

AFT 122 Instrument Flight Technology**Units:** 3.0 **Hours:** 3.0 Lecture**Transferable:** CSU

Flight instrument usage, regulations, meteorology, chart reading and flight planning to prepare the student to begin flight training in flight solely by reference to flight instruments. **ADVISORY:** AFT 121 or 131, or have passed the FAA Private Pilot written exam

AFT 133 Commercial Flight Operations**Units:** 3.0 **Hours:** 3.0 Lecture**Transferable:** CSU

Air traffic control procedures, meteorology, regulations, aircraft performance, and aerodynamics for students preparing for their Federal Aviation Administration (FAA) commercial pilot's license. **ADVISORY:** Hold private pilot certificate or AFT 121 with a grade of "C" or better. Eligible for English 250 and 260.

AFT 134 Aviation Flight Technology**Units:** 3.0 **Hours:** 3.0 Lecture**Transferable:** CSU

This course includes all aerodynamics, navigation, regulations, airport and airspace requirements, meteorology, and emergency procedures necessary to qualify for a private pilot certificate. **ADVISORY:** Completion of English 250 and English 260.

AVIATION MAINTENANCE TECHNOLOGY

AMT 100 General Aircraft Technology**Units:** 7.5 **Hours:** 5.0 lecture 7.5 Laboratory**Transferable:** CSU

This course will provide the student with a thorough understanding of the use of basic hand tools and measuring devices, aircraft hardware, materials, and processes, mathematics and physical science for aircraft, aircraft weight and balance, aircraft drawing and blueprint reading. Both theory and practical application to aircraft systems is taught. **ADVISORY:** Mathematics 205 Meets at Gavilan College Aviation Department, 490 Skylane Drive, Hollister Airport, Hollister. Basic hand tools required. Details at the first class meeting.

AMT 101 General Aircraft Technology**Units:** 7.5 **Hours:** 5.0 lecture 7.5 Laboratory**Transferable:** CSU

This course will provide the student with a thorough understanding of the use of maintenance publications, maintenance forms and records with emphasis on A & P mechanic privileges and limitations. Basic electricity for aircraft from Ohm's Law through transistor theory will be taught as well as ground operation and servicing of aircraft. **ADVISORY:** Mathematics 205 Meets at Gavilan College Aviation Department, 490 Skylane Drive, Hollister Airport, Hollister. Basic hand tools required. Details at the first class meeting.

AMT 110 Airframe Maintenance Technology**Units:** 13.5 **Hours:** 9.0 lecture 13.5 Laboratory**Transferable:** CSU

Study of aircraft aerodynamics, rigging and assembly, aircraft sheet metal structures and welding technology. Also the study of cabin atmosphere systems, fuel systems, and line maintenance, level information on aircraft instruments. Each of these areas will be accompanied with appropriate laboratory time. Meets at Gavilan College Aviation Department, 490 Skylane Drive, Hollister Airport, Hollister. Basic hand tools required. Details at the first class meeting.

AMT 111 Airframe Structures**Units:** 13.5 **Hours:** 9.0 lecture 13.5 Laboratory**Transferable:** CSU

Aircraft wood, fiberglass construction, fabric covering, testing and repair, aircraft inspection, painting techniques and procedures. Also the study of basic hydraulic systems of anti-skid systems, pneumatic, fixed landing and retractable landing gear systems. Basic aircraft systems familiarization along with advanced laboratory projects from topics covered in AMT 110 are a part of this course. Meets at Gavilan College Aviation Department, 490 Skylane Drive, Hollister Airport, Hollister. Basic hand tools required. Details at the first class meeting.

AMT 120 Aviation Powerplant Technology**Units:** 14.0 **Hours:** 9.0 lecture 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 certificated aircraft powerplants. This Section covers the theory and practical application of operation, overhaul practices, inspection, installation, testing and troubleshooting techniques covering the subject areas of reciprocating and turbine engines, ignition, induction, supercharging, cooling and exhaust systems. **ADVISORY:** Successful completion of AMT 101 and AMT 111. Basic hand tools required. Details at the first class meeting.

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

The theory of operation, maintenance, repair, and trouble-shooting procedures of powerplant systems and their relationship to the total powerplant package. To include lubrication, electrical, instrument, fuel metering, fire protection, starting, control systems, and the aerodynamics, theory and maintenance of propellers and their control systems. **ADVISORY:** Successful completion of AMT 120. Meets at Gavilan College Aviation Department, 490 Skylane Drive, Hollister Airport, Hollister. Basic hand tools required. Details at the first class meeting.

AMT 190 Occupational Work Experience/Aviation**Units:** 1.0 TO 4.0 **Hours:** 5.0 TO 20.0 Laboratory**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. **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. Meets at Gavilan College Aviation Department, 490 Skylane Drive, Hollister Airport, Hollister.

Beauty School: see Cosmetology

BIOLOGICAL SCIENCE

BIO 1 General Biology**Units:** 4.0 **Hours:** 3.0 lecture 3.0 Laboratory**Transferable:** CSU, UC; CSU-GE:B2, B3, IGETC:5B; GAV-GE:B2, B3; CAN:BIOL2, 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). **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.

All courses listed here are part of Gavilan College's approved curriculum.
All courses are not offered every semester. Check the Class Schedule for current offerings.



BIO 4 General Zoology**Units:** 4.0 **Hours:** 3.0 lecture 3.0 Laboratory**Transferable:** CSU, UC; CSU-GE:B2, B3, IGETC:5B; GAV-GE:B2, B3; CAN:BIOL4, BIOL SEQ A

The classification, ecology, evolution and systems analysis of biological functions in major taxonomic groups of animals from Protists through to Chordata. **PREREQUISITE:** Mathematics 233 with a grade of 'C' or better. **ADVISORY:** Eligible for English 250 and English 260.

BIO 5 General Botany**Units:** 4.0 **Hours:** 3.0 lecture 3.0 Laboratory**Transferable:** CSU, UC; CSU-GE:B2, B3, IGETC:5B; GAV-GE:B2, B3; CAN:BIOL6, 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. **PREREQUISITE:** Mathematics 233 with a grade of 'C' or better. **ADVISORY:** Biological Science 10, eligible for English 250 and English 260.

BIO 7 Human Anatomy**Units:** 4.0 **Hours:** 2.0 lecture 6.0 Laboratory**Transferable:** CSU, UC; CSU-GE:B2, B3, IGETC:5B; GAV-GE:B2, B3; CAN:BIOL10, 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. **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.

BIO 8 General Microbiology**Units:** 5.0 **Hours:** 4.0 lecture 3.0 Laboratory**Transferable:** CSU, UC; CSU-GE:B2, B3, IGETC:5B; GAV-GE:B2, B3; CAN:BIOL14

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; eligible for English 250, English 260 and Mathematics 205.

BIO 9 Human Physiology**Units:** 5.0 **Hours:** 4.0 lecture 3.0 Laboratory**Transferable:** CSU, UC; CSU-GE:B2, B3, IGETC:5B; GAV-GE:B2, B3; CAN:BIOL12, 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. **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.

BIO 10 Principles of Biology**Units:** 4.0 **Hours:** 3.0 lecture 2.0 Laboratory**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. **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:E2; GAV-GE:E2, F; CAN:FCS2

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. **PREREQUISITE:** Eligible for English 250 and English 260 **ADVISORY:** Chemistry 30A and Mathematics 205

BIO 13 Marine Biology**Units:** 4.0 **Hours:** 3.0 lecture 3.0 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:** 5.0 **Hours:** 4.0 lecture 3.0 Laboratory**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. **ADVISORY:** Biological Science 10, 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. May be repeated twice for credit. **ADVISORY:** Eligible for English 250 and Math 205.

BIOTECHNOLOGY**BIOT 103 Biotechnology Lab Skills and Instrumentation****Units:** 4.0 **Hours:** 2.0 lecture 6.0 Laboratory**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. **ADVISORY:** Completion of any high school science course with a grade of 'C' or better; eligible for English 250; eligible for Math 205.

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.

BIOT 105 Advanced Biotechnology Laboratory**Units:** 4.0 **Hours:** 2.0 lecture 6.0 Laboratory**Transferable:** CSU

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. **PREREQUISITE:** BIOT 103, Biotech Lab Skills and Instrumentation.

Business Accounting: see Accounting
