

AVIATION MAINTENANCE TECHNICIAN (AVMT)

AVMT 101 Maintenance Mathematics 1 Credit Hour(s)

This course will provide the student with a review of the fundamental operations in arithmetic, including: fractions, decimals, ratios, geometry, basic trigonometric functions, formulae, and proportions, as described in the FAA Aviation Mechanic Airman Certification Standards (ACS) Subject Area Mathematics. Applications of these operations in aircraft maintenance will be demonstrated.

Registration Restrictions: AA Aviation Maintenance Technician, BS Aviation Maintenance, BS Aviation Maintenance Management, BS Aviation Technology: Flight Maintenance, Certificate in Aviation Maintenance Technician

Offered: Resident

AVMT 102 Aircraft Sciences 3 Credit Hour(s)

This course will introduce the student with fundamentals of electrical theory, as well as present aircraft drawings, symbols, and schematic diagrams commonly used in aircraft maintenance and illustrated parts manuals. These topics cover the FAA Aviation Mechanic Airman Certification Standards (ACS) Subject Areas Fundamentals of Electricity and Electronics, and Aircraft Drawings.

Registration Restrictions: AA Aviation Maintenance Technician, BS Aviation Maintenance, BS Aviation Maintenance Management, BS Aviation Technology: Flight Maintenance, Certificate in Aviation Maintenance Technician

Offered: Resident

AVMT 103 Maintenance Physics 1 Credit Hour(s)

This course will provide the student with a review of the fundamental concepts of physics, as described in the FAA Aviation Mechanic Airman Certification Standards (ACS) Subject Area Physics for Aviation. Basic concepts of aviation applied physics will be presented, including: aerodynamic laws, theory of flight, fluid, heat, power, work, simple machines, and sound.

Registration Restrictions: AA Aviation Maintenance Technician, BS Aviation Maintenance, BS Aviation Maintenance Management, BS Aviation Technology: Flight Maintenance, Certificate in Aviation Maintenance Technician

Offered: Resident

AVMT 104 Maintenance Practices I 3 Credit Hour(s)

This course will introduce the student to materials and processes used in aviation, the regulatory environment of aviation, as well as basic inspection procedures. It covers the FAA Aviation Mechanic Airman Certification Standards (ACS) Subject Areas Aircraft Materials, Hardware, and Processes; Regulations, Maintenance Forms, Records and Publications; and Inspection Concepts and Techniques.

Registration Restrictions: AA Aviation Maintenance Technician, BS Aviation Maintenance, BS Aviation Maintenance Management, BS Aviation Technology: Flight Maintenance, Certificate in Aviation Maintenance Technician

Offered: Resident

AVMT 105 Aircraft Weight and Balance 1 Credit Hour(s)

This course will provide the student with an understanding of the principles and skills of aircraft weight and balance, and its crucial impact on flight safety. It covers the FAA Aviation Mechanic Airman Certification Standards (ACS) Subject Area Weight and Balance.

Registration Restrictions: AA Aviation Maintenance Technician, BS Aviation Maintenance, BS Aviation Maintenance Management, BS Aviation Technology: Flight Maintenance, Certificate in Aviation Maintenance Technician

Offered: Resident

AVMT 106 Maintenance Practices II 3 Credit Hour(s)

This course will introduce the student to cleaning and corrosion control; fluid lines and fittings; ground operations; and human factors. It covers the FAA Aviation Mechanic Airman Certification Standards (ACS) Subject Areas Cleaning and Corrosion Control; Fluid Lines and Fittings; Ground Operations and Servicing; and Human Factors.

Registration Restrictions: AA Aviation Maintenance Technician, BS Aviation Maintenance, BS Aviation Maintenance Management, BS Aviation Technology: Flight Maintenance, Certificate in Aviation Maintenance Technician

Offered: Resident

AVMT 150 General Curriculum Final 0 Credit Hour(s)

This course reviews major concepts covered in the General Curriculum which students will be tested on during FAA testing for certification. It provides a means by which the student will demonstrate mastery of FAA General Curriculum material before receiving an endorsement for FAA licensure testing.

Registration Restrictions: AA Aviation Maintenance Technician, BS Aviation Maintenance, BS Aviation Maintenance Management, BS Aviation Technology: Flight Maintenance, Certificate in Aviation Maintenance Technician

Offered: Resident

AVMT 200 Airframe Auxiliary Systems 3 Credit Hour(s)

This course will provide the student an understanding of operating principles and basic maintenance techniques for airframe auxiliary systems and their components, including: cabin atmosphere control, communication and navigation, instruments, static and pitot, fire detection and extinguishing, smoke and carbon monoxide detection, ice and rain control, speed and configuration, anti-skid brakes, as well as position and warning. The student will also learn the operations and maintenance of aircraft fuel systems and components, including fluid quantity indicating systems, fluid pressure and temperature warning systems, fuel dump systems, transfer and defueling, and pressure fueling systems.

Offered: Resident

AVMT 201 Airframe Auxiliary Systems I 1 Credit Hour(s)

Prerequisite: AVMT 150 and AVMT 204 and AVMT 206

This course will provide the student an understanding of operating principles and basic maintenance techniques for environmental and waste water systems, as described in the FAA Aviation Mechanic Airman Certification Standards (ACS) Subject Areas Environmental, and Waste and Water Systems. The student will learn to inspect, check, troubleshoot and repair these systems.

Registration Restrictions: AA Aviation Maintenance Technician, BS Aviation Maintenance, BS Aviation Maintenance Management, BS Aviation Technology: Flight Maintenance, Certificate in Aviation Maintenance Technician

Offered: Resident

AVMT 202 Aircraft Electrical Systems 3 Credit Hour(s)**Prerequisite:** AVMT 150 and AVMT 204 and AVMT 206

This course is designed to provide the student with an advanced study of electrical systems, electrical power generation and control; and communication and navigational systems, as described in the FAA Aviation Mechanic Airman Certification Standards (ACS) Subject Areas Aircraft Electrical, and Communication and Navigation Systems. The student will gain knowledge and skills to inspect, check, service, and troubleshoot these systems.

Registration Restrictions: AA Aviation Maintenance Technician, BS Aviation Maintenance, BS Aviation Maintenance Management, BS Aviation Technology: Flight Maintenance, Certificate in Aviation Maintenance Technician

Offered: Resident**AVMT 203 Aircraft Auxiliary Systems II 2 Credit Hour(s)****Prerequisite:** AVMT 150 and AVMT 204 and AVMT 206

This course will provide the student an understanding of operating principles and basic maintenance techniques for airframe fuel systems, ice and rain control systems, and aircraft instrument systems, as described in the FAA Aviation Mechanic Airman Certification Standards (ACS) Subject Areas Aircraft Fuel Systems, Ice and Rain Control Systems, and Aircraft Instrument Systems. The student will learn to inspect, check, troubleshoot and repair these systems.

Registration Restrictions: AA Aviation Maintenance Technician, BS Aviation Maintenance, BS Aviation Maintenance Management, BS Aviation Technology: Flight Maintenance, Certificate in Aviation Maintenance Technician

Offered: Resident**AVMT 204 Airframe Structures I 3 Credit Hour(s)**

This course will instruct the student in the basic construction and properties of materials typically used in aircraft applications, with emphasis on aluminum sheet metal applications, as described in the FAA Aviation Mechanic Airman Certification Standards (ACS) Subject Area Metallic Structures. Projects will focus on sheet metal lay-out, cutting, forming, bending and riveting, using solid and blind rivets, as well as identifying and using specialty fasteners.

Registration Restrictions: AA Aviation Maintenance Technician, BS Aviation Maintenance, BS Aviation Maintenance Management, BS Aviation Technology: Flight Maintenance, Certificate in Aviation Maintenance Technician

Offered: Resident**AVMT 205 Airframe Auxiliary Systems III 1 Credit Hour(s)**

This course will provide the student an understanding of operating principles and basic maintenance techniques for airframe auxiliary systems and their components, including: aircraft fire protection and aircraft fuel systems. The student will learn to inspect, check, service, troubleshoot and repair these systems.

Registration Restrictions: Due to FAA requirements, the student must submit an AMTS Application through the School of Aeronautics prior to enrollment.

Offered: Resident**AVMT 206 Airframe Structures II 2 Credit Hour(s)**

This course will instruct the student in the basic construction and properties of materials typically used in aircraft applications, with emphasis on non-metallic and composite structures, as described in the FAA Aviation Mechanic Airman Certification Standards (ACS) Subject Area Non-Metallic Structures. Student projects will focus on lay-out, forming, and repairing these structures.

Registration Restrictions: AA Aviation Maintenance Technician, BS Aviation Maintenance, BS Aviation Maintenance Management, BS Aviation Technology: Flight Maintenance, Certificate in Aviation Maintenance Technician

Offered: Resident**AVMT 207 Hydraulic and Pneumatic Systems 1 Credit Hour(s)****Prerequisite:** AVMT 150 and AVMT 204 and AVMT 206

This course is designed to introduce the student to basic fluid mechanics as it applies to practical applications in aircraft hydraulic and pneumatic systems, as described in the FAA Aviation Mechanic Airman Certification Standards (ACS) Subject Area hydraulic and Pneumatic Systems. The student will learn to inspect, check, service, troubleshoot and repair these systems.

Registration Restrictions: AA Aviation Maintenance Technician, BS Aviation Maintenance, BS Aviation Maintenance Management, BS Aviation Technology: Flight Maintenance, Certificate in Aviation Maintenance Technician

Offered: Resident**AVMT 208 Airframe Assembly and Inspection 2 Credit Hour(s)****Prerequisite:** AVMT 150 and AVMT 204 and AVMT 206

This course will provide the student an understanding of aircraft construction, design, and inspection. It covers the Federal Aviation Mechanic Airman Certification Standards (ACS) Subject Areas Flight Controls, Rotorcraft Fundamentals, and Airframe Inspection. The student will learn to assemble and rig aircraft controls, and perform inspections of aircraft, including associated forms and paperwork.

Registration Restrictions: AA Aviation Maintenance Technician, BS Aviation Maintenance, BS Aviation Maintenance Management, BS Aviation Technology: Flight Maintenance, Certificate in Aviation Maintenance Technician

Offered: Resident**AVMT 209 Landing Gear Systems 2 Credit Hour(s)****Prerequisite:** AVMT 150 and AVMT 204 and AVMT 206

This course will provide the student an understanding of operating principles and basic maintenance techniques for aircraft landing gear systems, as described in the FAA Aviation Mechanic Airman Certification Standards (ACS) Subject Area Landing Gear Systems. The student will learn to inspect, check, service, troubleshoot and repair these systems.

Registration Restrictions: AA Aviation Maintenance Technician, BS Aviation Maintenance, BS Aviation Maintenance Management, BS Aviation Technology: Flight Maintenance, Certificate in Aviation Maintenance Technician

Offered: Resident

AVMT 211 Fire Protection 1 Credit Hour(s)**Prerequisite:** AVMT 150 and AVMT 204 and AVMT 206

This course will provide the student an understanding of operating principles and basic maintenance techniques for airframe and powerplant fire protection, as described in the FAA Aviation Mechanic Airman Certification Standards (ACS) Subject Areas Airframe Fire Protection Systems and Engine Fire Protection Systems. The student will learn to inspect, check, troubleshoot and repair these systems.

Registration Restrictions: AA Aviation Maintenance Technician, BS Aviation Maintenance, BS Aviation Maintenance Management, BS Aviation Technology: Flight Maintenance, Certificate in Aviation Maintenance Technician

Offered: Resident**AVMT 213 Powerplant Fuel Systems 2 Credit Hour(s)****Prerequisite:** AVMT 211 and AVMT 221 and AVMT 250

This course will provide the student an understanding of operating principles and basic maintenance techniques for engine fuel systems and their components, as described as described in the FAA Aviation Mechanic Airman Certification Standards (ACS) Subject Area Engine Fuel and Fuel Metering Systems. The student will learn to inspect, check, service, troubleshoot and repair these systems.

Registration Restrictions: AA Aviation Maintenance Technician, BS Aviation Maintenance, BS Aviation Maintenance Management, BS Aviation Technology: Flight Maintenance, Certificate in Aviation Maintenance Technician

Offered: Resident**AVMT 214 Engine Electrical Systems 3 Credit Hour(s)****Prerequisite:** AVMT 211 and AVMT 221 and AVMT 250

This course will present principles of operation and servicing procedures of engine electrical systems, as described in the FAA Aviation Mechanic Airman Certification Standards (ACS) Subject Areas Engine Electrical, and Ignition and Starting Systems. The student will learn to inspect, check, service, troubleshoot and repair these systems.

Registration Restrictions: AA Aviation Maintenance Technician, BS Aviation Maintenance, BS Aviation Maintenance Management, BS Aviation Technology: Flight Maintenance, Certificate in Aviation Maintenance Technician

Offered: Resident**AVMT 215 Powerplant Lubrication Systems 1 Credit Hour(s)****Prerequisite:** AVMT 211 and AVMT 221 and AVMT 250

This course will provide the student an understanding of operating principles and basic maintenance techniques for engine lubrication systems and their components, as described in the FAA Aviation Mechanic Airman Certification Standards (ACS) Subject Area Lubrication Systems. The student will learn to inspect, check, service, troubleshoot and repair these systems.

Registration Restrictions: AA Aviation Maintenance Technician, BS Aviation Maintenance, BS Aviation Maintenance Management, BS Aviation Technology: Flight Maintenance, Certificate in Aviation Maintenance Technician

Offered: Resident**AVMT 217 Powerplant Auxiliary Systems I 1 Credit Hour(s)**

This course will provide the student an understanding of operating principles and basic maintenance techniques for engine auxiliary systems and their components, including: engine exhaust and thrust reversers, and engine fire protection systems. The student will learn to inspect, check, service, troubleshoot and repair these systems.

Registration Restrictions: Due to FAA requirements, the students must submit an AMTS Application through the School of Aeronautics prior to enrollment.

Offered: Resident**AVMT 219 Engine Instrument Systems 1 Credit Hour(s)****Prerequisite:** AVMT 211 and AVMT 221 and AVMT 250

This course will provide the student an understanding of operating principles and basic maintenance techniques for engine instrument systems, as described in the FAA Aviation Mechanic Airman Certification Standards (ACS) Subject Area Engine Instrument Systems. The student will learn to inspect, check, service, troubleshoot and repair these systems.

Registration Restrictions: AA Aviation Maintenance Technician, BS Aviation Maintenance, BS Aviation Maintenance Management, BS Aviation Technology: Flight Maintenance, Certificate in Aviation Maintenance Technician

Offered: Resident**AVMT 221 Propeller Systems 2 Credit Hour(s)****Prerequisite:** AVMT 150 and AVMT 204 and AVMT 206

In this course the student will study the construction and operation of propeller systems, as described in the FAA Aviation Mechanic Airman Certification Standards (ACS) Subject Area Propellers. The student will learn to inspect, check, service, troubleshoot and install propeller systems.

Registration Restrictions: AA Aviation Maintenance Technician, BS Aviation Maintenance, BS Aviation Maintenance Management, BS Aviation Technology: Flight Maintenance, Certificate in Aviation Maintenance Technician

Offered: Resident**AVMT 223 Engine Inspections 1 Credit Hour(s)****Prerequisite:** AVMT 211 and AVMT 221 and AVMT 250

This course will provide the student an understanding of engine inspection processes. It covers the Federal Aviation Mechanic Airman Certification Standards (ACS) Subject Area Engine Inspection. The student will learn to perform inspections of aircraft engines, including associated forms and paperwork.

Registration Restrictions: AA Aviation Maintenance Technician, BS Aviation Maintenance, BS Aviation Maintenance Management, BS Aviation Technology: Flight Maintenance, Certificate in Aviation Maintenance Technician

Offered: Resident**AVMT 250 Airframe Curriculum Final 0 Credit Hour(s)****Prerequisite:** AVMT 150 and AVMT 204 and AVMT 206

This course reviews major concepts covered in the Airframe Curriculum which students will be tested on during FAA testing for certification. It provides a means by which the student will demonstrate mastery of FAA Airframe Curriculum material before receiving endorsement for FAA testing.

Registration Restrictions: AA Aviation Maintenance Technician, BS Aviation Maintenance, BS Aviation Maintenance Management, BS Aviation Technology: Flight Maintenance, Certificate in Aviation Maintenance Technician

Offered: Resident

AVMT 312 Reciprocating Engine Technology 3 Credit Hour(s)**Prerequisite:** AVMT 211 and AVMT 221 and AVMT 250

This course will instruct the student in the principles of operation, construction, and design of reciprocating aircraft engines and components, including induction and cooling, as described in the FAA Aviation Mechanic Airman Certification Standards (ACS) Subject Areas Reciprocating Engines, and Reciprocating Engine Induction and Cooling Systems. The student will gain procedural knowledge and technical skills in reciprocating engine removal, servicing, overhaul, installation, and troubleshooting reciprocating engines, as well as inspect, check, service, troubleshoot and repair induction and cooling systems.

Registration Restrictions: AA Aviation Maintenance Technician, BS Aviation Maintenance, BS Aviation Maintenance Management, BS Aviation Technology: Flight Maintenance, Certificate in Aviation Maintenance Technician

Offered: Resident

AVMT 320 Turbine Engine Technology 3 Credit Hour(s)**Prerequisite:** AVMT 211 and AVMT 221 and AVMT 250

This course will instruct the student in the principles of operation, construction, and design of turbine aircraft engines and components; and air systems, and exhaust and reverser systems, as described in the FAA Aviation Mechanic Airman Certification Standards (ACS) Subject Areas Turbine Engines; Turbine Engine Air Systems, and Engine Exhaust and Reverser Systems. The student will gain procedural knowledge and technical skills in turbine engine removal, servicing, overhaul, installation, and troubleshooting turbine engines, as well as inspect, check, service, troubleshoot and repair air systems, and exhaust and reverser systems.

Registration Restrictions: AA Aviation Maintenance Technician, BS Aviation Maintenance, BS Aviation Maintenance Management, BS Aviation Technology: Flight Maintenance, Certificate in Aviation Maintenance Technician

Offered: Resident

AVMT 350 Powerplant Curriculum Final 0 Credit Hour(s)**Prerequisite:** AVMT 211 and AVMT 221 and AVMT 250

This course reviews major concepts covered in the Powerplant Curriculum over which students will be tested on during FAA testing for certification. It provides a means by which the student will demonstrate mastery of FAA Powerplant Curriculum material before receiving endorsement for FAA testing.

Registration Restrictions: AA Aviation Maintenance Technician, BS Aviation Maintenance, BS Aviation Maintenance Management, BS Aviation Technology: Flight Maintenance, Certificate in Aviation Maintenance Technician

Offered: Resident