

Aviation Maintenance Science - Technical (AMST)

AMST 115 Aviation Mathematics and Physics 2 Credits (5.5,0)

Fundamentals of aviation mathematics and physics; fractions, decimals, ratios, geometry, formulas, proportions; atmospheric properties, thermodynamics, fluid power, heat, power, work, basic machines, sound.
Course Offered at: Daytona Beach

AMST 116 Fundamentals of Electricity 4 Credits (6.75,3)

Direct and alternating current electricity; electrical circuit design; voltage, current, resistance, impedance relationships; transformers; solid state and logic devices; classroom theory reinforced with laboratory projects.
Course Offered at: Daytona Beach

AMST 117 Tools, Materials and Processes 4 Credits (4.5,4)

Measurement tools; aviation hardware and materials; nondestructive testing methods; corrosion control; aircraft drawings, blueprints, charts, and graphs.
Course Offered at: Daytona Beach

AMST 118 Aircraft Familiarization and Regulations 2 Credits (5,1.75)

Aircraft terminology; basic aerodynamics; human factors; Federal Aviation Regulations (FAR) relevant to aircraft maintenance; associated documents and records; aircraft ground operation, movement, safety procedures; aircraft weight and balance.
Course Offered at: Daytona Beach

AMST 261 Aircraft Metallic Structures 3 Credits (6.75,5.25)

Aircraft structural characteristics; fabrication methods; aluminum sheet metal applications; metalworking processes; welding relevant to industry standards.
Prerequisites: AMST 115 and AMST 117 and AMST 118
Course Offered at: Daytona Beach

AMST 262 Aircraft Composite Structures 3 Credits (4,3.5)

Use of composite, plastic, wood, and fabric materials in aircraft; fabrication, repairs, finishing; adhesive and plastic resin application; composite machining; vacuum bagging of composite parts.
Prerequisites: AMST 117 and AMST 118
Course Offered at: Daytona Beach

AMST 263 General Aviation Aircraft Systems 3 Credits (5.5,1.5)

Operating principles and troubleshooting of systems in general aviation aircraft; hydraulics, air conditioning, oxygen, landing gear, brakes, ice/rain detection/protection, fire detection/extinguishing, fuel, flight controls.
Prerequisites: AMST 116 and AMST 117 and AMST 118
Course Offered at: Daytona Beach

AMST 264 General Aviation Aircraft Electrical and Instrument Systems 3 Credits (6.75,3.75)

Aircraft wiring; basic electrical troubleshooting; DC alternator power systems; instruments and avionics for general aviation aircraft; laboratory projects and classroom instruction.
Prerequisites: AMST 116
Course Offered at: Daytona Beach

AMST 271 Aircraft Reciprocating Powerplant and Systems 3 Credits (6.75,5.25)

Various aircraft engines in aviation; reciprocating engine disassembly, inspection, reassembly; fuel metering, superchargers, induction, cooling, exhaust systems.
Prerequisites: AMST 115 and AMST 117 and AMST 118
Course Offered at: Daytona Beach

AMST 272 Powerplant Electrical and Instrument Systems 3 Credits (5.5,2)

Electrical and instrumentation systems supporting aircraft powerplants; overhaul and testing of reciprocating and turbine engine electrical components, auxiliary power units.
Prerequisites: AMST 116 and AMST 117 and AMST 118
Course Offered at: Daytona Beach

AMST 273 Propeller Systems 2 Credits (3,2.5)

Maintenance, repair, troubleshooting of propellers and system components for reciprocating and turboprop engines.
Prerequisites: AMST 115 and AMST 116 and AMST 117 and AMST 118
Course Offered at: Daytona Beach

AMST 274 Aircraft Turbines Powerplants and Systems 4 Credits (6.75,6.75)

Construction and design of modern gas turbine engines; turbine engine systems, lubrication, fuel scheduling, starting, ignition; inspection, troubleshooting, maintenance techniques.
Prerequisites: AMST 116 and AMST 117 and AMST 118
Course Offered at: Daytona Beach

AMST 365 Transport Category Aircraft Systems 3 Credits (4.5,3.5)

Operating principles and troubleshooting of systems in transport category aircraft; hydraulics, pneumatics, environmental control, oxygen, landing gear, brakes, anti-skid, ice/rain detection/protection, fire detection/extinguishing, fuel, flight controls; practical lab situations for reinforcement.
Prerequisites: AMST 116 and AMST 118 and AMST 263 and AMST 264
Course Offered at: Daytona Beach

AMST 366 Transport Category Aircraft Electrical and Instrument Systems 3 Credits (6.75,4.5)

Transport category aircraft power systems; AC power on large aircraft, DC generator systems on multiengine turbine aircraft; electrical troubleshooting; avionics/instrument systems.
Prerequisites: AMST 116 and AMST 264
Course Offered at: Daytona Beach

AMST 375 Repair Station Operations 3 Credits

(3.5,4.5)

Procedures and techniques for engine disassembly, inspection, repair, reassembly in a certificated engine repair station; advanced nondestructive testing techniques.

Prerequisites: AMST 271 and AMST 272

Course Offered at: Daytona Beach

AMST 376 Powerplant Line Maintenance 3

Credits (4,4.5)

Procedures and methods for installation, inspection, operational checks of reciprocating and turbine engines; adjustment and troubleshooting of fuel, oil, electrical, propeller systems on operational aircraft engines.

Prerequisites: AMST 271 and AMST 272

Course Offered at: Daytona Beach

AMST 380 Radio Communication Theory and Application 2 Credits (2,0)

Advanced radio communication and electronics; preparation for FCC General Radio Telephone License (GROL) Examination Elements 1 & 3; NCATT Aviation Electronic Technician (AET) certifications.

Prerequisites: AMST 116 and AMST 264 and AMST 366

Course Offered at: Daytona Beach

AMST 384 General Aviation Avionics Systems Integration 4 Credits (0,0)

Aviation electronic equipment; installation, system testing; wiring and integration of general aviation avionics packages, GPS; operation, testing, troubleshooting of avionics systems and wiring.

Prerequisites: AMST 116 and AMST 264 and AMST 366

Course Offered at: Daytona Beach

AMST 388 Air Transport Avionics Systems Line Maintenance 6 Credits (0,0)

Advanced principles in aircraft wiring and avionics systems; hands-on wiring; ramp testing; corporate and airline maintenance; troubleshooting.

Prerequisites: AMST 384

Course Offered at: Daytona Beach