

ATH 27 Basketball

Units: .5 OR 1.0 **Hours:** 1.5 OR 3.0 Laboratory
Transferable: CSU-GE:E, GAV-GE:E1

This is a sport specific course designed for our student-athletes. Fundamentals, strategy and rules of the game of basketball are included. May be repeated three times for credit. This course has the option of a letter grade or pass/no pass.

ATH 35 Intercollegiate Basketball

Units: 2.5 TO 3.0 **Hours:** 7.5 TO 10.0 Laboratory
Transferable: CSU-GE:E, GAV-GE:E1

This course provides practice and competition in intercollegiate basketball. Before participating, students must have completed a physical exam and their athletic eligibility paperwork. May be repeated three times for credit. This course has the option of a letter grade or pass/no pass.

ATH 37 Softball

Units: .5 OR 1.0 **Hours:** 1.5 OR 3.0 Laboratory
Transferable: CSU-GE:E, GAV-GE:E1

This is a sport specific course designed for our student-athletes. Instruction is in the fundamentals of softball. Fundamentals, rules, strategy and game play are included. May be repeated three times for credit. This course has the option of a letter grade or pass/no pass.

ATH 38 Intercollegiate Baseball

Units: 2.5 TO 3.0 **Hours:** 7.5 TO 10.0 Laboratory
Transferable: CSU-GE:E, GAV-GE:E1

This course provides practice and competition in intercollegiate baseball for men. Before participating, students must have completed a physical exam and their athletic eligibility paperwork. May be repeated three times for credit. This course has the option of a letter grade or pass/no pass.

ATH 42 Intercollegiate Football

Units: 2.5 TO 3.0 **Hours:** 7.5 TO 10.0 Laboratory
Transferable: CSU-GE:E, GAV-GE:E1

This course provides practice and competition in intercollegiate football. Before participating, students must have completed a physical exam and their athletic eligibility paperwork. May be repeated three times for credit. This course has the option of a letter grade or pass/no pass.

ATH 45 Intercollegiate Softball

Units: 2.5 TO 3.0 **Hours:** 7.5 TO 10.0 Laboratory
Transferable: CSU-GE:E, GAV-GE:E1

This course provides practice and competition in intercollegiate softball for women. Before participating, students must have completed a physical exam and their athletic eligibility paperwork. May be repeated three times for credit. This course has the option of a letter grade or pass/no pass.

ATH 46 Intercollegiate Volleyball

Units: 2.5 TO 3.0 **Hours:** 7.5 TO 10.0 Laboratory
Transferable: CSU-GE:E, GAV-GE:E1

This course provides practice and competition in intercollegiate volleyball for women. Before participating, students must have completed a physical exam and their athletic eligibility paperwork. May be repeated three times for credit. This course has the option of a letter grade or pass/no pass.

ATH 47 Intercollegiate Soccer

Units: 2.5 TO 3.0 **Hours:** 7.5 TO 10.0 Laboratory
Transferable: CSU-GE:E, GAV-GE:E1

This course provides practice and competition in intercollegiate soccer. Before participating, students must have completed a physical exam and their athletic eligibility paperwork. May be repeated three times for credit. This course has the option of a letter grade or pass/no pass.

ATH 48 Agility and Strength Development

Units: .5 OR 1.0 **Hours:** 1.5 OR 3.0 Laboratory
Transferable: CSU-GE:E, GAV-GE:E1

This conditioning class is designed to improve and increase agility and strength development of the student-athlete through various exercises and exercise programs. May be repeated three times for credit. This course has the option of a letter grade or pass/no pass.

ATH 65 Baseball

Units: .5 OR 1.0 **Hours:** 1.5 OR 3.0 Laboratory
Transferable: CSU-GE:E, GAV-GE:E1

This is a sport specific course designed for our student-athletes. Fundamentals, mechanics, strategy and rules of the game of baseball are included. May be repeated three times for credit. This course has the option of a letter grade or pass/no pass.

ATH 75 Sports Conditioning

Units: .5 OR 1.0 **Hours:** 1.5 OR 3.0 Laboratory
Transferable: CSU-GE:E, GAV-GE:E1

This activity class is designed to improve the physical condition of our male and female student-athletes. It includes strength training, cardiovascular endurance, plyometric training, and sport specific techniques through an open lab format. May be repeated three times for credit. This course has the option of a letter grade or pass/no pass.

ATH 77 Football

Units: .5 OR 1.0 **Hours:** 1.5 OR 3.0 Laboratory
Transferable: CSU-GE:E, GAV-GE:E1

This is a sport specific course designed for our student-athletes. Instruction is in the fundamentals of football. Includes skills, rules and strategy with emphasis on the application of skills and strategies in game play. May be repeated three times for credit. This course has the option of a letter grade or pass/no pass.

ATH 90 Intercollegiate Sand Volleyball

Units: 2.5 TO 3.0 **Hours:** 7.5 TO 10.0 Laboratory
Transferable: CSU-GE:E, GAV-GE:E1

This course provides practice and competition in intercollegiate sand volleyball for women. Before participating, students must have completed a physical exam and their athletic eligibility paperwork. May be repeated three times for credit. This course has the option of a letter grade or pass/no pass.

AVIATION MAINTENANCE TECH**AMT 100 General Aircraft Technology**

Units: 9.0 **Hours:** 7.5 Lecture and 5.0 Laboratory

This course is an FAA Part 147 course designed to prepare the student for their FAA Airframe and Powerplant (A and P) certificate. The course will provide the student with a thorough understanding of the use of basic hand tools and measuring devices; basic physics and math; aircraft materials, processes and hardware, procedures for clean and corrosion control; weight and balance techniques; and human factors. Both theory and practical application to aircraft systems are taught. Approval from a Gavilan College counselor must be obtained before registering for this class. **COREQUISITE:** AMT 110, Airframe Maintenance Technology. **ADVISORY:** Mathematics 430.

AMT 101 General Aircraft Technology**Units:** 9.0 **Hours:** 7.5 Lecture and 5.0 Laboratory

This course is an FAA Part 147 course designed to prepare the student for their FAA Airframe and Powerplant (A and P) certificate. This course will provide the student with a thorough understanding of the use of maintenance publications, maintenance forms and records with emphasis on A and 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. Both theory and practical application to aircraft are taught. Approval from a Gavilan College counselor must be obtained before registering for this class. **COREQUISITE:** AMT 111, Airframe Structures. **ADVISORY:** Mathematics 430.

AMT 110 Airframe Maintenance Technology**Units:** 13.5 **Hours:** 9.0 Lecture and 13.5 Laboratory

This course is an FAA Part 147 course designed to prepare the student for their FAA Airframe certificate. The course will provide the student with a thorough understanding of airframe structures; metal structural repair; aircraft welding; aircraft instruments; communications and navigation systems; fuel systems; and cabin environmental systems. Both theory and practical application to aircraft systems is taught. **COREQUISITE:** AMT 100, General Aircraft Technology. **ADVISORY:** Mathematics 430

AMT 111 Airframe Structures**Units:** 13.5 **Hours:** 9.0 Lecture and 13.5 Laboratory

This course is an FAA Part 147 course designed to prepare the student for their FAA Airframe certificate. The course will provide the student with a thorough understanding of nonmetallic aircraft structures including wood, fabric, composite structures. Also the study of hydraulic and pneumatic power systems; landing gear systems; electrical systems; and assembly and rigging. Both theory and practical application to aircraft systems is taught. **COREQUISITE:** AMT 101, General Aircraft Technology. **ADVISORY:** Mathematics 430.

AMT 120 Aviation Powerplant Technology**Units:** 13.5 **Hours:** 9.0 Lecture and 13.5 Laboratory

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 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. **PREREQUISITE:** Successful completion of AMT 100 and AMT 111. Basic hand tools required. Details at the first class meeting.

AMT 121 Aviation Powerplant Systems Technology**Units:** 13.5 **Hours:** 9.0 Lecture and 13.5 Laboratory

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. **PREREQUISITE:** Successful completion of AMT 100 and 101. Basic hand tools required. Details at the first class meeting.

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.

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

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:** 3.3 TO 16.7 Laboratory

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. Student repetition is allowed per Title 5 Section 55253. Minimum 2.00 GPA. **REQUIRED:** Declared vocational major.

AMT 225 Introduction to Unmanned Aircraft Systems**Units:** 3.0 **Hours:** 3.0 Lecture

This course introduces students to the foundations of unmanned aerial systems including the history, UAS systems, maintenance, payloads, data links, ground support equipment, classes of UAS systems, categories, applications, mission planning and control and recovery systems.

AMT 226 UAS Flight Operations and Pilot Certification**Units:** 3.0 **Hours:** 2.0 Lecture and 3.0 Laboratory

This course will instruct students in the basic flight operations for both fixed wing and rotor wing aircraft, as well as prepare them to take the FAA pilot certification exam.

AMT 227 UAS Aerial Photography and Videography**Units:** 3.0 **Hours:** 2.0 Lecture and 3.0 Laboratory

This course is designed to provide the student with the skills which will allow them to capture and analyze photos and videos from drones. Emphasis is placed on cameras and image software available, applications, and techniques for analyzing imagery.

AMT 228 UAS Maintenance Technician**Units:** 3.0 **Hours:** 2.0 Lecture and 3.0 Laboratory

This course is designed to provide students with the skills to maintain and repair small unmanned aerial systems (UAS). Emphasis is on the various systems, including the fuel, electrical, flight control and power plant systems as well as digital central processor assembly and system support equipment. Also covers system performance criteria, operational safety, inspection techniques and diagnosis of the UAS.

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