

**AMT 190 Occupational Work Experience/Aviation****Units:** 1-4 **Hours:** 20 Laboratory**Required:** Declared vocational major. Concurrent in seven or more units (including CWE units, except for summer school. For summer school, enrollment in one other class is required). Minimum 2.00 G.P.A.**Transferable:** CSU

College credit for learning experience obtained on the job in accordance with a training plan developed cooperatively between the employer, college and student. 75 hours per semester per unit or 60 hours per semester for unpaid experience. This is a pass/no pass course. May be taken for a maximum of 16 units of work experience units.

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**Beauty School: see Cosmetology**

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**BIOLOGICAL SCIENCE****BIO 1 General Biology****Units:** 4 **Hours:** 3 Lecture, 3 Laboratory**Prerequisite:** Biological Science 10 with a grade of 'C' or better and Mathematics 233 with a grade of 'C' or better.**Advisory:** Chemistry 30A; eligible for English 250 and English 260.**Transferable:** CSU; UC; CSU-GE: B2, B3; IGETC: 5B; GAV-GE: B2, B3; CAN: BIOL 2, BIOL SEQ. A  
A general biology course with an emphasis on the structure and function of cells, cell respiration, photosynthesis, cell cycle, Mendelian and non-classical genetics, evolution and diversity of life. The course is required for students majoring in biology and/or its subcategories (e.g., plant or animal sciences).**BIO 4 General Zoology****Units:** 4 **Hours:** 3 Lecture, 3 Laboratory**Prerequisite:** Mathematics 233 with a grade of 'C' or better.**Advisory:** Eligible for English 250 and English 260.**Transferable:** CSU; UC; CSU-GE: B2, B3; IGETC: 5B; GAV-GE: B2, B3; CAN: BIOL 4, BIOL SEQ. A

The classification, ecology, evolution and systems analysis of biological functions in major taxonomic groups of animals from Protists through to Chordata.

**BIO 5 General Botany****Units:** 4 **Hours:** 3 Lecture, 3 Laboratory**Prerequisite:** Mathematics 233 with a grade of 'C' or better.**Advisory:** Biological Science 10, eligible for English 250 and English 260.**Transferable:** CSU; UC; CSU-GE: B2, B3; IGETC: 5B; GAV-GE: B2, B3; CAN: BIOL 6, BIOL SEQ. A

This course is designed for students majoring in botany and/or its related disciplines. The course includes the study of the ecology, evolution, anatomy, physiology and systematics of plants as well as the use of plants in biotechnology and agriculture.

**BIO 7 Human Anatomy****Units:** 4 **Hours:** 2 Lecture, 6 Laboratory**Prerequisite:** Biological Science 10 or 15 with a grade of credit or C or better.**Advisory:** Eligible for English 250, English 260 and Mathematics 205.**Transferable:** CSU; UC; CSU-GE: B2, B3; IGETC: 5B; GAV-GE: B2, B3; CAN: BIOL 10, BIOL SEQ. B

A functional approach to the gross and microscopic structure of the major systems of the human body. Includes dissection in lab. A cadaver is observed in this course.

**BIO 8 General Microbiology****Units:** 5 **Hours:** 4 Lecture, 3 Laboratory**Prerequisite:** Biological Science 10 or 15 with a grade of credit or C or better.**Advisory:** Chemistry 30A; eligible for English 250, English 260 and Mathematics 205.**Transferable:** CSU; UC; CSU-GE: B2, B3; IGETC: 5B; GAV-GE: B2, B3; CAN: BIOL 14

An introduction to microbiology with an emphasis on bacteriology. Includes the study of morphology, physiology and classification of microorganisms, a survey of infectious disease, immunology and techniques for culture and control of microorganisms. This course is also listed as Allied Health 8.

**BIO 9 Human Physiology****Units:** 5 **Hours:** 4 Lecture, 3 Laboratory**Prerequisite:** Biological Science 7 or 15 with a grade of credit or C or better.**Advisory:** Chemistry 30A; eligible for English 250, English 260 and Mathematics 205.**Transferable:** CSU; UC; CSU-GE: B2, B3; IGETC: 5B; GAV-GE: B2, B3; CAN: BIOL 12, BIOL SEQ. B

A study of the functions of the major organs and organ systems of the human body, emphasizing control at the cellular level, integration of systems and homeostasis of the human body. This course is also listed as Allied Health 9.

**BIO 10 Principles of Biology****Units:** 4 **Hours:** 3 Lecture, 2 Laboratory**Advisory:** Eligible for English 250, English 260 and Mathematics 205.**Transferable:** CSU; UC; CSU-GE: B2, B3; IGETC: 5B; GAV-GE: B2, B3

An introductory biology course covering functions at the cellular and organismal levels. Includes study of the basic principles of metabolism, heredity, evolution and ecology. Primarily for non-biological science majors.

**BIO 11 Nutrition****Units:** 3 **Hours:** 3 Lecture**Prerequisite:** Eligible for English 250 and English 260**Advisory:** Chemistry 30A and Mathematics 205**Transferable:** CSU; UC; CSU-GE: E2; GAV-GE: E2; CAN: FCS 2

This course is designed to meet the needs of the Allied Health student and the general education student alike. The major aim of this course is to help the student acquire relevant information about nutrition which they can use professionally and/or personally. The course will cover the practical aspects of normal nutrition, ways to promote sound eating habits throughout the life cycle, and physiological contribution nutrients make to body structure and function. This course is also listed as Allied Health 11.

**BIO 13 Marine Biology****Units:** 4 **Hours:** 3 Lecture, 3 Laboratory**Transferable:** CSU; UC; CSU-GE: B2, B3; IGETC: 5B; GAV-GE: B2, B3

An overview of the ocean as an ecosystem. This course will include segments on the ocean as a physical environment; marine ecology; marine habitats, plant and animal taxonomy. There will be an emphasis of evolutionary adaptations which organisms have for their habitat.

**BIO 15 Survey of Human Anatomy and Physiology****Units:** 5 **Hours:** 4 Lecture, 3 Laboratory**Advisory:** Biological Science 10, Eligible for English 250, English 260 and Mathematics 205.**Transferable:** CSU; UC; CSU-GE: B2, B3; IGETC: 5B; GAV-GE: B2, B3

An introductory study of the structure and function of the human body. Includes study at the cellular and organ system levels, emphasizing integration of systems. Note that a cadaver will be observed in this course. This course is also listed as Allied Health 15.

**BIO 20 Field Biology****Units:** 4 **Hours:** 3 Lecture, 3 Laboratory**Advisory:** Eligible for English 250 and English 260.**Transferable:** CSU; UC; CSU-GE: B2, B3; GAV-GE: B2, B3

An introductory course based on biological principles but emphasizing the ecology, evolution, behavior (where appropriate), structure and function of major groups of organisms including, but not restricted to, invertebrates and vertebrates, fungi and plants. Field trips are required.

**BIO 21 Field Ecology**

**Units:** 1-4 **Hours:** 4 Lecture  
**Advisory:** Eligible for English 250 and Math 205.  
**Transferable:** CSU

Introduces concepts in ecology, plant and animal identification, natural history, and habitat assessment in a field setting. The class will have a two hour preliminary meeting to prepare for two successive meetings to local habitats. Camping is not required. Outings will be rescheduled in the case of inclement weather.

**BIO 30 Remote Sensing of Earth's Resources**

**Units:** 3 **Hours:** 3 Lecture  
**Advisory:** English 1A, Mathematics 205, Computer proficiency recommended.  
**Transferable:** CSU

An overview of the acquisition and utilization of remote sensing data. The course will cover basic physics of optics; basics of film and photography; remote sensing platforms; types of equipment and analysis of data. Emphasis will be on aerial and satellite image acquisition and interpretation. This course is also listed as Geography 30.

**BIOTECHNOLOGY****BIOT 103 Biotechnology Lab Skills and Instrumentation**

**Units:** 4 **Hours:** 2 Lecture, 6 Laboratory  
**Advisory:** Completion of any high school science course with a grade of 'C' or better; eligible for English 250; eligible for Math 205.  
**Transferable:** CSU

Introduction to biotechnology laboratory skills. Techniques will include measuring, aseptic technique and transfer skills, preparation of buffers and other solutions, basic media preparation and dilutions, electrophoresis. Includes use and care of instruments such as microscope, spectrophotometer, centrifuge, pH meter, mechanical and micropipettes, autoclave, and electronic balance. Will also include keeping of a notebook, report writing and calculations.

**BIOT 104 Seminar in Biotechnology**

**Units:** 1 **Hours:** 1 Lecture  
**Transferable:** CSU

This course will survey careers in biotechnology and ethical issues in biotechnology.

**BIOT 105 Advanced Biotechnology Laboratory**

**Units:** 4 **Hours:** 2 Lecture, 6 Laboratory  
**Prerequisite:** BIOT 103, Biotech Lab Skills and Instrumentation.  
**Transferable:** CSU

This course will become active for the fall 2007 semester.

This course is part of the Biotechnology program, and builds on skills learned in Biotechnology 103. Students will learn and apply techniques used in biotechnology research, investigation and production. This course provides hands-on experience with current techniques including DNA isolation and electrophoresis, immunological assays, PCR, cell culture, cloning and gene mapping, DNA extraction and purification, chromatography, and analysis of proteins.

**BUSINESS****BUS 1 Fundamentals of Business**

**Units:** 3 **Hours:** 3 Lecture  
**Advisory:** Eligible for English 250 and English 260.  
**Transferable:** CSU; UC; GAV-GE: D2

This course introduces students to business and the array of opportunities that it offers. The course will help students recognize careers that will be of interest to them with consideration of their own skills and aptitudes. Different facets of business will be covered and students will learn about establishing their own business. This course has the option of a letter grade or pass/no pass. Previously listed as BUS 1.

**BUS 11 Statistics for Business and Economics**

**Units:** 4 **Hours:** 4 Lecture  
**Prerequisite:** Mathematics 233.  
**Transferable:** CSU; UC; CSU-GE: B4; IGETC: 2A; GAV-GE: B4

Statistics for Business and Economics Statistical methods for business/economics analysis; descriptive statistics, inference, correlation and regression, probability, time series analysis. This course has the option of a letter grade or pass/no pass. This course is also listed as ECON 11. Previously listed as BUS 11.

**BUS 14 Personal Finance**

**Units:** 3 **Hours:** 3 Lecture  
**Advisory:** Math 400  
**Transferable:** CSU

This course is designed to assist individuals to analyze their financial affairs for lifelong decision making. Elements and concepts of financial planning and decision making in the areas of budgeting, taxes, borrowing, money management, insurance, investments, retirement, and estate planning will be examined. This course is also listed as ECON 14. This course has the option of a letter grade or pass/no pass. Previously listed as BUS 14.

**BUS 80 Business Law**

**Units:** 3 **Hours:** 3 Lecture  
**Advisory:** Eligible for English 250 and English 260.  
**Transferable:** CSU; UC; CAN: BUS 12

Introduction to the law applicable to business institutions and their operations; social forces and their effect upon the development of law; sources of law, agencies for enforcement, and court procedure and administration agencies. Substantive law, that law which includes rights and duties, will include contracts, agency employment relationships, torts and crimes. This course has the option of a letter grade or pass/no pass. Previously listed as BUS 80.

**BUS 100 Business Correspondence**

**Units:** 3 **Hours:** 3 Lecture  
**Advisory:** CSIS 122, 126 or equivalent; Eligible for English 1A;  
**Transferable:** CSU

Development of business writing techniques and English usage skills for effective communication through various forms of business correspondence. Emphasizes the public relations function of correspondence; covers a review of grammar, punctuation, and job application techniques. This course has the option of a letter grade or pass/no pass. Previously listed as BUS 100.

**BUS 102 Business Mathematics**

**Units:** 3 **Hours:** 3 Lecture  
**Advisory:** Eligible for Mathematics 402 and English 260.  
**Transferable:** CSU

Basic concepts of business mathematics with emphasis on problem solving. Covers arithmetic fundamentals, business applications, percentages, merchandising, accounting, and measuring business performance and success. This course has the option of a letter grade or pass/no pass. Previously listed as BUS 102.

**BUS 190 Occupational Work Experience General Business**

**Units:** 1-4 **Hours:** 3 Laboratory  
**Required:** Declared vocational major. Concurrent enrollment in seven or more units (including CWE units, except for summer school. For summer school enrollment in one other class is required.) Minimum 2.00 G.P.A.  
**Transferable:** CSU

College credit for learning experience obtained on the job in accordance with a training plan developed cooperatively between the employer, college and student. 75 hours per semester per unit or 60 hours per semester for unpaid experience. This is a pass/no pass course. May be taken for a maximum of 16 work experience units. Previously listed as BUS 190.

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**Business Accounting: see Accounting**

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