

ART 190 Occupational Work Experience/Commercial Art**Units:** 1-4 **Hours:** 20 Laboratory**Required:** Enrollment in a minimum of seven (7) units, including Cooperative Work Experience, during regular semesters; enrollment in at least one other class in summer session.**Transferable:** GAV-GE: C1

The application of learned theory, knowledge, and skills to a practical job setting related to the student's educational/occupational goal. Employment must be directly related to the student's college educational/occupational goal. Periodic interviews of the students and employers or their representatives will be required. Each student shall be assisted in the development of individualized performance objectives, toward which the learning experience shall be directed.

ASTRONOMY**ASTR 1 Introduction to General Astronomy****Units:** 3 **Hours:** 3 Lecture**Advisory:** Mathematics 205 and eligible for English 250 and English 260.**Transferable:** CSU; UC; CSU-GE: B1; IGETC: 5A; GAV-GE: B1

An introduction to the realm of astronomy and space science. Topics to be covered include the historical development of astronomy, the physics of gravitation and radiation, the solar system, stellar astronomy, galactic and extragalactic astronomy, and cosmology.

Athletics: see Physical Education (PE)

AVIATION FLIGHT TECHNOLOGY**AFT 121 Aviation Fundamentals****Units:** 3 **Hours:** 3 Lecture**Advisory:** Eligible for English 250, English 260 and Mathematics 205.**Transferable:** CSU

Principles of aerodynamics and flight, radio communications, aircraft engines and systems and aircraft performance characteristics including federal aviation regulations and air navigation. Students who satisfactorily complete the course will be eligible to take the Federal Aviation Administration Private Pilot Airplane written test.

AFT 122 Instrument Flight Technology**Units:** 3 **Hours:** 3 Lecture**Advisory:** AFT 121 or 131, or have passed the FAA Private Pilot written exam**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.

AFT 133 Commercial Flight Operations**Units:** 3 **Hours:** 3 Lecture**Advisory:** Hold private pilot certificate or AFT 121 with a grade of "C" or better. Eligible for English 250 and 260.**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.

AFT 134 Aviation Flight Technology**Units:** 3 **Hours:** 3 Lecture**Advisory:** Completion of English 250 and English 260.**Transferable:** No

This course includes all aerodynamics, navigation, regulations, airport and airspace requirements, meteorology, and emergency procedures necessary to qualify for a private pilot certificate.

AVIATION MAINTENANCE TECHNOLOGY**AMT 100 General Aircraft Technology****Units:** 7.5 **Hours:** 5 Lecture, 7.5 Laboratory**Advisory:** Mathematics 205**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.

AMT 101 General Aircraft Technology**Units:** 7.5 **Hours:** 5 Lecture, 7.5 Laboratory**Advisory:** Mathematics 205**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.

AMT 110 Airframe Maintenance Technology**Units:** 13.5 **Hours:** 9 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.

AMT 111 Airframe Structures**Units:** 13.5 **Hours:** 9 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.

AMT 120 Aviation Powerplant Technology**Units:** 14 **Hours:** 9 Lecture, 15 Laboratory**Advisory:** Successful completion of AMT 101 and AMT 111.**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.

AMT 121 Aviation Powerplant Systems Technology**Units:** 14 **Hours:** 9 Lecture, 15 Laboratory**Advisory:** Successful completion of AMT 120.**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.