

AMT 121 Aviation Powerplant Systems Technology**Units:** 14.0 **Hours:** 9.0 Lecture and 15.0 Laboratory**Transferable:** CSU

This course is part of the curriculum required by the Federal Aviation Administration to obtain certification as an aircraft powerplant maintenance technician. This certificate allows the rated technician to perform maintenance, preventive maintenance repairs and alterations to USA FAA certified aircraft powerplants. This section covers theory of operation, maintenance, repair, and troubleshooting procedures of powerplant systems and their relationship to the total powerplant installation package. To include lubrication, electrical systems, instrument systems, fuel metering, fire protection, starting systems, powerplant control systems, and the aerodynamics, theory and maintenance of propellers and their control systems. **ADVISORY:** Successful completion of AMT 100 and 101. Basic hand tools required. Details at the first class meeting.

AMT 123 Independent Study**Units:** 1.0 TO 2.0 **Hours:****Transferable:** CSU

Designed to afford selected students specialized opportunities for exploring areas at the independent study level. The courses may involve extensive library work, research in the community, or special projects. May be repeated until six units of credit are accrued. This course has the option of a letter grade or pass/no pass. **REQUIRED:** The study outline prepared by the student and the instructor must be filed with the department and the dean.

AMT 190 Occupational Work Experience / Aviation**Units:** 1.0 TO 4.0 **Hours:** 5.0 TO 20.0 Laboratory**Transferable:** CSU

Occupational work experience for students who have a job related to their major. A training plan is developed cooperatively between the employer, college and student. (P/NP grading) 75 hours per semester paid work = 1 unit. 60 hours non-paid (volunteer) work per semester = 1 unit. May be taken for a maximum total of 16 units. Minimum 2.00 GPA. **REQUIRED:** Declared vocational major.

Beauty School: see Cosmetology

BIOLOGY

BIO 1 Cell and Molecular Biology**Units:** 4.0 **Hours:** 3.0 Lecture and 3.0 Laboratory**Transferable:** CSU, UC; CSU-GE:B2, B3, IGETC:5B, 5C, GAV-GE:B2, B3

A general biology course with an emphasis on the structure and function of cells, biological molecules, homeostasis, cell respiration, photosynthesis, cell life cycle and its controls, cellular communication, Mendelian and non-classical genetics, evolution and diversity of life. The philosophy of science, methods of scientific inquiry and experimental design are foundational to the course. The course is required for students majoring in biology and/or its subcategories (e.g., plant or animal sciences). (C-ID: BIO 190) **PREREQUISITE:** Biological 10 or Biology 12 or Environmental Science 1 with a grade of 'C' or better, and Chemistry 1A and Mathematics 240 with a grade of 'C' or better. **ADVISORY:** Eligible for English 250 and English 260.

BIO 4 General Zoology**Units:** 4.0 **Hours:** 3.0 Lecture and 3.0 Laboratory**Transferable:** CSU, UC; CSU-GE:B2, B3, IGETC:5B, 5C, GAV-GE:B2, B3

General Zoology is designed for students exploring a career and majoring in Biology. This course uses the animal model to introduce the principles of evolutionary biology. Zoology explores animal diversity and considers the selection pressures of nature that direct animal form and function. Topics include mechanisms of evolution, animal life cycles, embryological development, comparative morphology and physiology, taxonomy and systematics, molecular and morphological phylogeny, ecological principles, organismal behavior and its place in the natural world. **PREREQUISITE:** Mathematics 240 with a grade of 'C' or better. **ADVISORY:** Chemistry 1A, Biology 1 and eligible for English 250 and English 260.

BIO 5 General Botany**Units:** 4.0 **Hours:** 3.0 Lecture and 3.0 Laboratory**Transferable:** CSU, UC; CSU-GE:B2, B3, IGETC:5B, 5C, GAV-GE:B2, B3

General Botany is designed for students majoring in biology and/or its related disciplines. This course introduces the evolution and diversity of botanical organisms and begins with a brief review of plant like organisms (protista and fungi) and continues with an emphasis in the plant kingdom for the remainder of the course. The course will include topics such as life cycles, embryonic development, morphology, physiology, taxonomy and plant systematics. Principles of population ecology, community ecology, ecosystems interactions, biotechnology and agriculture are highlighted in this course. (C-ID: BIOL 155) **PREREQUISITE:** Mathematics 235 or Mathematics 240 with a grade of 'C' or better. **ADVISORY:** Chemistry 1A, Biological Science 1, and eligible for English 250 and English 260.

BIO 7 Human Anatomy**Units:** 4.0 **Hours:** 2.0 Lecture and 6.0 Laboratory**Transferable:** CSU, UC; CSU-GE:B2, B3, IGETC:5B, 5C, GAV-GE:B2, B3

Structural organization of the human body: gross and microscopic structure of the integumentary, skeletal, muscular, nervous, sensory, endocrine, cardiovascular, lymphatic, respiratory, digestive, excretory, and reproductive systems, from cellular to organ system levels of organization. Includes dissection in lab. A cadaver is observed in this course. **PREREQUISITE:** Biological Science 10 or Biology 15 or Biology 12 with a grade of credit or C or better. (C-ID: BIOL 110B) **ADVISORY:** Eligible for English 250, English 260 and Mathematics 430.

BIO 8 General Microbiology**Units:** 5.0 **Hours:** 4.0 Lecture and 3.0 Laboratory**Transferable:** CSU, UC; CSU-GE:B2, B3, IGETC:5B, 5C, GAV-GE:B2, B3

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. **PREREQUISITE:** Biological Science 10 or 15 with a grade of credit or C or better. **ADVISORY:** Chemistry 30A and Chemistry 30B; Eligible for English 250, English 260 and Mathematics 205.

BIO 9 Human Physiology**Units:** 5.0 **Hours:** 4.0 Lecture and 3.0 Laboratory**Transferable:** CSU, UC; CSU-GE:B2, B3, IGETC:5B, 5C, GAV-GE:B2, B3

Study of the physiological principles, function, integration and homeostasis of the human body at the cellular, tissue, organ, organ system and organism level: integumentary system, bone, skeletal, smooth and cardiac muscles, nervous system, sensory organs, cardiovascular system, lymphatic and immune systems, respiratory system, urinary system, endocrine system, and reproduction system. This course is also listed as Allied Health 9. (C-ID: BIOL 120B) **PREREQUISITE:** Chemistry 30A, Biological Science 7 or 15 with a grade of credit or C or Better. **ADVISORY:** Chemistry 30B; eligible for English 250, English 260 and Mathematics 205.

BIO 10 Principles of Biology**Units:** 4.0 **Hours:** 3.0 Lecture and 2.0 Laboratory**Transferable:** CSU, UC; CSU-GE:B2, B3, IGETC:5B, 5C, 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. **ADVISORY:** Eligible for English 250, English 260 and Mathematics 205.

BIO 11 Nutrition**Units:** 3.0 **Hours:** 3.0 Lecture**Transferable:** CSU, UC; CSU-GE:E, GAV-GE:E2, F

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 AH 11. **PREREQUISITE:** Eligible for English 1A. **ADVISORY:** Chemistry 30A and Mathematics 205

BIO 12 Introduction to Human Biology

Units: 4.0 **Hours:** 3.0 Lecture and 3.0 Laboratory
Transferable: CSU, UC; CSU-GE:B2, B3, IGETC:5B, 5C, GAV-GE:B2, B3

This course will provide an introduction to human biology for non-science majors to meet general education laboratory science requirements. It will cover the biologic principles of basic body structure and function including all systems of the body, genetic diseases, and biotechnology. This course satisfies the same general education life science requirements as Biology 10 and Ecology 1.

BIO 13 Marine Biology

Units: 4.0 **Hours:** 3.0 Lecture and 3.0 Laboratory
Transferable: CSU, UC; CSU-GE:B2, B3, IGETC:5B, 5C, GAV-GE:B2, B3

The course provides a comprehensive overview of marine ecosystems, emphasizing the diversity of life inhabiting them. The physical, chemical and ecological features of the marine environment are reviewed and the evolutionary adaptations that allowed marine organisms to survive are emphasized. Although the overall focus will include ecosystems found in both tropical, subtropical, temperate and arctic regions, many of the practical examples will be drawn from the rich ecosystems of the central California coast and labs will provide hands-on experience of the diversity of life forms found in this area. Practical exercises will include viewing of specimen in the laboratory, short documentaries followed by discussion and field trips to coastal locations within the Monterey Bay and vicinity to view and explore specific ecosystems such as kelp forests, the intertidal, and estuarine areas, as well as learn about local marine species such as birds and mammals.

BIO 15 Survey of Human Anatomy and Physiology

Units: 5.0 **Hours:** 4.0 Lecture and 3.0 Laboratory
Transferable: CSU, UC; CSU-GE:B2, B3, IGETC:5B, 5C, 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. **ADVISORY:** Biology 10 or Biology 12 with a grade of 'C' or better. Eligible for English 250, English 260 and Mathematics 205. Course will include the viewing of a cadaver.

BIO 21 Field Ecology

Units: 1.0 TO 4.0 **Hours:** 1.0 TO 4.0 Lecture
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. This course has the option of a letter grade or pass/no pass. **ADVISORY:** Eligible for English 250 and Math 205.

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

Units: 4.0 **Hours:** 2.0 Lecture and 6.0 Laboratory
Transferable: CSU

Introduction to biotechnology laboratory skills. Techniques will include DNA isolation, DNA fingerprinting, cloning, restriction mapping, and Southern blotting. Includes the use and care of instruments such as centrifuges, mechanical and micropipettes, and electronic balances. Will also include keeping of a notebook, report writing, and calculations. **ADVISORY:** Eligible for English 250. **PREREQUISITE:** Completion of BIO 1 with a grade of C or better; may be taken concurrently.

BIOT 104 Seminar in Biotechnology

Units: 1.0 **Hours:** 1.0 Lecture
Transferable: CSU

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

Business Accounting: see Accounting

BUSINESS**BUS 1 Fundamentals of Business**

Units: 3.0 **Hours:** 3.0 Lecture
Transferable: CSU, UC; GAV-GE:D2, F

A survey in business providing a multidisciplinary examination of how culture, society, the economic system, the legal environment, international and political issues, financial institutions, and human behavior interact to affect a business organization's policy and practices within the U.S. and abroad. Demonstrate how these influences impact the primary areas of business including: organizational structure and design, leadership, human resources management, organized labor practices; marketing; organized communication; technology; entrepreneurship; legal, accounting, financial practices; the stock and securities markets; and therefore affect a business's ability to achieve its organizational goals. This course has the option of a letter grade or pass/no pass. Previously listed as GBUS 1. (C-ID: BUS 110) **ADVISORY:** Eligible for English 250 and English 260.

BUS 11 Statistics for Business and Economics

Units: 4.0 **Hours:** 4.0 Lecture
Transferable: CSU, UC; CSU-GE:B4, IGETC:2A, GAV-GE:B4

The use of probability techniques, hypothesis testing, and predictive techniques to facilitate decision-making. Topics include descriptive statistics; probability and sampling distributions; statistical inference; correlation and linear regression; analysis of variance, chi-square and t-tests; statistical analysis including the interpretation of the relevance of the statistical findings. Applications using data from disciplines including business, social science, psychology, life science, health science, and education. Additional and more extensive case studies from business and economics, emphasizing statistical results that provide guidance for business decisions or suggest solutions to contemporary business and economic problems; use of larger data sets analyzed with computer software programs. **PREREQUISITE:** Math 233, or Math 233A and Math 233B, or Math 235, or Math 240, or Math 242 with a grade of "C" or better.

BUS 14 Personal Finance

Units: 3.0 **Hours:** 3.0 Lecture
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. **ADVISORY:** Math 400

BUS 80 Business Law

Units: 3.0 **Hours:** 3.0 Lecture
Transferable: CSU, UC

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 GBUS 80. (C-ID: BUS 125) **ADVISORY:** Eligible for English 250 and English 260.

BUS 100 Business Correspondence

Units: 3.0 **Hours:** 3.0 Lecture
Transferable: CSU; GAV-GE:F

Using word processing software, students will plan, compose, and revise a variety of business documents including letters, emails, reports, and memos. Messages will be analyzed to develop correspondence that is appropriate to the target audience and that is effective and professional. Using presentation graphics software, students will prepare professional level oral reports for a variety of business situations. Also listed as BOT 100. **ADVISORY:** Eligible for ENGL 250 and ENGL 260.