation skills for plate service. Uniforms are required. **Prerequisite:** Completion of FDSV B55a or B55b with a grade of "C" or better or concurrent enrollment in FDSV B55a or B55b. **Hours:** 108 lab. Field trips may be required. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

FDSV B55d Foodservice Production Laboratory (2 units)

Practical experiences in the preparation of buffets and garde manger in the campus restaurant. Work station rotations in the kitchen and dining room with emphasis on professional skill development, work ethics and presentation skills for buffet service. Uniforms are required. **Prerequisite:** Completion of FDSV B55a or B55b with a grade of "C" or better or concurrent enrollment in FDSV B55a or B55b. **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 their instructor. **Prerequisite:** FDSV B52, B55a, B55b, B55c and B58. **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 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 B57 Purchasing (3 units)

Discussion of the food purchasing activity for foodservice operations and product information from a managerial

perspective. Emphasis on purchasing policies and procedures, principles of selection and procurement and standard purchase specifications. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect/disc. Field trips may be required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

FDSV B58 Supervision in the Hospitality Industry (3 units)

Emphasizes basic knowledge of the first-line hospitality supervisor's role and responsibilities. Principles of good people management are presented in terms of how they apply on the job. Topics include communications, motivation and work climate, job descriptions, recruitment and selection, performance evaluations, employee discipline, planning, decision making and problem solving, delegation and controlling. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect/disc. Field trips may be required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

FDSV B59 Food Production Management (3 units)

Course provides a basic understanding of food production, kitchen management, and quality control for all segments of the foodservice industry. **Prerequisite:** FDSV B52, B55a, B55b, and B55c or B55d. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect/disc. 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 Clinical Work Experience in Health Care Facilities - Diet Therapy (2 units)

Role and responsibilities of the dietetic service supervisor in health care and community foodservice operations. Application of standards, principles and techniques of basic nutrition, diet therapy, nutrition assessment, patient nutrition education and patient/staff communications. Course provides 90 hours directed unpaid clinical work experience in an approved health care facility. **Prerequisite:** NUTR B10 and completion of or enrollment in NUTR B50. **Recommended:** Reading Level 5 or 6. **Hours:** 90 directed clinical work experience. Field trips may be required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

FDSV B64b Clinical Work Experience in Health Care Facilities - Management (2 units)

Role and responsibilities of the dietetic service supervisor in health care and community foodservice operations. Application of standards, principles and techniques of leadership and

human relations; personnel selection and supervision; fiscal management; evaluation of dietary services; food production and service; purchasing; and sanitation and safety. Course provides 90 hours directed work experience in approved health care facilities. **Recommended:** Reading Level 5 or 6. **Hours:** 90 clinical directed work experience. Field trips may be required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

FDSV B66 Food Based Menu Planning for Child Nutrition Programs (3 units)

Basic principles and procedures of menu planning for Child Nutrition Programs to meet the requirements of the School Meals Initiative for Healthy Children emphasizing food based menu planning. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect/disc. Field trips may be required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

FDSV B67 Child Nutrition Program Management (3 units)

Emphasis on knowledge and skills required by site manager in elementary and high school programs to manage a nutritionally sound, cost effective child nutrition program. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect/disc. Field trips may be required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

FDSV B70a Basic Professional Baking (1 unit)

Commercial production of baked products including yeast breads, quick breads, pies, fruit desserts, cookies and cakes. Decorative work and product presentation are demonstrated. Uniforms are required. **Recommended:** Reading Level 5 or 6. **Hours:** 9 lect, 27 lab. Field trips may be required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

FDSV B70b Professional Table Service (1 unit)

A skills development course covering table settings, types of service, serving techniques, dining room equipment, sales techniques and customer relations. Demonstrations will be presented. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

FDSV B70c Advanced Professional Baking (1 unit)

Commercial production of puff pastry, European-style tortes and cakes, strudels, fruit tarts, bavarians and mousses, basic sauces and fillings, and decorative work and display pieces. Uniforms are required. **Prerequisite:** FDSV B70a. **Hours:** 9 lect, 27 lab. 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. Certificate of completion is awarded from the Educational Foundation of the National Restaurant Associate upon passing the required exam. **Recommended:** Reading Level 5 or 6. **Hours:** 9 lect/disc. **Repeat:** 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

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 5; 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.

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. CAN FREN 2; FREN B1+B2 = CAN FREN SEQ A; BC GE 6; CSU GE C.2; IGETC - Language Other Than English.

FREN B2 Elementary French (5 units)

Continuated 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:** 90 lect. **Offered:** S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. CAN FREN 4; FREN B1+B2 = CAN FREN SEQ A; BC GE 6; CSU GE C.2; IGETC 3.B, Language Other Than English.

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. FREN B3+B4 = CAN SEQ B; BC GE 6; CSU GE C.2; IGETC 3.B, Language Other Than English.

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 6; CSU GE C.2; IGETC 3B, Language Other Than English.

GEOGRAPHY**GEOG B1 Physical Elements of Geography (3 units)**

A study of the basic elements of physical geography; climate, land forms, soils, natural vegetation and their patterns of world distribution. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. CAN GEOG 2; BC GE 5; CSU GE B.1; IGETC 5.A.

GEOG B1L Physical Geography Laboratory (1 unit)

Laboratory assignments designed to accompany GEOG B1 lectures. Maps and mapping, location analysis, earth-sun relationship, weather and climate statistical and regional analysis, topographic maps and landform building processes. Emphasis on spatial relationships of physical environmental elements. **Recommended:** Reading Level 5 or 6, GEOG B1 (may be taken concurrently). **Hours:** 36 lab, 18 quiz/demo. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE 5; CSU GE B.1, B.3; IGETC 5.A.

GEOG B2 Human Geography (3 units)

Introduction to concepts and tools of human geography including origin of cultural landscapes, human modification of natural environments and spatial distribution of population, languages, religions, agriculture, urbanization and industrialization, and political systems. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE 3b, 5; CSU GE D.5; IGETC 4.

GEOLOGY

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

GEOL B1a Physical Geology (4 units)

An introduction to the principles of geology with emphasis on the structure and origin of the earth, its present and past landscapes and the processes at work changing its surface. Includes 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:** Reading Level 5 or 6. **Hours:** 54 lect, 54 lab. At least 1 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 the equivalent course, GEOL B10 and B10L. CAN GEOL 2; BC GE 5; CSU GE B.1, B.3; IGETC 5.A.

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 desiring laboratory experience should either substitute GEOL B1a or enroll in GEOL B10L concurrently with GEOL B10. **Prerequisite:** Reading Level 5 or 6. **Hours:** 54 lect. At least 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 5; CSU GE B.1; IGETC 5.A.

GEOL B10L Introductory 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. Designed for students preparing to teach in the elementary grades and for all non-science majors. **Recommended:** Reading Level 5 or 6, concurrent enrollment in GEOL B10. **Hours:** 54 lab. Field trip required. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE 5; CSU GE B.1, B.3; IGETC 5.A.

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.

Hours: 54 lect. One field trip or equivalent required. **Offered:** S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, 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 the 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.

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 which will permit the examination and recognition of different geological environments. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect. Field trip required. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

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. GERM B1a+B1b+B2 = CAN GERM SEQ A; BC GE 6; CSU GE C.2; IGETC - Language Other Than English.

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. GERM B1a+B1b+B2 = CAN GERM SEQ A; BC GE 6; CSU GE C.2; IGETC 3.B, Language Other Than English.

GERONTOLOGY**GERO B8 Introduction to Social Gerontology (3 units)**

An introduction to social gerontology. Students from a variety of disciplines who work with the elderly or who have a special interest in the aging process will benefit from this course. Topics include historical and cross-cultural perspectives on aging; theories of aging; the biological, psychological, and social aspects of aging; current social and public policies; availability, delivery and use of services for the elderly; death, dying and bereavement and successful aging. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Not open to students who have taken either of the equivalent courses, HMSV B8 or PSYC B8. BC GE 4; CSU GE E.

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/disc. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE 8; CSU GE E.

HLED B5 Drug Awareness-Substance Use/Abuse (1 unit)

History of drug use in athletics, including short and long term effects. The pros and cons of drug screening and/or testing programs-its legal implications. **Hours:** 18 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

HLED B248ab Cooperative Work Experience Education (1-8 units. Limit 16 units)

See WEXP B248ab description.

HLED B249ab Cooperative Work Experience Education (1-4 units. Limit 16 units)

See WEXP B249ab description.

HISTORY

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

HIST B2 World History (3 units)

Interdisciplinary multimedia approach to the development of our interconnected and interdependent modern world since the 16th Century. Emphasis is on comparative history, world systems, modernization theory, cultural diffusion, and ecologies of core/periphery associations. **Hours:** 54 lect. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE 3a; CSU GE D.6; IGETC 3.B, 4.

HIST B3 20th Century History (3 units)

A comparative global history of the 20th century with a special emphasis on the rise of mass society and the role of technology in the modern world. Includes an in-depth examination of historical evidence and interpretation.

Recommended: Reading Level 5 or 6. **Hours:** 54 lect. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE 3a; CSU GE D.6; IGETC 3.B, 4.

HIST B4a European Civilization (3 units)

Survey of the growth of western civilization from its origin to 1650. Focuses on the integration of political, social, and cultural developments. **Recommended:** Eligibility for ENGL B1, Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. CAN HIST 2; BC GE 3a; CSU GE D.6; IGETC 3.B, 4.

HIST B4b European Civilization (3 units)

Survey of the growth of western civilization from 1650 to present. Focuses on the integration of political, social, and cultural developments. **Recommended:** Eligibility for ENGL B1, Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE 3a; CSU GE D.6; IGETC 3.B, 4.

HIST B17a-B17b History of the United States (3-3 units)

Survey of the political, economic and cultural history of the United States from earliest colonial times to the present. HIST B17a (to 1877) includes a study of the U.S. Constitution and Federal Government. HIST B17b (since 1877) includes a study of the state and local government of California. Satisfies the requirements in U.S. Constitution and American history and institutions. HIST B17a is not a prerequisite for HIST B17b. **Hours:** 54 lect for each 3 unit course. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. HIST B17a = CAN HIST 8; HIST B17b = CAN HIST 10; HIST B17a+B17b = CAN HIST SEQ B; BC GE 3a; CSU GE D.6; IGETC 3.B, 4.

HIST B18a History of Early California (3 units)

The political, economic, social and cultural development of California from earliest times to 1870. Includes the Spanish, Mexican, and Early American periods. Satisfies the requirements in U.S. Constitution, American history and institutions. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE 3a; CSU GE D.3, D.6; IGETC 3.B, 4.

HIST B18b Modern California (3 units)

Historical environment of modern California. Emphasis on political, economic, social and cultural development. 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 3a; CSU GE D.3, D.6; IGETC 3.B, 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. Satisfies the requirements in U.S. Constitution, and American history and institutions. **Recommended:** Eligibility for ENGL B1 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 3a; 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 B1 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 3a; 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 1620 to 1890. Emphasis on the social, regional, and multicultural distinctions in the role of American women. Includes women's relationships with California's state and local governments. **Hours:** 54 lect. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE 3a; 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. 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. **Note:** Not open to students who have taken the equivalent course, CHST B30a. BC GE 3a; 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 the aftermath of the U.S.-Mexican War, 1846-1848; the inter-relationship of Mexican

and U.S. history between 1860 and 1910; the effects of the Mexican Revolution of 1910 on the 20th Century experience of Chicanos in the U.S.; and the California State Constitution. Satisfies the requirements in U.S. Constitution, American history, and institutions. **Hours:** 54 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 3a; 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 Colonial system 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 B1. 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 3a; CSU GE D.3, D.6; IGETC 3.B, 4.

HIST B36 History of American Indians (3 units)

Survey of the origins, traditions, lifeway and belief systems of the various American Indians. Emphasis is on the encounter with Anglo American expansion and on the impact of the governmental policies on this indigenous people. **Hours:** 54 lect. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. **Note:** Offered only occasionally. BC GE 3a; CSU GE D.3, D.6; IGETC 3.B, 4.

HORTICULTURE**HORT B51 Master Gardener (3 units)**

Advanced techniques of horticulture and plant propagation, including vegetables, turf and ornamentals, grapes and subtropical fruits, deciduous fruits, nuts and soils. Topics will include soil preparation, planting, fertilization, pruning practices, insect control, weed control, irrigation and harvest. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **Repeat:** 3. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

HORT B52 Master Gardener II (3 units)

Advanced techniques of horticulture and its relation to environmental science including vegetables, turf and ornamentals, grapes, subtropical and deciduous fruits and soils. Topics will include soil preparation, planting, fertilization, pruning practices, insect control, weed control, pesticide selection and behavior, environmental effects of landscape practices, irrigation and harvest. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **Repeat:** 3. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

HOSPITALITY

HOSP B50 Introduction to Hospitality (3 units)

Overview of the careers involving the lodging, food service and tourism industry. Traces the industry's growth and development --both nationally and internationally by reviewing the organization of hotel and food beverage operations, and by focusing on industry opportunities and future trends.

Hours: 54 lect. Field trip required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

HOSP B54 Hotel/Motel Security Management (3 units)

Explains current issues surrounding the need for individualized security programs, examines a wide variety of security and safety equipment and procedures, discusses guest protection and internal security for asset protection, and outlines OSHA regulations that apply to lodging properties.

Hours: 54 lect. Field trips required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

HOSP B56 Housekeeping Management (3 units)

Presents a systematic approach to managing housekeeping operations in the hospitality industry including managing human resources, inventories, and controlling expenses.

Hours: 54 lect. Field trips required. **CCS:** Occupational Education **Not Transferable:** Associate Degree only.

HOSP B58 Hospitality Sales and Marketing (3 units)

Provides students with a solid background in hospitality sales, advertising, and marketing. Main focus is on practical sales techniques for selling targeted markets. **Hours:** 54 lect. Field trips required. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

HOSP B62 Hospitality Industry Computer Systems (2 units)

Information needs of lodging properties and food service establishments; focuses on computer-based property management systems for both front and back office functions; describes hotel sales computer applications and yield management strategies; and focuses on computer-based food and beverage management systems for both service oriented and management oriented functions. **Recommended:** COMS B52a. **Hours:** 36 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

HOSP B66 Hospitality Law (3 units)

Provides an awareness of the rights and responsibilities that the laws grants to or imposes upon a hotelkeeper and illustrates the possible consequences of failure to satisfy legal obligations. **Hours:** 54 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

HUMAN SERVICES

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

HMSV 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 of 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:** Occupational Education. **Transferable:** CSU and private colleges. Note: Not open to students who have taken the equivalent course, PSYC B2. CSU GE E.

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:** 18 hours seminar and 54 hours field work for each unit. **Repeat:** 3 or until a maximum of 8 units is reached. **Offered:** F, S, SS. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

HMSV B8 Introduction to Social Gerontology (3 units)

An introduction to social gerontology. Students from a variety of disciplines who work with the elderly or who have a special interest in the aging process will benefit from this course. Topics include historical and cross-cultural perspectives on aging; theories of aging; the biological, psychological, and social aspects of aging; current social and public policies; availability, delivery and use of services for the elderly; death, dying and bereavement and successful aging. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Not open to students who have taken either of the equivalent courses, GERO B8 or PSYC B8. BC GE 4; CSU GE E.

HMSV B40 Introduction to Human Services (3 units)

Survey of helping institutions and social issues concerning human services; identification of target populations for human services applications; historical perspective of human services in the United States; theoretical perspectives of human services; survey of human services occupations; survey of careers in the human services; development of social policy concerning human services; and an overview of current controversies concerning human services; **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

HMSV 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 on American Indians, black Americans, Chicanos, Chinese Americans, Japanese Americans, other Asian Americans, and Jewish Americans; consideration of women as an oppressed majority sharing characteristics with minorities; international problems of race, ethnicity, and poverty. **Recommended:** SOCI B1 Reading Level 5 or 6, English Level 5. **Hours:** 54 lect. **Offered:** F, S, SS. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. **Note:** Not open to students who have taken the equivalent course, SOCI B45. BC GE 4; CSU GE D.3, D.0; IGETC 4.

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, engineering and interior drawings. Emphasizes basic drafting skills. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect, 18 lab. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

INDR B11 Introduction to Computer Aided Drafting and Design (CAD) (1 unit)

Introductory course utilizing a computer aided drafting and design (CAD) system to obtain graphic solutions, design refinements, 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 for 9 weeks. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

INDR B16 Introduction to 3D Animation (1 unit)

Introductory course utilizing 3D animation software and hardware to obtain photo realistic graphics for use in industrial and broadcast applications. Emphasizes building basic skills necessary to do these applications on an entry level. **Recommended:** INDR B11. **Hours:** 18 lect, 18 lab. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

INDR B20a Computer Aided Drafting and Design (CAD) (3 units)

An intensive study utilizing a computer aided drafting and design (CAD) system to obtain graphic solutions, design refinements, modifications, and delineations of industrial,

architectural, and engineering drawings. Emphasizes basic high technology skills which are necessary to function as an entry-level CAD operator. **Prerequisites:** INDR B11, INDR B10 or equivalent experience to be evaluated by the instructor. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 54 lab. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges.

INDR B20b Computer Aided Drafting and Design (CAD) (3 units)

Continuation of the sequence to utilize the CAD system to obtain graphic solutions, design refinements, modifications, and delineations in working with industrial, architectural, and engineering drawings. Emphasizes basic high technology skills which are necessary to function as an entry-level CAD operator. **Prerequisite:** INDR B20a. **Hours:** 36 lect, 72 lab. Field trips required. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. **Note:** Elective credit only.

INDR B30b Industrial Drawing (3 units)

Fundamentals, techniques, procedures, and practices of industrial drafting and design based upon the American National Standard Drafting Manual of the American National Standards Institute, which includes lettering, basic theory of orthographic projection, freehand detail sketching, use of drafting instruments and equipment, solving multi-views, pictorial sketching and drawing, revolutions, dimensioning practices, shop processes, fasteners, springs and threads, inking, graphs, and general drawing presentation. **Recommended:** INDR B10 with a minimum grade of 'D' or two years of high school drafting with grades of "B" or evaluation by instructor of student's mechanical drawing skills. Reading Level 5 or 6. **Hours:** 36 lect, 72 lab. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

INDR 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:** Minimum one year of high school algebra or MATH BA (may be taken concurrently). **Hours:** 54 lect, 54 lab by arrangement. Field trips required. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. **Note:** Not open to students who have taken the equivalent course, COMS B37.

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 (3.0 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.

INDR B55 Geometric Dimensioning and Tolerancing (1 unit)

An introductory course in the application and interpretation of geometric dimensioning and tolerancing concepts according to the latest revision of ANSI Y 14.5. This course is designed for persons working or preparing to work in the field of drafting, engineering, manufacturing, quality control and inspection. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect. **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 B10 Introduction to Industrial Technology (0.5 unit)

Orientation to Bakersfield College and post-secondary education in California. Survey of various fields of industrial technology, career opportunities and requirements, development of a personal education plan. Satisfies the 0.5 unit educational planning requirement for graduation from Bakersfield College. **Recommended:** Reading Level 5 or 6. **Hours:** 9 lect/disc. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

INDT B50 Managing Quality Organizations (3 units)

Incorporates the systematic approach to constant improvement throughout an organization. Introduces themes, teams, tools/techniques of continuous quality improvement. Emphasizes the quality systems approach to: customer focus; and employee involvement in service, retail and manufacturing situations. **Hours:** 54 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only. **Note:** Not open to students have taken the equivalent course, MGMT B50.

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 B90 Occupational Readiness (5 units)

Survival skills necessary for students to be successful in their occupational area. Units on communication, computation and technical skills emphasize the use of these skills in job related situations. Job survival skills include procedures and processes of securing a job, maintaining a job and work ethics. **Prerequisites:** Concurrent enrollment in either WELD B90 or AUTO B80 or AUTO B90. **Hours:** 200 lect. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

INDT B249ab Cooperative Work Experience Education (1-4 units. Limit 16 units)

See WEXP B249ab description.

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)

Provides the opportunity to explore various segments of woodworking. Development and implementation of meaningful, self-directed studies in areas where the student desires specific technical and related skill development necessary for enrichment or employment. **Prerequisites:** Completion of minimum of 9 units of woodworking courses with a grade of “C” or equivalent experience evaluation 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 limit of 6 units is reached. **CCS:** Occupational Education.

Not Transferable: Not degree applicable.

INDT B275 Special Problems in Automotive (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. **Prerequisites:** Completion of minimum of 9 units of automotive courses with a grade of “C” or evaluation by instructor of automotive 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 B276 Special Problems in Animation (2-3 units. Limit 6 units)

Provides individual students the opportunity to explore processed video animation and production. Development and implementation of meaningful, self-directed studies in areas where students desire specific technical and related skills development necessary for enrichment or employment.

Prerequisite: INDR B16 with a grade of “C” or higher 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.

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 6; CSU GE C.2.

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 6; CSU GE C.2; IGETC 3.B, Language Other Than English.

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 general interest survey and evaluation of the mass media: newspapers, magazines, radio, music industry, television, motion pictures, advertising, public relations and the Internet. The focus is to provide the media consumer with an historical and theoretical perspective within which to better understand the relationship between society and today’s mass communications. Course content discusses the history, relationships, ethics, rights and responsibilities of media 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. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. CAN JOUR 4; BC GE 3b; CSU GE D.8; IGETC 4.

JRNL B2 Beginning Reporting (3 units)

Introduction to journalism through the study of information gathering and reporting techniques. Concentration on research, investigation, interviewing, reporting and writing, demonstrated by mastering basic writing skills applicable in the mass media. Emphasizes news, feature, sports and persuasion writing. **Recommended:** 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. CAN JOUR 2

JRNL B4 Introduction to Public Relations (3 units)

An introduction to public relations in today's society. Includes a survey of the origins of public relations and a study of the definitions, processes, and audiences of public relations. Specifics will include public relations in businesses, as well as associations, volunteer agencies and educational institutions. Includes how to write, prepare and submit release to video/audio and print media. **Recommended:** JRNL B2, Reading Level 5 or 6. **Hours:** 54 lect/disc. Field trips required. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

JRNL B15 Press Photography (3 units)

Study and application of photography as applied to journalism. Practical problems in photo-journalism for news reporting, sports publicity, feature articles and public relations; emphasizes the use of press camera, together with practice in pertinent darkroom techniques. Emphasizes photography for publication. **Recommended:** English Level 6, Reading Level 5 or 6. **Hours:** 36 lect/disc, 54 supervised lab. **Offered:** F. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

JRNL B26 Publication Management (1 unit)

Discusses with the publication advisor(s) content planning and evaluation, art, page, design, ethics and policy. Designed for editors of the campus newspaper and magazine. **Prerequisite:** JRNL B2. **Recommended:** Concurrent enrollment in JRNL B27a. **Hours:** 18 lect. **Repeat:** 3. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

JRNL B27a Newspaper Production (2 units)

Production practicum for the college weekly newspaper offering experience in reporting, headline writing, copy editing, proof reading, layout procedures and computer use. All students on the newspaper major staff should be enrolled. **Recommended:** JRNL B2. **Hours:** 18 lect, 54 lab. Field trips required. **Repeat:** 3. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

JRNL B27e Photography Laboratory for Campus Publications (2 units)

Production practicum for student publications offering experience in taking photographs, editing and sizing, and photo essay design. Qualified student work will be published in student publications. **Recommended:** JRNL B15, English

Level 6, Reading Level 5 or 6. **Hours:** 18 lect, 54 lab. Field trips required. **Repeat:** 3. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

JRNL B52 Multi-Cultural Media Workshop (2 units)

Extensive introduction to various aspects of media, with specific concentration on newspaper journalism. Open to high school juniors and seniors who qualify for concurrent enrollment. **Recommended:** English Level 6, Reading Level 5 or 6. **Hours:** 48 lect, 42 lab. **Offered:** SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

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.

MANAGEMENT

See Business Education

MARKETING

See Business Education

MATHEMATICS

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

MATH BA Elementary Algebra (3 units)

Fundamental concepts and mathematical processes, first degree equations, special products and factoring, fractions and fractional equations, ratios, proportions, radicals, exponents, graphs, simultaneous linear equations, quadratic equations. **Prerequisites:** MATH B50 or MATH B251 and B252 or equivalent pre-algebra course with a grade of "C" or qualifying score on placement assessment. **Recommended:** Reading Level 5 or 6. **Hours:** 90 lect. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Not Transferable:** Associate Degree only. BC GE 7

MATH BB Geometry (3 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 MATH B200a 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 7

MATH BC Plane Trigonometry (3 units)

Definitions of trigonometric functions, graphs of trig functions, use of trig functions in problem solving, derivation of trig identities, verification of trig identities, solution of conditional trig equations, study of inverse trig functions, complex numbers, trig form of complex numbers and DeMoivre’s Theorem. **Prerequisites:** MATH BB or Plane Geometry and MATH BD or MATH B200d or two years of high school algebra or equivalent with a grade of “C.”

Recommended: Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. BC GE 7; CSU GE B.4.

MATH BD Intermediate Algebra (4 units)

Sets and operations, signed numbers, factoring, linear equations, simple and complex fractions, functional notation, simple graphs, exponents and radicals, quadratic equations, the conics, variation, determinants, logarithms, exponential equations, sequences and series and the binomial expansion.

Prerequisite: MATH BA or MATH B200a 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 7

MATH B1 Mathematical Analysis (4 units)

Polynomial, rational, exponential, logarithmic, trigonometric and circular functions, elementary theory of equations, graphing techniques, selected topics from analytic geometry, mathematical inductions, sequences and series, geometric and algebraic vectors, symbolic logic, matrix operations and methods of proof. **Prerequisite:** MATH BC or equivalent with a grade of “C.” **Hours:** 90 lect. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE 7; 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 MATH B200d 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. CAN MATH 34; BC GE 7; CSU GE B.4; IGETC 2.

MATH B4a Mathematics for Elementary School Teaching I (4 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:** Reading Level 5 or 6. **Hours:** 90 lect. **Offered:** F, S. **CCS:** Liberal Arts and Sciences. **Transferable:** 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 B1 or equivalent with a grade of “C.” **Hours:** 72 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences.

Transferable: UC, CSU and private colleges. CAN MATH 18; MATH B6a+B6b = CAN MATH SEQ B; MATH B6a+B6b+B6c = CAN MATH SEQ C; BC GE 7; 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.” **Hours:** 72 lect. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. CAN MATH 20; MATH B6a+B6b = CAN MATH SEQ B; MATH B6a+B6b+B6c = CAN MATH SEQ C; BC GE 7; 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. CAN MATH 22; MATH B6a+B6b+B6c = CAN MATH SEQ C; 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. CAN MATH 24; 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. CAN MATH 26; 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:** CSU and private colleges. CAN MATH 2; BC GE 7; 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. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lab for each unit. Field trip may be required. **Repeat:** 3. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. BC GE 7.

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 MATH B200d 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. CAN STAT 2; BC GE 7; CSU GE B.4; IGETC 2.

MATH B23 Finite Mathematics (3 units)

Includes sets and Venn diagrams, 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, and probability. **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. CAN MATH 12; BC GE 7; 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 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 B50 Modern College Arithmetic and Pre-Algebra (3 units)

A general review of basic arithmetic including the fundamental operations of addition, subtraction, multiplication and division of whole numbers, 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. **Hours:** 72 lect. **Offered:** F, S, SS. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable. **Note:** Not open to students who have taken MATH B251 and B252.

MATH B200a Elementary Algebra (3 units)

Self-paced, open entry/open exit. For description, see MATH BA.

MATH 200d Intermediate Algebra (4 units)

Self-paced, open entry/open exit. For description, see MATH BD.

MATH 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. **Note:** MATH B251 and B252 are equivalent to MATH B50. Not open to students who have taken MATH B50 or AGRI B251.

MATH B252 Sign Numbers and Equations (1 unit)

A general review of signed numbers, exponents and simple algebraic equations. **Prerequisite:** MATH B251 or equivalent arithmetic course with a grade of "C." **Hours:** 24 lab. Open entry/open exit. **Offered:** F, S, SS. **CCS:** Precollegiate - basic skills. **Not Transferable:** Not degree applicable. **Note:** MATH B251 and B252 are equivalent to MATH B50. Not open to students who have taken MATH B50.

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:** 9 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 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:** 54 lect, field trip required. **Offered:** F, S. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges. BC GE 8; CSU GEE.

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 B60 Medical Terminology (2-3 units)

A study of some basic medical terms related to the major body systems. Three units are required for registered and vocational nursing, radiologic technology, medical billing and transcribers. Two units are recommended for nursing assistant and emergency medical technician students. **Hours:** 36 lect/disc for 2 units; 54 lect/disc for 3 units. **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)

Enables health care providers to safely initiate and maintain intravenous therapy and withdraw venous blood in a medical

setting. Course is approved by the California Board of Vocational Nursing and Psychiatric Technicians. **Prerequisite:** Healthcare provider. **Hours:** 27 lect, 9 lab. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

MEDS B67 Basic Patient Skills (3 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. **Recommended:** MEDS B60. **Hours:** 54 lect. **Offered:** F, S, SS. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

MEDS B67L Basic Patient Skills 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. **Prerequisite:** Concurrent enrollment or previous completion of MEDS B67. **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. **Prerequisite:** Concurrent enrollment in MUSC B16. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 36 lab. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE 6; CSU GE C.1; IGETC 3.A.

MUSC B4a-B4b Elementary Theory (3-3 units)

A study of common practice harmony. From the construction of scales, modes, and triads to four-part voice-leading and simple modulations. **Prerequisite:** MUSC B2 or evaluation by instructor of theory fundamentals. 4a: Concurrent enrollment in MUSC B15a; 4b: Concurrent enrollment in MUSC B15b. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect, 36 lab for each 3 unit course. **Offered:** B4a F; B4b S. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. BC GE 6; CSU GE C.1; IGETC 3.A.

MUSC B4c Intermediate Theory-Tonal Counterpoint (3 units)

A study of tonal counterpoint. From an introduction to species counterpoint to composing a 3-voice fugue in 18th century style. **Prerequisite:** MUSC B4b. **Hours:** 54 lect. **Offered:** F. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges.

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-B5c-B5d Class Piano (1-1-1-1 unit)

Open to students beginning the study of piano. Recommended for students preparing to teach in the elementary grades and for music majors specializing in voice or instruments, other than the piano. **Recommended:** B5a: Reading Level 5 or 6, English Level 6, B5bcd in sequence. **Hours:** 36 lab for each unit. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. B5ab: BC GE 6

MUSC B6a-B6b-B6c-B6d Class Voice (1-1-1-1 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:** 6a: 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 6

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 6

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 6

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. **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. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE 6

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. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE 6

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. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE 6

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. **Prerequisites:** Previous experience in a choral group and demonstrated proficiency. **Hours:** 54 lect, 36 lab by arrangement for each 2 unit course. Field trips for performances are required. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE 6

MUSC B15a-B15b Ear Training and Sight Singing (1-1 unit)

Basic drill in the singing and recognition of intervals, scales, and diatonic melodies with solfege syllables. Practice in rhythmic, harmonic, and melodic dictation. Extension of melodic sight singing and dictation to include chromatic passing tones and more complex rhythms. Singing and recognition of the basic varieties of triads and seventh chords. Harmonic dictation; recognition of basic chord patterns and cadences. **Prerequisites:** B15a: Concurrent enrollment in MUSC B4a. B15b: Concurrent enrollment in MUSC B4b.

Recommended: Reading Level 5 or 6. **Hours:** 72 lab for each unit. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE 6

MUSC B16 Beginning Ear Training (1 unit)

Develops aural proficiency and facility in dictation, chord and interval recognition, and rhythm. **Prerequisites:** Concurrent enrollment in MUSC B2. **Hours:** 36 lab. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

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 for credit. **Prerequisites:** Previous experience in a choral group and demonstrated proficiency. **Hours:** 54 lect, 18 lab by arrangement for each 2 unit course. Field trips required. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE 6

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 6; 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. Field trips may be required. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE 6; 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 6; CSU GE C.1; IGETC 3.A.

MUSC B24 A Survey of World Music (3 units)

An introductory course surveying the dominant musical cultures of the new non-western world with comparisons to western music. Emphasizes listening to and participation in world music through lecture, films, recording, live presentations, and class performance. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE 6; 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 6; CSU GE C.1; IGETC 3.A.

MUSC B29a-B29b-B29c-B29d Varsity Pep Band (1-1-1-1 unit)

Home game pageantry and other special events. Emphasizes show style, performance of popular music and band esprit. **Prerequisite:** Audition for skill on a band instrument. **Hours:** 54 lab for each unit. Field trips required. **Offered:** F. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

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

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.

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, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

NURSING, REGISTERED

NURS 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 NURS B1L/B1LV. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

NURS B1g Gerontological Nursing (1 unit)

Provides a foundation for basic gerontological nursing using demographics, theories of aging, and growth and development concepts as a framework for presenting the health problems and special concerns of the elderly. Legal and ethical issues and income, economics, and health care of older adults 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 NURS B1gL/B1LV. **Hours:** 18 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

NURS B1gL Gerontological Nursing Laboratory (1.5 units)

Correlated laboratory experiences are provided with emphasis on the geriatric client. Concepts presented in NURS B1g are applied in various geriatric care facilities. **Prerequisite:** Entrance in the ADN Program or evaluation by program director for skills and knowledge, concurrent enrollment in NURS B1g. **Hours:** 81 laboratory by arrangement. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

NURS B1L Nursing Fundamentals Laboratory (3 units)

Correlated laboratory experiences are provided with adult clients who have basic health problems. Concepts presented in NURS B 1 are applied in medical-surgical units of various hospitals. The student is guided by specific measurable laboratory objectives for each learning experience. **Prerequisite:** Entrance in the ADN Program or evaluation by program director for skills and knowledge, concurrent enrollment in NURS B1. **Hours:** 162 laboratory by arrangement. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

NURS B3a Medical/Surgical Nursing (2 units)

Provides a foundation for theoretical and technical knowledge base to care for adult clients and families. Focus is on identification and treatment of physiological and pathophysiological health problems and to promote and maintain optimal health. Coverage of health problems uses a nursing process approach. **Prerequisites:** Completion of first semester of ADN/VN program or evaluation by program director for skills and knowledge, concurrent enrollment in NURS B3aL. **Hours:** 36 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

NURS B3aL Medical/Surgical Nursing Laboratory (2.5 units)

Correlated laboratory experiences are provided with emphasis on the adult client. Concepts presented in NURS B3a are applied in a variety of hospital settings. **Prerequisite:** Concurrent enrollment in NURS B3a. **Hours:** 135 by arrangement. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

NURS B3b Medical/Surgical Nursing (2 units)

Builds on knowledge from NURS B3a and continues to provide theoretical and technical knowledge base to care for adult clients and families. Focus is further knowledge, identification and treatment of physiological and pathophysiological health problems in caring for clients with higher acuity and more complex comprehensive nursing needs and to promote and maintain optimal health. Coverage of health problems uses a nursing process approach. **Prerequisites:** Completion of the first and second semesters of ADN program or evaluation by program director for skills and knowledge, concurrent enrollment in NURS B3bL. **Hours:** 36 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

NURS B3bL Medical/Surgical Nursing Laboratory (2 units)

NURS B3bL builds on knowledge from NURS B3aL with the continuation of correlated laboratory experiences provided with emphasis on the multiple adult and geriatric clients and families. Concepts presented in NURS B3b are applied in a variety of hospital settings. Laboratory emphasis from the previous semester changes and focuses on knowledge necessary to care for clients with higher acuity and more complex comprehensive nursing needs. **Prerequisite:** Concurrent enrollment in NURS B3b. **Hours:** 108 by arrangement. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

NURS 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 NURS B6L/B91LV. **Hours:** 27 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

NURS B6L Pediatric Nursing Laboratory (1.5 units)

Correlated laboratory experiences are provided with emphasis on the pediatric client. Concepts presented in NURS B6 are applied in various pediatric settings. **Prerequisites:** Completion of first and second semesters of ADN/VN Program or evaluation by program director for skills and knowledge, concurrent enrollment in NURS B6. **Hours:** 81 laboratory by arrangement. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

NURS 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 NURS B7L/B91LV. **Hours:** 27 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

NURS B7L Parent/Newborn Nursing Laboratory (1.5 units)

Correlated laboratory experiences are provided with emphasis on the maternal/newborn client. Concepts presented in NURS B7 are applied in various maternal/newborn facilities. **Prerequisite:** Completion of first semester of ADN program or evaluation by program director for skills and knowledge,

concurrent enrollment in NURS B7. **Hours:** 81 laboratory by arrangement. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

NURS B8 Psychiatric/Mental Health Nursing (2 units)

Provides a foundation for psychiatric/mental health nursing using the nursing process, growth and development concepts and psychosocial principles as the framework for presenting the health problems and special concerns of clients with mental/emotional or chemical dependency problems. Legal and ethical issues, communicating/responding strategies, assessment techniques and treatment approaches are discussed. **Prerequisites:** Completion of first and second semesters of ADN program or evaluation by program director for skills and knowledge, concurrent enrollment in NURS B8L. **Hours:** 36 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

NURS B8L Psychiatric/Mental Health Nursing Laboratory (1.5 units)

Correlated laboratory experiences are provided with emphasis on the psychiatric/mental health client. Concepts presented in NURS B8 are applied in psychiatric and chemical dependency facilities. **Prerequisite:** Completion of first and second semesters of ADN program or evaluation by program director for skills and knowledge, concurrent enrollment in NURS B8. **Hours:** 81 laboratory by arrangement. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

NURS B9 Advanced Medical Surgical Nursing (3 units)

Focus is on the integration of all previous knowledge in assuming the leadership role of the professional nurse providing nursing care at an advanced level to clients with critical and complex disease states and to groups of clients. Coverage of health problems uses a nursing process approach. **Prerequisites:** Completion of first, second, third semesters of ADN program or evaluation by program director for skills and knowledge, concurrent enrollment in NURS B9L. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

NURS B9L Advanced Medical Surgical Nursing Laboratory (5 units)

Correlated laboratory experiences are provided with emphasis on providing care at an advanced level to clients with critical and complex disease states and to groups of clients. Concepts presented in NURS B9 and B10 are applied in a variety of healthcare facilities. **Prerequisites:** Completion of first, second, third semesters of ADN program or evaluation by program director for skills and knowledge, concurrent enrollment in NURS B9 and B10. **Hours:** 270 laboratory by arrangement. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

NURS B10 Nursing Management/Leadership (1.5 units)

Provides a foundation for nursing management/leadership using the nursing process as the framework for presenting concepts and principles of management and leadership. This course integrates all previous knowledge preparing the student to assume the leadership role of the professional nurse and to provide nursing care at an advanced level to clients with critical and complex needs and to groups of clients. Legal and ethical issues, issues of professional practice and the application of leadership skills and management techniques are discussed. **Prerequisite:** Completion of the first, second and third semesters of ADN Program or evaluation by program director for skills and knowledge, concurrent enrollment in NURS B9L. **Hours:** 27 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

NURS B31a Basic Pharmacology - Nursing Concepts (1.5 units)

Provides a foundation for pharmacological nursing by assisting the student to acquire, comprehend, and apply essential knowledge related to drug therapy. 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:** 27 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

NURS B31b Medication Calculations (0.5 unit)

Provides a foundation for pharmacological calculations using the nursing process. Legal and ethical issues and nursing responsibilities associated with medication calculations are discussed. **Prerequisite:** Entrance in the first semester of the ADN or VN Program or evaluation by program director or instructor for skills and knowledge. **Recommended:** MATH BA. **Hours:** 9 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges

NURS 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.

NURS B32 Advanced Pharmacology (2 units)

Provides a foundation of the theoretical and technical knowledge base necessary in meeting pharmacological needs of the client in a variety of settings. Professional issues and concepts for nursing practice related to intravenous therapy are presented including techniques of intravenous therapy and intravenous drug administration. **Prerequisite:** Completion of first semester of RN program or current RN licensure or evaluation by program director for skills and knowledge. **Hours:** 36 lect. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

NURS B50 Advanced VN Pharmacology (1 unit)

Designed to prepare the vocational student nurse to function safely when administering medications to a group of clients. Student will be administering medications to more complex clients and pediatric clients in the laboratory setting. Expounds on principles learned in NURS B31. **Prerequisite:** Appropriate standing in the VN Program and NURS B31ab with a "C" or better. **Hours:** 18 lect. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

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

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 Bridging Nursing Theory to Practice (2.5 units)

Designed for the reentry nursing student, especially the LVN who is pursuing licensure as an RN or the RN who wants to update skills to re-enter the workforce. Review of basic nursing knowledge, skills, and pharmacology. Topics covered include the nursing process, physical assessment, role transition and test-taking techniques. **Prerequisite:** LVN or RN or nursing student. **Hours:** 36 lect, 9 lab. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

NURS B248ab Cooperative Work Experience Education (1-8 units. Limit 16 units)

See WEXP B248ab description.

NURS B249ab Cooperative Work Experience Education (1-4 units Limit 16 units)

See WEXP B249ab description.

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. **Offered:** F, S. **CCS:** Occupational Education. **Not Transferable:** Not degree applicable.

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.

Refer to the Allied Health Department for specific information regarding course descriptions.

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. CAN FCS 2; BC GE 5; CSU GE E.

NUTR B50 Nutrition and Diet Therapy (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 Education

PHILOSOPHY

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

PHIL B6a-B6b Introduction to Philosophy (3-3 units)

A method, problems, and historical approach to philosophy. Epistemology (the study of knowledge), metaphysics (the study of reality), ethics (the study of morality), and philosophy of religion are covered. **Recommended:** B6a: Reading Level 5 or 6, English Level 6. B6b: PHIL B6a or PHIL B10. **Hours:** 54 lect for each 3 unit course. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. PHIL B6a or B6b = CAN PHIL 2; BC GE 6; 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. CAN PHIL 6; BC GE 7; CSU GE A.3, C.2.

PHIL B9 Critical Thinking and 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. **Hours:** 72 lect. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE 7; 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. Instructs 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. CAN PHIL 4; BC GE 6; 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 6; CSU GE C.2; CSU GE E.

PHIL B14 Business and Social Responsibility (3 units)

Moral and social responsibilities of business organizations to their various constituencies emphasizing customers, employees and stockholders. Topics include the nature of capitalism, corporations, basic issues in personnel management, the challenge of reindustrialization, employee responsibilities to organizations, consumer rights, job discrimination and the environment. **Recommended:** Reading Level 5 or 6, English Level 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE 6; CSU GE C.2.

PHIL B32 World Religions: East (3 units)

Survey of two main Eastern religions-Hinduism and Buddhism, and study of other important Oriental religions such as Jainism, Sikhism, 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 6; 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 practices 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 6; CSU GE C.2; IGETC 3.B.

PHIL B37 Introduction to the World's 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 6; 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.

PHIL B261 Philosophical Thinking and Writing Supervised Tutorial Lab (0 units)

Provides supervised lab time during which students may obtain individualized instruction in such areas as philosophical thinking, perspective and organizational strategies, critical analysis and writing methodologies. **Prerequisite:** Concurrent enrollment in PHIL B6a or PHIL B7. **Hours:** 2-90 individualized instruction and supervised lab. Open entry/open exit. **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.

Physical education activity courses are designed to enhance the student's understanding of the development of the individual as an integrated physiological, psychological, and social being. The courses include a study of how internal and external influences interact in human development and behavior within the context of the human life span.

PHED B3adp Through 9

Hours: 36 hours participation unless otherwise indicated.

Repeat: Activity courses, B3adp through B9, may be repeated 3 times. Example: 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. (UC campuses give a maximum of four semester units of credit for appropriate Physical Education Activity courses.) BC GE 9; CSU GE E.

PHED B3adp Adaptive Physical Education Topics (1 unit each)

This series is intended for students with physical challenges. Individualized fitness programs for the physically challenged with group activities designed to involve everyone.

Repeat: 3. Repetitions of adaptive physical education are allowed (beyond three) provided the student participates in at least one additional credit course that is not a physical education class and makes progress toward the stated educational goal as documented in the student's educational plan.

PHED B3adp Adaptive Physical Education.

PHED B3ads Adaptive Physical Education, Swimming

PHED B3adw Adaptive Physical Education, Wheelchair Sports

PHED B5 Team Activities for Women (1 unit)

B5wsb-Softball. BC GE 9

PHED B6 Coeducational Team and Individual Activities (1 unit)

B6a-archery, B6b-bowling, B6bad-badminton, B6bb-basketball, B6bLb-beginning ballet (54 hours – 3 lab for 18 weeks. NOTE: Not open to students with credit in DANC B6bLb), B6dwr deep water running and conditioning, B6fcx-fitness center, B6g-golf, B6gi-intermediate golf, B6hx-health exercises, B6jd-jazz dance (NOTE: Not open to students with credit in DANC B6jd), B6Lg-life guarding, B6md-modern dance (NOTE: Not open to students with credit in DANC B6md), B6pf-physical fitness, B6r-racquetball, B6s-beginning

swimming, B6sa advanced swimming, B6sc-soccer, B6sfx-swim and stay fit, B6si intermediate swimming, B6t-tennis, B6ti-intermediate tennis, B6v-volleyball, B6vi-intermediate volleyball, B6wa water aerobics, B6ww water walking, B6wsi-water safety, B6wt-Weight Training.–**Prerequisite:** B6Lg and B6wsi: Red Cross certificate.

PHED B7 Advanced Team and Individual Activities for Men (1 unit)

B7b-advanced baseball, B7fb-advanced football, B7w-advanced wrestling.

Recommended: Completion of a basic course in the activity.

PHED B9 Advanced Team and Individual Coeducational Activities (1 unit)

B9s-advanced swimming, B9t-advanced tennis, B9tr-advanced track. **Recommended:** Completion of a basic course in the activity.

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

Prerequisite: 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 9; CSU GE E.

PHED B10 Intercollegiate Football (2 units)

PHED B11 Intercollegiate Basketball (Fall-2 units; Spring-1 unit)

PHED B12 Intercollegiate Track and Field (2 units)

PHED B13 Intercollegiate Tennis (2 units)

PHED B14 Intercollegiate Baseball (2 units)

PHED B16 Intercollegiate Golf (2 units)

PHED B17 Intercollegiate Cross-Country (2 units)

PHED B20 Intercollegiate Wrestling (2 units)

Intercollegiate Competition for Women

Prerequisite: 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 9; CSU GE E.

PHED B22 Women's Intercollegiate Tennis (2 units)**PHED B23 Women's Intercollegiate Soccer (2 units)****PHED B24 Intercollegiate Golf for Women (2 units)****PHED B25 Women's Intercollegiate Volleyball (2 units)****PHED B26 Women's Intercollegiate Track and Field (2 units)****PHED B27 Women's Intercollegiate Cross-Country (2 units)****PHED B28 Women's Intercollegiate Basketball (Fall-2 units; Spring-1 unit) Repeat: 3.****PHED B29 Women's Intercollegiate Softball (2 units)****PHED B30 Dance and Cheer Techniques (1-2 units)**

Instruction, training and practical experience in the techniques for the development of pep routines. Activities include choreography and composition of routines and dance preparations for various college and community service performances. Attendance at athletic games and rallies is required. **Hours:** 90 hours by arrangement for each unit. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges. **Note:** Elective credit only. BC GE 9; CSU GE E.

PHED B31 Standard First Aid (1 unit)

Administering first aid in emergency and accident situations. Includes wounds and their care, shock, artificial respiration, C.P.R., injuries, burns, effects of heat and cold and the transportation of the injured. Upon successful completion, each student will qualify for an American Red Cross Standard First Aid card and an American Heart Association Heartsaver Participation 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, nutrition, 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 9; 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 9; CSU GE E.

PHED B38 Sport Emergencies and Safety Training (1 unit)

Designed to prepare coaches and people involved in sports for dealing with sports related emergencies, early first aid injury care and safety. Certification through American Red Cross in Sport Safety Training (optional). **Hours:** 9 lect, 27 lab. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. **Note:** Elective credit only.

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. Various physical therapy modalities will be discussed. The athletic trainer 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. **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. **Offered:** S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

PHED B43 Title 22 Certification (1 unit)

Course covers CPR, first aid, basic life support and childbirth for the professional rescuer. Upon successful completion, Red Cross Title 22 certification will be given. **Hours:** 18 lect. **Offered:** S. **Repeat:** 3. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

PHED B44a Theory of Soccer I (1 unit)

Designed to provide students the opportunity to master coaching techniques, coaching philosophy, practice organization and strategies involved in the game of soccer. Emphasis is on the techniques of the game. **Hours:** 18 lect. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges. Note: elective credit only.

PHED B44b Theory of Soccer II (1 unit)

Designed to provide students the opportunity to master coaching techniques, coaching philosophy, practice organization and strategies involved in the game of soccer. Emphasis is on team concepts. **Recommended:** PHED B44a. **Hours:** 18 lect. **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 offensive and defensive football. Also covers practice planning, drills, game preparation and coaching. **Recommended:** Concurrent enrollment in PHED B10. **Hours:** 90 lect. **Offered:** F. **Repeat:** 3. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

PHED B47 Theory of Baseball (2 units)

Designed to provide students the opportunity to master coaching techniques, coaching philosophy, practice organization, and strategies involved in the game of baseball. **Hours:** 36 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 9

PHED B52 Cardiopulmonary Resuscitation (0.5 unit)

Initial or retraining course in C.P.R. Upon completion the student will qualify for an American Heart Association Heartsaver Participation Card. **Hours:** 9 lect/disc. **Offered:** F, S. **Repeat:** 3. **CCS:** Liberal Arts & Sciences. **Not Transferable:** Associate Degree only.

PHED B55 Introduction to Coaching (2 units)

Provides state certification for part-time coaches for recreation programs and grades K through 12. Covers C.P.R. certification, sports medicine and first aid. Sports physiology, sports psychology, coaching theory and responsibilities, and practice organizations. **Hours:** 27 lect, 18 lab. **CCS:** Liberal Arts & Sciences. **Not Transferable:** Not degree applicable.

PHYSICAL SCIENCE

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

PHSC B11 General Physical Science (4 units)

A survey of the basic physical phenomena of mechanics, heat, light, sound, electricity, chemistry, geology, meteorology, and astronomy. Emphasizes basic principles, relationships, status and applications to modern civilization. Topics are developed with a minimum of mathematical presentation. Designed for all non-science, industrial technology and education majors. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect/demo/disc, 54 lab. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE 5; CSU GE B.1, B.3; IGETC 5.A.

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.

PHSC B248ab Cooperative Work Experience Education (1-8 units. Limit 16 units)

See WEXP 248ab description.

PHSC B249ab Cooperative Work Experience Education (1-4 units. Limit 16 units)

See WEXP 249ab description.

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 BC (may be taken concurrently). **Recommended:** Reading Level 5 or 6. **Hours:** 72 lect, 54 lab. Offered: F. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. CAN PHYS 2; PHYS B2a+B2b = CAN PHYS SEQ A; BC GE 5; 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, most other pre-professional and technical majors. **Prerequisites:** MATH BC and MATH BD and either PHYS B2a or high school physics with a "C". **Hours:** 72 lect, 54 lab. Offered: S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. CAN PHYS 4; PHYS B2a+B2b = CAN PHYS SEQ A

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, 18 disc, 54 lab. Offered: S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. CAN PHYS 8; PHYS B4a+B4b+B4c = CAN PHYS SEQ B; BC GE 5; 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, 18 disc, 54 lab. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. CAN PHYS 12; PHYS B4a+B4b+B4c = CAN PHYS SEQ B

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, relativity, quantum physics, quantum mechanics, atomic and molecular physics, solid state physics, and nuclear physics. Emphasizes principles, laws, and problem solving. **Prerequisite:** PHYS B4b. **Recommended:** Concurrent enrollment in MATH B6d. **Hours:** 54 lect, 54 lab, 18 disc. **CCS:** Liberal Arts and Sciences. **Transferable:** UC, CSU and private colleges. CAN PHYS 14; PHYS B4a+B4b+B4c = CAN PHYS SEQ B)

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. Satisfies the requirements in U.S. Constitution, American history and institutions and state and local government. **Hours:** 54 lect. Offered: F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. CAN GOVT 2; BC GE 3a; 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. **Hours:** 54 lect. Offered: F. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE 3b; 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. **Hours:** 54 lect. Offered: S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE 3b; 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, 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 B6 Introduction to Behavioral and Social Science Research (3 units)

Emphasizes behavioral and social science research, including research design, data collection and analysis, and the development of basic computer skills. Students will collect and analyze data from experiments, questionnaires, polls and a variety of methodologies. **Recommended:** PSYC B5 or MATH B22, 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 courses, PSYC B6 or BEHS B6.

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 systems; the political environment; party, interest group, citizen and media inputs; current problems and changing functions affecting local governments. **Hours:** 54 lect. **Offered:** F. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. BC GE 3a; 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. **Hours:** 54 lect. **Offered:** S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. BC GE 3b; 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:** 36 lect 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: 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. CAN PSY 2; BC GE 4; 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 functioning of brain structures and brain chemistry in learning, memory, motivation, emotion, sensation, perception, states of consciousness, pain, and psychopathology: other areas include coverage of genetics, the nervous system and its structures and processes, stress and health, and endocrinology. Various methods of scientific inquiry will be studied, particularly experimental. Designed for psychology majors planning for upper division work in psychology.

Prerequisite: PSYC B1A **Hours:** 54 lect/disc. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

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 of 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 (4 units)

Statistics as applied to the behavioral and social sciences. Emphasizes research design, the organization of data, measures of central tendency and variability, the normal curve, correlation and regression, hypothesis testing, parametric and nonparametric techniques, and one-way and two-way analysis of variance. **Prerequisites:** MATH BD. Introductory course in Psychology, Sociology, Anthropology, Economics or Political Science (may be concurrently enrolled). **Recommended:** Reading Level 5 or 6, English Level 5. **Hours:** 90 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, BEHS B5. CAN PSY 6; BC GE 7; CSU GE B.4.

PSYC B6 Introduction to Behavioral and Social Science Research (3 units)

Emphasizes behavioral and social science research, including research design, data collection and analysis, and the development of basic computer skills. Students will collect and analyze data from experiments, questionnaires, polls and a variety of methodologies. **Recommended:** PSYC B5 or MATH B22, 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 courses, BEHS B6 or POLS B6.

PSYC B8 Introduction to Social Gerontology (3 units)

An introduction to social gerontology. Students from a variety of disciplines who work with the elderly or who have a special interest in the aging process will benefit from this course. Topics include historical and cross-cultural perspectives on aging; theories of aging; the biological, psychological, and social aspects of aging; current social and public policies; availability, delivery and use of services for the elderly; death, dying and bereavement and successful aging. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. Field trips required. **CCS:** Occupational Education. **Transferable:** CSU and private colleges. Not open to students who have taken either of the equivalent courses, GERO B8 or HMSV B8. BC GE 4; CSU GE E.

PSYC B20 Social Psychology (3 units)

Examines the effects of group behavior on the individual, including, but not limited to, the study of conformity, mass communication, propaganda, persuasion, attitude formation, and attitude change. Also discusses self-justification, pro-social behavior, aggression, prejudice, attraction, attribution, perception, motivation, and interpersonal relations. Includes the application of the scientific method and research strategies in social psychology. **Recommended:** SOCI B1 or PSYC B1a. **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 B31 Marriage (3 units)

An opportunity for students to gain knowledge about the institution of marriage, including historical aspects of marriage and family life. Major emphasis is on attitudes, feelings, communication, and adjustment to marriage in a changing society. **Recommended:** Reading Level 5 or 6, English Level 5. **Hours:** 54 lect/disc. **Offered:** F. **CCS:** Liberal Arts & Sciences. **Transferable:** 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 & Sciences. **Transferable:** UC, CSU and private colleges. CSU GE E.

PSYC B37 Psychology of Gender Roles (3 units)

Images of men and women in history and mythology, sex differences in theories of development, stages of adjustment, abilities, achievement, and motivation, biological influences on behavior, sexuality, minority group sex roles, and cross-cultural perspectives on sex roles. Includes emphasis on application of the aforementioned theoretical knowledge to the life of the student. **Prerequisite:** PSYC B1a. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

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. **Prerequisite:** PSYC B1a. **Hours:** 54 lect. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. IGETC 4.

PSYC B45 Behavior Modification (3 units)

Basic principles of learning theory and their application to behavioral change introduced. Operant conditioning, techniques based upon operant conditioning, classical conditioning, techniques based upon the classical conditioning model, observational learning, and techniques based upon observational learning are included. Covers a comparison of the medical/learning model of mental illness, and a unit of physiological feedback. **Prerequisite:** PSYC B1a **Hours:** 54 lect/disc. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges.

PUBLIC ADMINISTRATION**PADM B1 Introduction to Public Administration (3 units)**

Overview of the historical roots and contemporary status of administration of public programs; their leadership, design, organization, structure, control, planning, resources, financial management, human resources, policy and program evaluation and improvement. Examines problems and trends in federal state and local government as well as nonprofit organizations as a career field. **Hours:** 54 lect. **Offered:** S. **CCS:** Occupational Education. **Transferable:** CSU Bakersfield.

PADM B248ab Cooperative Work Experience Education (1-8 units. Limit 16 units)

See WEXP B248ab description.

PADM B249ab Cooperative Work Experience Education (1-4 units. Limit 16 units)

See WEXP B249ab description.

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)

Introduces the radiography student with basic concepts of patient care. 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 Tech-

nology 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, abdomen, lower and upper extremities 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 skull, reproductive system, mammography, and related pediatric 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, technical factors affecting the x-ray beam, beam restriction, filtration, and radiation absorption. Covers accessory supplies and equipment, grids, intensifying screen and holders, radiographic film, processing and sensitometry. **Prerequisites:** 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 and distortion. Manipulation of exposure factors, automatic exposure control, and quality control analysis. Principles of mobile radiography, fluoroscopy and tomography. **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 unit)

Orientation to clinical education including introduction to patient transportation techniques, film processing, office reception and filing procedures. Observation and introduction to basic radiographic procedures stressing radiation safety

and protection. Techniques of cardiopulmonary resuscitation.

Prerequisites: Acceptance into the radiologic technology program. **Hours:** 48 clinical experience plus 6 hours by arrangement. **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)

Physics of electromagnetic radiation, electricity, current, resistance, and interaction of radiation with matter. Types of x-ray machines, circuitry, x-ray tubes, production of x-rays and radiation protection safety. **Prerequisite:** Enrollment in Radiologic Technology Program. **Hours:** 90 lect/disc. **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 (7.0 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, 422 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:** Completion of second summer session of Radiologic Technology Program. **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 by instructor of student's x-ray technology 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 to perfect skills in advanced radiographic procedures. Case studies of radiographic procedures discussing anatomy, pathology, positioning and technical factors of image quality are analyzed on a case-by-case basis. Correlated with RADT B2c. **Prerequisite:** Completion of second summer session of Radiologic Technology Program. **Hours:** 384 clinical experience 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 radiography. 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)

Instruction in the fundamental concepts of radiation protection with review of current California Health and Safety codes pertaining to radiologic technology. Biological effects on living systems, as well as radiation units, dose determinations, and personnel monitoring are included. **Prerequisite:** Current enrollment in Radiologic Technology Program. **Hours:** 36 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 and 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 Education

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 6; CSU GE C.2; IGETC - Language Other Than English.

SENIOR STUDIES**SENR B90 Topics in Senior Activity (0 units)**

Topics may include travelogue-lectures, arts and crafts, physical fitness, oil painting, China painting and community chorus. Regular or emergent curriculum adapted or designed to meet the needs, interests and capabilities of senior citizens who seek instruction without college credit, examination or grades. For senior citizens and for other adults interested in senior programs. **Hours:** 18-108 lect/demo or activity. **CCS:** Community Education - Community & Civic Development. **Not Transferable:** Not degree applicable.

SENR B97 Safety and Security for Seniors (0 units)

Curriculum adapted or designed to meet the needs, interests, and capabilities of senior citizens who seek instruction without college credit, examinations or grades. Topics on safety and security presented as workshops, lectures and lectures series, six to eighteen week discussion/lecture/demonstration classes, and computer-assisted classes. **Hours:** 2-108 lect/lab or activity. **CCS:** Community Education-Community & Civic Development. **Not Transferable:** Not Degree Applicable.

SENR B98 Self Management for Seniors (0 units)

Curriculum adapted or designed to meet the needs, interests, and capabilities of senior citizens who seek instruction without college credit, examinations or grades. Topics on self management presented as workshops, lectures and lecture series, six to eighteen week discussion/lecture/demonstration classes, and computer-assisted classes. **Hours:** 2-108 lect/lab or activity. **CCS:** Community Education-Community & Civic Development. **Not Transferable:** Not Degree Applicable.

SMALL BUSINESS

See Business Education

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. CAN SOC 2; BC GE 4; 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. CAN SOC 4; 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 effects of group behavior on the individual, including, but not limited to, the study of conformity, mass communication, propaganda, persuasion, attitude formation, and attitude change. Also discusses self-justification, pro-social behavior, aggression, prejudice, attraction, attribution, perception, motivation, and interpersonal relations. Includes the application of the scientific method and research strategies in social psychology. **Recommended:** SOCI B1 or PSYC B1a. **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. BC GE 4; 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 on American Indians, black Americans, Chicanos, Chinese Americans, Japanese Americans, other Asian Americans, and Jewish Americans; consideration of women as an oppressed majority sharing characteristics with minorities; international problems of race, ethnicity, and poverty. **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 4; CSU GE D.3, D.0; IGETC 4.

SOIL

SOIL B1 Introduction to Soil Science (3 units)

Problems pertaining to the soil which are important in the profitable production of crops and natural resource management, physical properties of soils, fertilizers, crop rotation, erosion and alkali control, cultivation problems and irrigation. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect, 90 lab. Field trips required. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** UC, CSU and private colleges. CAN AG 14; BC GE 5

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 listening comprehension and oral production. **Prerequisite:** B1b: SPAN B1a. **Recommended:** Reading Level 5 or 6. **Hours:** B1a: 54 lect; B1b: 54 lect; Blab: 90 lect. **Offered:** F, S, SS. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. CAN SPAN 2; SPAN B1a+B1b+B2a+B2b = CAN SPAN SEQ A; BC GE 6; CSU GE C.2; IGETC-Language Other Than English.

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. **Prerequisite:** SPAN B1ab or three years of high school Spanish, B2b: SPAN B2a. **Hours:** B2a: 54 lect; B2b: 54 lect; B2ab 90 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. CAN SPAN 4; SPAN B1a+B1b+B2a+B2b = CAN SPAN SEQ A; BC GE 6; CSU GE C.2; IGETC 3.B, Language Other Than English.

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. **Prerequisite:** SPAN B2ab. **Hours:** 72 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. SPAN B3+B4 = CAN SPAN SEQ B; BC GE 6; CSU GE C.2; IGETC 3.B, Language Other Than English.

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. SPAN B3+B4 = CAN SPAN SEQ B; BC GE 6; CSU GE C.2; IGETC 3.B, Language Other Than English.

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 6; CSU GE C.2.

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

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

SPCH B1 Speech Communication (3 units)

Instruction in the composition, presentation and evaluation of original speeches and critical assessment of other communication events. Emphasizes topic selection, research, organization, development, delivery, audience analysis and critical analysis of persuasive communication. **Recommended:** English Level 6, Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. CAN SPCH 4; BC GE 2; CSU GE A.1; IGETC 1.C.

SPCH B2 Interpersonal Communication (3 units)

Introduction to all aspects of the communication process, including intra and inter-personal communication, as well as public speaking. Emphasizes an understanding of communication in everyday life in conjunction with a knowledge of how to present ideas, thoughts and feelings. **Recommended:** English Level 6, Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. BC GE 2

SPCH B3 Business Communications (3 units)

An introduction to organizational communication. Instruction in group communication, listening, conflict resolution, leadership, employee phases and interviewing. Emphasizes understanding of communication in the work place and related group processes. **Recommended:** English Level 6, Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. **Note:** Not open to students who have taken the equivalent course, BUS B3. BC GE 2

SPCH B4 Persuasive Communication (3 units)

Principles and practices of persuasion in various communication settings. Prepare and deliver persuasive speeches for specific audiences. **Hours:** 54 lect. **CCS:** Liberal Arts and Sciences. **Transferable:** CSU and private colleges.

SPCH B5 Rhetoric and Argumentation (3 units)

Theoretical and practical aspects of argumentation (both general and legal) and public debate. Emphasis is on composition, presentation and evaluation of speeches of argumentation and debate, research, structuring arguments, evaluating argumentation, analysis, refutation and rebuttal. **Recommended:** English Level 6, Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. CAN SPCH 6; CSU GE A.3.

SPCH B21 Oral Interpretation (3 units)

Study of the theoretical and technical aspects involved in the selection, analysis, and oral performance of literature from a wide range of world cultures as well as American ethnic groups. Includes participation in various types of performance exercises including presentation of prose, poetry, drama and group ensemble. **Recommended:** English Level 6, Reading Level 5 or 6. **Hours:** 54 lect/disc. **Offered:** F. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges. BC GE 6

SPCH 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.

SPCH 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.

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. Required for the associate's degree. 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 Decision Making, Educational Planning, and Job Search Strategies (3 units)

Assists students in choosing a career, selecting a major, and developing an educational plan. Includes overview of the career decision making process and provides an introduction to job search strategies. Through assessment and exercises, the student will become more aware of interests, values and skills in order to set and achieve career 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/disc. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** CSU and private colleges. Elective credit only. CSU GE E.

STDV B4 Introduction to College for International Students (1 unit)

Designed to give international students a practical training in studying effectively, the techniques for survival within the college setting, and making their educational plan for college studies. Satisfies 0.5 unit educational planning requirement for graduation from Bakersfield College. **Recommended:** Reading Level 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 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. Required for the associate's degree. Satisfies the 0.5 unit educational planning requirement for graduation from Bakersfield College. **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.

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 6; 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. THEA B2a = CAN DRAM 8; BC GE 6; CSU GE C.1.

THEA B3a-B3b-B3c-B3d Applied Acting Problems (2-2-2-2 units)

A study and application of the various theories of acting, utilizing a variety of improvisational and scripted exercises and performance pieces. Recommended: Reading Level 5 or 6. **Hours:** 18 lect, 54 lab for each 2 unit course. **Offered:** F, S. **CCS:** Liberal Arts & Sciences. **Transferable:** UC, CSU and private colleges.

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. CAN DRAM 12; BC GE 6; 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. CAN DRAM 14; BC GE 6; 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 6; 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 performance and 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 6; 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 6; 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 6; 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 6

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 6

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 6; 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 6; 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 6; 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 6; 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 6

THEA B249ab Cooperative Work Experience Education (1-4 units. Limit 16 units)

See WEXP 249ab description.

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 B55ab 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:** Not degree applicable.

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-B1b Introduction to the Welding Processes (1.5-1.5 units)**

Properties and characteristics of metals and a survey of metal welding processes. Safety, theory, and practical experience in oxy-acetylene welding and cutting, shielded metal arc, PAC, MIG, TIG, submerged ARC, resistance welding and joint design, codes and weld testing. **Recommended:** Reading Level 5 or 6. **Hours:** 18 lect, 36 lab for each 1.5 unit course. **Offered:** F, S. **CCS:** Occupational Education. **Transferable:** CSU and private colleges.

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. **Prerequisite:** WELD B54a with a grade of "C" or evaluation by instructor of student's equivalent experience. **Recommended:** Reading Level 5 or 6. **Hours:** 54 lect. **Offered:** S. **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 B74a-B74b TIG and MIG Welding (1.5-1.5 units)

Theory and application of TIG, MIG, Fluxcore, and Submerged welding processes. Emphasizes safe and proper operation of these welding processes while welding on mild steel, aluminum, and stainless steel. **Recommended:** WELD B1a or WELD B53a or one year work experience as a welder. **Hours:** 18 lect, 36 lab for each 1.5 unit course. **Offered:** F. **CCS:** Occupational Education. **Not Transferable:** Associate Degree only.

WELD B90 General Welding (12 units)

Entry-level welding skill development in modern welding and cutting processes, theory and practice. **Prerequisites:** Concurrent enrollment in INDT B90. **Hours:** 80 lect, 320 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 Creative Woodworking (3 units)

Basic woodworking processes and materials, use and care of hand tools, limited machine use, wood finishing, lathe turning, bent lamination, and hand carving. **Recommended:** Reading Level 5 or 6. **Hours:** 36 lect, 72 lab. **Offered:** F. **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 B248ab Cooperative Work Experience Education (1-8 units. Limit 16 units)

College credit for learning experiences obtained on the job in accordance with a training plan developed cooperatively between the employer, college, and student. Major or occupational goal must be job related. **Prerequisites:** Declared major or occupational goal and evaluation by Work Experience Director of student's qualifications and objectives. **Hours:** B248a: 75 hours per semester, per credit unit at a paid job; B248b: 60 hours per semester credit 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 B249ab Cooperative Work Experience Education (1-4 units. Limit 16 units)

College credit for learning experiences obtained on the job in accordance with a training plan developed cooperatively between the employer, college and student. **Prerequisites:** Declared major or occupational goal, concurrent enrollment in seven or more units (including CWEE units, except summer school) and evaluation by Work Experience Director of student's qualifications and objectives. **Hours:** B249a: 75 hours per semester, per credit unit at a paid job; B249b: 60 hours per semester credit 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 B250ab General Work Experience Education (1-3 units. Limit 6 units)

Offers students an opportunity to combine a planned occupational program with progressive on-the-job experience (OJT) and practical learning experiences in the world of work. **Prerequisites:** (a) pursue a planned work experience program, (b) concurrent enrollment in seven or more units (including GWE units) except summer school, (c) evaluation by Work Experience Director of student's planned work experience program, qualifications and objectives. **Hours:** B250a: 75 hours per semester credit per credit unit at a paid job; B250b: 60 hours per semester credit 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.