

AVIATION MAINTENANCE TECHNOLOGY (AMT)

AMT0010C AIRCRAFT DRAWINGS (0.50 Credits)

This course covers aircraft drawings, care and use of blueprints, isometrics, orthographic and auxiliary projection lines and section, dimensions, limits, tolerances and allowances, geometric construction, practical layout work and identification of standard parts and material, use of instruments, drawing and interpretation of free hand sketches of repairs and alterations, and use of various types of charts and graphs.

Total Contact Hrs: 21.00

Lecture Hrs: 12.00

Lab Hrs: 9.00

AMT0040C MATERIALS AND PROCESSES (2.50 Credits)

Familiarizes students with the methods used to identify and select aircraft materials and with various heat treating processes. Provides experience in the use of non-destructive methods of inspection and evaluation. Provides instruction in correct shop practices and procedures and the use of special tools. Areas covered are torque values and torquing methods, safety wiring, use of precision measuring equipment, shop safety, and technicians' ethics and legal responsibilities.

Total Contact Hrs: 84.00

Lecture Hrs: 46.00

Lab Hrs: 38.00

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$22.00

AMT0050C GROUND OPERATIONS AND SERVICING (1.00 Credits)

Familiarizes the student with the proper methods of starting ground operating, servicing and securing aircraft.

Total Contact Hrs: 31.50

Lecture Hrs: 10.50

Lab Hrs: 21.00

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$29.00

AMT0060C CLEANING AND CORROSION CONTROL (0.50 Credits)

Provides experience in detecting, identifying, removal, and treatment of the various types of corrosion found on ferrous and non-ferrous metals. The course deals with the types of cleaners and methods of cleaning aircraft and aircraft components. Student fee charged.

Total Contact Hrs: 26.25

Lecture Hrs: 12.00

Lab Hrs: 14.25

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$15.00

AMT0070C APPLIED MATHEMATICS (0.50 Credits)

Reviews principles of mathematical functions and studies their application to aircraft and powerplant maintenance operations

Total Contact Hrs: 21.00

Lecture Hrs: 14.00

Lab Hrs: 7.00

AMT0090C BASIC PHYSICS (0.50 Credits)

Provides an understanding of energy and matter and how their relationships apply to aircraft maintenance.

Total Contact Hrs: 26.25

Lecture Hrs: 17.00

Lab Hrs: 9.25

AMT0115C AIRCRAFT COVERINGS (0.50 Credits)

Student will gain knowledge and skills to inspect, test, and repair fabric-covering materials. The student will be able to select and apply all types of fabric covering, including the synthetics types, and use of proper materials to finish the material. Student fee charged.

Total Contact Hrs: 12.00

Lecture Hrs: 8.00

Lab Hrs: 4.00

Fees: EDU/ACCIDENT INSURANCE \$4.75

AMT0120C AIRCRAFT FINISHES (1.00 Credits)

Student will acquire the ability to properly use a paint spray gun to apply various types of finishes on a variety of surfaces. The student will be able to apply trim lines and aircraft identification number, touch up paint defects, and identify and select aircraft finishing materials. Student fee charged.

Total Contact Hrs: 30.00

Lecture Hrs: 10.00

Lab Hrs: 20.00

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$60.00

AMT0130C SHEET METAL STRUCTURES (5.00 Credits)

Student is provided with knowledge and skills needed to inspect, maintain, and repair sheet metal structures and components. The course provides the student an introduction to fiberglass, composite and other type non-metallic structural materials and methods of construction using these materials. Student fee charged.

Total Contact Hrs: 157.00

Lecture Hrs: 41.00

Lab Hrs: 116.00

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$158.00

AMT0140C AIRCRAFT WELDING (1.50 Credits)

A theory and practice of welding methods used in aircraft construction and repair is thoroughly covered with emphasis on gas welding and advanced work in heli arc welding. Lab fee is required.

Total Contact Hrs: 40.00

Lecture Hrs: 15.00

Lab Hrs: 25.00

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$95.00

AMT0160C AIRFRAME INSPECTION (0.50 Credits)

Students will acquire the knowledge and skills needed to perform a 100 hour inspection of an aircraft. The student will demonstrate knowledge of FARs by checking appropriate A.D.'s classifying repairs, and pinpointing specific service problems. The student will complete the required maintenance forms, records, and inspection reports required by Federal Air Regulations. Student fee charged.

Total Contact Hrs: 20.00

Lecture Hrs: 5.00

Lab Hrs: 15.00

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$27.00

AMT0200C LANDING GEAR SYSTEMS (3.00 Credits)

Student will receive training in the proper methods of inspection, servicing and repair of landing gear retraction systems, shock struts, brakes, wheels, tires and steering systems. Rigging of various types retractable landing gear systems will be covered in detail. Student fee charged.

Total Contact Hrs: 85.00

Lecture Hrs: 35.00

Lab Hrs: 50.00

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$50.00

AMT0210C HYDRAULIC AND PNEUMATICS SYSTEMS (2.50 Credits)

The student will study the theory of operation, maintenance requirements, and adjustments of various hydraulic components and systems. The course will provide the student with the knowledge of pneumatics as used in aircraft operation. The course covers fluid flow, identifies the various actuating units, type of seals, pumps, and differences between hydraulics and pneumatics. Student fee charged.

Total Contact Hrs: 75.00

Lecture Hrs: 35.00

Lab Hrs: 40.00

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$53.00

AMT0220C CABIN ATMOSPHERE CONTROL SYSTEMS (1.50 Credits)

This unit covers the various systems used to condition air and cabin pressurization as well as practical experience in inspecting, checking, troubleshooting, and servicing the oxygen system. Student fee charged.

Total Contact Hrs: 50.00

Lecture Hrs: 20.00

Lab Hrs: 30.00

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$27.00

AMT0230C AIRCRAFT INSTRUMENTS SYSTEMS (1.00 Credits)

A basic familiarization of aircraft instruments and their function to include removal, installation, and the installed testing of such instruments. Student fee charged.

Total Contact Hrs: 25.00

Lecture Hrs: 15.00

Lab Hrs: 10.00

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$31.00

AMT0240C COMMUNICATIONS AND NAVIGATION SYSTEMS (1.00 Credits)

This course introduces the student with basic auto pilot operation and familiarizes him/her with the installation requirements and use of the various communication and navigation systems. Student fee charged.

Total Contact Hrs: 30.00

Lecture Hrs: 25.00

Lab Hrs: 5.00

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$16.00

AMT0250C AIRCRAFT FUEL SYSTEMS (1.50 Credits)

The student is provided with the knowledge and skills needed to maintain fuel systems and fuel system components. He/she will be able to inspect, check, maintain, and repair aircraft fuel system components, fuel dump systems, fuel management and transfer systems, and perform refueling operations. Student fee charged.

Total Contact Hrs: 40.00

Lecture Hrs: 17.00

Lab Hrs: 23.00

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$21.00

AMT0260C AIRCRAFT ELECTRICAL SYSTEMS (3.50 Credits)

The types and characteristics of aircraft electrical circuits and components are compared and evaluated. Advanced electrical systems as used in corporate and airline aircraft are studied. The course includes troubleshooting and repairs of AC and DC electrical systems and equipment. Student fee charged.

Total Contact Hrs: 100.00

Lecture Hrs: 45.00

Lab Hrs: 55.00

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$84.00

AMT0270C POSITION AND WARNING SYSTEMS (1.00 Credits)

This course presents the student with the inspection, servicing and maintaining of position and warning systems. Included in this area are navigation lights, beacons, and lights indicating the position of various aircraft components. Student fee charged.

Total Contact Hrs: 30.00

Lecture Hrs: 10.00

Lab Hrs: 20.00

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$25.00

AMT0285C ICE, RAIN, & FIRE PROTECTION (1.00 Credits)

Introduces the student to the basics of ice and rain control as it relates to aircraft surfaces, propellers, windshields, and other components. Methods of ice prevention and ice elimination are taught, providing the student with the knowledge and skills needed in the operation, inspection, checking, troubleshooting, and repair of airframe fire detecting and extinguishing systems. Student fee charged.

Total Contact Hrs: 30.00

Lecture Hrs: 10.00

Lab Hrs: 20.00

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$32.00

AMT0300C RECIPROCATING ENGINES (5.00 Credits)

The course covers theory and fundamental requirements for aircraft engines, basic parts of internal combustion engines, 2 stroke and 4 stroke cycle, power measurements and calculations, conversion of heat energy into mechanical energy, horsepower, piston displacement, compression ratio, types of horsepower, crankcase assembly, reduction gearing, crankshafts, and rod assemblies, cylinder and piston assemblies, and bearings used in reciprocating engines. Student fee charged.

Total Contact Hrs: 152.25

Lecture Hrs: 45.00

Lab Hrs: 107.25

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$116.00

AMT0312C TURBINE ENGINES & TURBINE ENGINES TROUBLESHOOTING (4.00 Credits)

A thorough study of the theory of operation of turbine engines and the function of the related engine components such as compressors, fuel controls, fuel pumps, governors, turbines, etc. Course encounters disassembly, inspection, minimal repairs reassembly test run, and final adjustment. Corequisites: AMT0300, AMT0400, AMT0420, AMT0320. Student fee charged.

Total Contact Hrs: 147.00

Lecture Hrs: 50.00

Lab Hrs: 97.00

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$63.00

AMT0320C ENGINE INSPECTION (1.00 Credits)

A course of study which details the correct methods of engine removal and installation, inspection and run up testing, including the final adjustments according to FAA regulations and manufacturer's recommendations. Student fee charged.

Total Contact Hrs: 32.50

Lecture Hrs: 10.00

Lab Hrs: 22.50

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$16.00

AMT0400C ENGINE INSTRUMENT SYSTEMS (1.00 Credits)

Students will have a knowledge of operation, installation, marking and interpretation of powerplant instruments powered by or actuated by non-electrical means. They will be able to install, adjust, and calibrate instruments in accordance with FAA and manufacturer's recommendations. This course will provide experience in inspection, checking, servicing, troubleshooting, and repair of engine instrument systems that are electrical in nature. Student fee charged.

Total Contact Hrs: 31.50

Lecture Hrs: 12.00

Lab Hrs: 19.50

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$27.00

AMT0410C ENGINE FIRE PROTECTION SYSTEMS (0.50 Credits)

To provide the student with the knowledge and skills needed in the operation, inspection, checking, troubleshooting, and repair of engine fire detecting and extinguishing systems. Student fee charged.

Total Contact Hrs: 15.75

Lecture Hrs: 5.75

Lab Hrs: 10.00

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$21.00

AMT0420C ENGINE ELECTRICAL SYSTEMS & APU'S (2.00 Credits)

This course provides knowledge and skills necessary to perform electrical repairs, installations, adjustments, and service. The subject area includes alternators, generators, voltage regulation, and paralleling of generators. The student will be introduced to the operational principles of auxiliary power units. Student fee charged.

Total Contact Hrs: 69.25

Lecture Hrs: 31.00

Lab Hrs: 38.25

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$14.00

AMT0435C LUBRICATION SYSTEMS (1.00 Credits)

Provides a comprehensive knowledge of the purpose and function of lubricants and lubrication system for powerplants. Gives experience in identifying and selecting lubricants, as well as, inspecting, checking, servicing and troubleshooting repair of the system and components. Student fee charged.

Total Contact Hrs: 42.00

Lecture Hrs: 16.00

Lab Hrs: 26.00

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$29.00

AMT0440C IGNITION SYSTEMS (3.00 Credits)

Students will have knowledge of the operation, repair, inspection, and service of reciprocating and jet power plant ignition systems. They will be able to overhaul and troubleshoot the various components of each system. Student fee charged.

Total Contact Hrs: 84.00

Lecture Hrs: 37.00

Lab Hrs: 47.00

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$97.00

AMT0450C ENGINE FUEL SYSTEMS (1.00 Credits)

Student is provided with knowledge and skills needed to maintain fuel system components. Student will be able to inspect, maintain, check, and repair engine fuel system components. Student fee charged.

Total Contact Hrs: 21.00

Lecture Hrs: 8.50

Lab Hrs: 12.50

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$24.00

AMT0451C FUEL METERING SYSTEMS (2.00 Credits)

Provides the student with the necessary information and practice necessary to inspect, check, service, troubleshoot, and repair reciprocating and turbine fuel metering system. The theory and practical application of carburetion, fuel injection systems, and water injection systems are also learned. Fuel pumps, filters, and strainers are discussed and practical experience is gained in these areas. Student fee charged.

Total Contact Hrs: 63.00

Lecture Hrs: 26.50

Lab Hrs: 36.50

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$44.00

AMT0460C INDUCTION SYSTEMS (1.00 Credits)

Gives student the knowledge and experience needed to service and maintain induction systems, superchargers, and exhaust systems. Material covered includes controls, indicators, theory of operation and inspection criteria. Student fee charged.

Total Contact Hrs: 26.25

Lecture Hrs: 11.50

Lab Hrs: 14.75

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$23.00

AMT0475C ENGINE COOLING & EXHAUST SYSTEMS (1.00 Credits)

This course provides the student with an understanding of the need for the various types of engine cooling systems. Gives experience in the inspection, checking, servicing, troubleshooting and repairing of engine cooling system. This course will also enable the student to comprehend the function of exhaust systems including turbo charging and thrust reversers. The student will gain experience in inspection, checking, troubleshooting, and repairing various types of exhaust systems. Student fee charged.

Total Contact Hrs: 26.25

Lecture Hrs: 11.25

Lab Hrs: 15.00

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$32.00

AMT0490C PROPELLERS AND UNDUCTED FANS (2.00 Credits)

This unit of instruction is designed to cover aircraft engine and turbo prop installations. Areas dealt with are: propeller fundamentals and terminology, synchronizing and ice control systems, identification and selection of propeller lubricants, balancing of propellers, propeller control systems, propeller governing systems, and installation, troubleshooting and removal of propellers. The theory of unducted fans is presented. Student fee charged.

Total Contact Hrs: 89.25

Lecture Hrs: 41.00

Lab Hrs: 48.25

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$35.00

AMT0940 AVIATION MAINTENANCE PRACTICUM (0.00 Credits)

In this course, students will apply knowledge gained in aviation maintenance lecture and lab courses to prepare for Federal Aviation Administration (FAA) oral, written, and practical test(s). Under supervision of an instructor, students will perform a variety of tasks including hands-on projects, knowledge test preparation, or other activities as determined by the instructor and student. Each student will be required to develop an individually tailored plan which will be approved by the instructor.

Total Contact Hrs: 50.00

Clinical Hrs: 50.00

AMT1001C BASIC ELECTRICITY (2.00 Credits)

The study laws and theory of electricity and its application to aircraft systems, components, and circuits, to include practical knowledge of the different types of complex circuitry found in modern aircraft. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe and/or powerplant rating.

Total Contact Hrs: 89.25

Lecture Hrs: 42.25

Lab Hrs: 47.00

Fees: LABORATORY FEE \$31.00

AMT1011C AIRCRAFT DRAWINGS (1.00 Credits)

This course covers aircraft drawings, care and use of blueprints, isometrics, orthographic and auxiliary projection lines and sections, dimensions, limits, tolerances and allowances, geometric, construction, practical layout work and identification of standard parts and materials, use of instruments, drawing and interpretation of free hand sketches of repairs and alterations, and use of various types of charts and graphs. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe and/or powerplant rating.

Total Contact Hrs: 21.00

Lecture Hrs: 12.00

Lab Hrs: 9.00

Fees: LABORATORY FEE \$12.00

AMT1021C WEIGHT AND BALANCE (1.00 Credits)

Familiarizes the student with the importance of weight and balance control, the procedures for weighting an aircraft, the computations necessary to arrive at current and balance data, and the disposition of weight and balance forms and records. The use of loading graphs and charts relating to the aircraft's center gravity envelope is taught. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe and/or powerplant rating.

Total Contact Hrs: 33.00

Lecture Hrs: 20.50

Lab Hrs: 12.50

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$13.00

AMT1031C FLUID LINES AND FITTINGS (1.00 Credits)

Prepares the student to fabricate and install rigid and flexible lines and fittings with regard to bends, tools, and lubricants. Provides training in the area of identification of materials, fittings and routing of fluid lines. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe and/or powerplant rating.

Total Contact Hrs: 26.25

Lecture Hrs: 10.00

Lab Hrs: 16.25

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$44.00

AMT1041C MATERIALS AND PROCESSES (2.00 Credits)

Familiarizes students with the methods of inspection and evaluation. Provides instruction in correct shop practices and procedures and the use of special tools. Areas covered are torque values and torquing methods, safety wiring, use of precision measuring equipment, shop safety, and technician's ethics and legal responsibilities. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe and/or powerplant rating.

Total Contact Hrs: 84.00

Lecture Hrs: 46.00

Lab Hrs: 38.00

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$19.00

AMT1050C GROUND OPERATIONS AND SERVICING (1.00 Credits)

Familiarizes the student with the proper methods of starting ground operating servicing and securing aircraft. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe and/or powerplant rating.

Total Contact Hrs: 31.50

Lecture Hrs: 10.50

Lab Hrs: 21.00

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$14.00

AMT1060C CLEANING AND CORROSION CONTROL (1.00 Credits)

Provides experience in detecting, identifying, removal, and treatment of the various types of corrosion found on ferrous and nonferrous metals. The course deals with the types of cleaners and methods of cleaning aircraft and aircraft components. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe and/or powerplant rating.

Total Contact Hrs: 26.25

Lecture Hrs: 12.00

Lab Hrs: 14.25

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$16.00

AMT1070C MATHEMATICS FOR AVIATION (1.00 Credits)

Reviews principles of mathematical functions and studies their application to aircraft and powerplant maintenance operations. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe and/or powerplant rating. This course covers Airman Certification Standards AM.I.H.

Total Contact Hrs: 21.00

Lecture Hrs: 14.00

Lab Hrs: 7.00

Fees: LABORATORY FEE \$12.00

AMT1081C FAR'S, FORMS, PRIVILEGES, & HUMAN FACTORS (1.00 Credits)

Familiarizes the student with FAA regulations, advisory circulars, and other government and industry publications, proper terminology and procedures for the execution of log books and major repair and alteration forms, and privileges and limitations as they apply to the certified mechanic. The course also covers human factors issues related to aviation and aviation safety. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe and/or powerplant rating. This course covers FAA Airman Certification Standards AM.I.I and AM.I.L.

Total Contact Hrs: 42.00

Lecture Hrs: 22.00

Lab Hrs: 20.00

Fees: LABORATORY FEE \$19.00

AMT1090C BASIC PHYSICS (1.00 Credits)

Provides an understanding of energy and matter and how their relationships apply to aircraft maintenance. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe and/or powerplant rating.

Total Contact Hrs: 26.25

Lecture Hrs: 17.00

Lab Hrs: 9.25

Fees: LABORATORY FEE \$12.00

AMT1107C NON-METALLIC STRUCTURES (2.00 Credits)

This course covers the repair, maintenance, and fabrication of aircraft non-metallic structures and assemblies, including wood structures, aircraft coverings, composite materials, and aircraft windows. This course covers Federal Aviation Administration (FAA) Airman Certification Standards AM.II.B, and is required under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe rating.

Total Contact Hrs: 85.25

Lecture Hrs: 22.25

Lab Hrs: 63.00

AMT1111C AIRCRAFT WOOD STRUCTURES (1.00 Credits)

Aircraft wood structures are covered in this section and familiarizes the student with the different types of wood used in aircraft structures as well as methods of repair to wood structures. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe rating.

Total Contact Hrs: 13.50

Lecture Hrs: 11.00

Lab Hrs: 2.50

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$12.00

AMT1116C AIRCRAFT COVERINGS (1.00 Credits)

Students will gain knowledge and skills to inspect, test, and repair fabric covering materials. The student will be able to select and apply all types of fabric covering, including the synthetics types, and use of proper materials to finish the material. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe rating.

Total Contact Hrs: 13.50

Lecture Hrs: 9.00

Lab Hrs: 4.50

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$12.00

AMT1127C AIRCRAFT FINISHES (1.00 Credits)

Students will acquire the ability to properly use a paint spray gun to apply various types of finishes on a variety of surfaces. The student will be able to apply trim lines and aircraft identification number, touch up paint defects, and identify and select aircraft finishing materials. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe rating.

Total Contact Hrs: 31.25

Lecture Hrs: 10.50

Lab Hrs: 20.75

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$44.00

AMT1131C SHEETMETAL & NON-METALLIC STRUCTURES (4.00 Credits)

The student is provided with knowledge and skills needed to inspect, maintain, and repair sheet metal structures and components. The course provides the student an introduction to fiberglass, composites and other types of non-metallic structural material and methods of construction using these materials. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe rating.

Total Contact Hrs: 155.25

Lecture Hrs: 40.50

Lab Hrs: 114.75

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$108.00

AMT1132C METALLIC STRUCTURES (4.00 Credits)

This course covers the repair, maintenance, and fabrication of aircraft metallic structures, including sheetmetal fabrication and assembly and welding. This course covers Federal Aviation Administration (FAA) Airman Certification Standards AM.II.A, and is required under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe rating.

Total Contact Hrs: 114.75

Lecture Hrs: 30.00

Lab Hrs: 84.75

AMT1141C AIRCRAFT WELDING (1.00 Credits)

A theory and practice of welding methods used in aircraft construction and repair is thoroughly covered with emphasis on gas welding and advanced work in heli-arc welding. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe rating.

Total Contact Hrs: 40.50

Lecture Hrs: 15.25

Lab Hrs: 25.25

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$105.00

AMT1151C FLIGHT CONTROLS & ROTORCRAFT FUNDAMENTALS (4.00 Credits)

This course covers the repair and maintenance of fixed-wing and rotorcraft flight controls. This course covers Federal Aviation Administration (FAA) Airman Certification Standards AM.II.C and AM.II.N, and is required under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe rating.

Total Contact Hrs: 101.25

Lecture Hrs: 26.50

Lab Hrs: 74.75

AMT1156C ASSEMBLY & RIGGING (2.00 Credits)

Students will explain and compare aircraft design features in subsonic, transonic, and supersonic aircraft. They will be able to assemble and rig various aircraft control systems, analyzing and correcting faulty flight characteristics. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with a powerplant rating.

Total Contact Hrs: 67.50

Lecture Hrs: 20.75

Lab Hrs: 46.75

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$18.00

AMT1161C AIRFRAME INSPECTION (1.00 Credits)

Students will acquire the knowledge and skills needed to perform a 100 hour inspection of an aircraft. The student will demonstrate knowledge of FARs by checking appropriate airworthiness directives, classifying repairs, and pinpointing specific service problems. The student will complete the required maintenance forms, records, and inspection reports required by Federal Aviation Regulations. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe rating.

Total Contact Hrs: 27.00

Lecture Hrs: 6.75

Lab Hrs: 20.25

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$22.00

AMT1201C AIRCRAFT LANDING GEAR SYSTEMS (2.00 Credits)

Students will receive training in the proper methods of inspection, servicing and repair of landing gear retraction systems, shock struts, brakes, wheels, tires and steering systems. Rigging of various types of retractable landing gear systems will be covered in detail. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe rating. This course covers FAA Airman Certification Standards AM.II.E.

Total Contact Hrs: 98.75

Lecture Hrs: 40.50

Lab Hrs: 58.25

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$34.00

AMT1211C HYDRAULIC AND PNEUMATIC SYSTEMS (2.00 Credits)

The student will study the theory of operation, maintenance requirements, and adjustments of various hydraulic components and systems. The course will provide the student with the knowledge of pneumatics as used in aircraft operation. The course covers fluid flow, identifies the various actuating units, types of seals, pumps, and differences between hydraulics and pneumatics. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe rating.

Total Contact Hrs: 74.25

Lecture Hrs: 34.75

Lab Hrs: 39.50

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$58.00

AMT1221C CABIN ATMOSPHERE CONTROL SYSTEMS (1.00 Credits)

This course covers the various systems used to condition air and cabin pressurization as well as practical experience in inspecting, checking, troubleshooting, and servicing the oxygen system. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe rating.

Total Contact Hrs: 47.25

Lecture Hrs: 19.00

Lab Hrs: 28.25

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$13.00

AMT1222C WATER & WASTE SYSTEMS (1.00 Credits)

This course introduces the student to water systems and waste management systems aboard an aircraft. This course covers Federal Aviation Administration (FAA) Airman Certification Standards AM.II.O, and is required under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe rating.

Total Contact Hrs: 13.50

Lecture Hrs: 4.50

Lab Hrs: 9.00

AMT1231C AVIONICS INSTALLATION AND TROUBLESHOOTING I (3.00 Credits)

This course is designed as a study of the installation processes of modern avionics systems, such as VHF communications, VHF navigation, ADF, radar, autopilots and others. Students will receive hands-on experience in the installation of avionics systems, fabrication of electrical harnesses, and testing of systems after installation. Students will begin preparation for element three of the FCC general radiotelephone operator's license (GRPL) examination.

Total Contact Hrs: 48.00

Lecture Hrs: 16.00

Lab Hrs: 32.00

Fees: LABORATORY FEE \$26.00

Complete all the courses in the following option:

- Prerequisite: AVS1010 (minimum grade: C)

AMT1232C AIRCRAFT INSTRUMENT SYSTEMS (1.00 Credits)

This course provides a basic familiarization of aircraft instruments and their function to include removal, installation, and the installed testing of such instruments. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe rating.

Total Contact Hrs: 33.75

Lecture Hrs: 20.25

Lab Hrs: 13.50

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$13.00

AMT1241C COMMUNICATION & NAVIGATION SYSTEMS (1.00 Credits)

This course introduces the student with basic auto pilot operation and the installation requirements and use of the various communication and navigation systems of an aircraft. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe rating.

Total Contact Hrs: 33.75

Lecture Hrs: 28.25

Lab Hrs: 5.50

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$12.00

AMT1251C AIRCRAFT FUEL SYSTEMS (1.00 Credits)

The student is provided with the knowledge and skills needed to maintain fuel systems and fuel system components. The student will be able to inspect, check, maintain, and repair aircraft fuel system and repair aircraft fuel system components, fuel dump systems, fuel management and transfer systems, and perform refueling Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe rating.

Total Contact Hrs: 40.50

Lecture Hrs: 17.25

Lab Hrs: 23.25

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$19.00

AMT1261C AVIONICS LINE MAINTENANCE FUNDAMENTALS (3.00 Credits)

The purpose of this program is to prepare students for employment as radio mechanics and as avionics technicians. The course content includes, but is not limited to, troubleshooting, repair and installation of airborne radio communications, radio navigation, and radar equipment systems in accordance with regulatory and industry standards. Also included is instruction in basics of AM and FM transmitters and receivers and avionics equipment. Skills preparation for passing licensing/certification tests required by industry forms an integral part of the curriculum.

Total Contact Hrs: 48.00

Lecture Hrs: 16.00

Lab Hrs: 32.00

Fees: LABORATORY FEE \$26.00

AMT1263C AIRCRAFT ELECTRICAL SYSTEMS (3.00 Credits)

The types and characteristics of aircraft electrical and components are compared and evaluated. Advanced electrical systems as used in corporate and airline aircraft are studied. The course includes troubleshooting and repairs of AC and DC electrical systems and equipment. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe rating.

Total Contact Hrs: 101.25

Lecture Hrs: 45.50

Lab Hrs: 55.75

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$43.00

AMT1271C POSITION AND WARNING SYSTEMS (1.00 Credits)

This course presents the student with the inspection, servicing and maintaining of position and warning systems. Included in the area are navigation lights, beacons, and lights indicating the position of various aircraft components. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe rating.

Total Contact Hrs: 13.50

Lecture Hrs: 4.50

Lab Hrs: 9.00

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$12.00

AMT1286C ICE, RAIN, & FIRE PROTECTION (1.00 Credits)

Introduces the student to the basics of ice and rain control as it relates to aircraft surfaces, propellers, windshields, and other components. Methods of ice prevention and ice elimination are taught, provides the student with the knowledge and skills needed in the operation, inspection, checking, troubleshooting, and repair of airframe fire detecting and extinguishing systems. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with an airframe rating.

Total Contact Hrs: 28.75

Lecture Hrs: 9.50

Lab Hrs: 19.25

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$12.00

AMT1313C TURBINE ENGINES (4.00 Credits)

A thorough study of the theory of operation of turbine engines and the function of the related engine components such as compressors, fuel controls, fuel pumps, governors, turbines, etc. Course encounters disassembly, inspection, minimal repairs reassembly test run, and final adjustment. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with a powerplant rating.

Total Contact Hrs: 141.75

Lecture Hrs: 48.25

Lab Hrs: 93.50

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$122.00

AMT1321C ENGINE INSPECTION (1.00 Credits)

A course study which details the correct methods of engine removal and installation, inspection and run up testing, including the final adjustments according to FAA regulations and manufacturer's recommendations. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with a powerplant rating.

Total Contact Hrs: 33.75

Lecture Hrs: 10.50

Lab Hrs: 23.25

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$14.00

AMT2233C AVIONICS INSTALLATION AND TROUBLESHOOTING II (3.00 Credits)

This course is a continuation of Avionics Installation and Troubleshooting I. Students will explore more complex avionics installations projects. Content includes but is not limited to troubleshooting, repair and installation of airborne radio communications, radio navigation and radar equipment systems in accordance with regulatory and industry standards. Also included is instruction in basics of AM and FM transmitters and receivers and avionics equipment. Skills preparation for passing licensing/certification tests required by industry forms an integral part of the curriculum. The course content also includes training in communication, leadership, human relations and employability skills; and safe, efficient work practices. Students will take the Element 3 of the FCC General Radiotelephone Operator's License (GRPL) examination.

Total Contact Hrs: 48.00

Lecture Hrs: 16.00

Lab Hrs: 32.00

Fees: LABORATORY FEE \$98.00

Complete all the courses in the following option:

- Prerequisite: AMT1231C (minimum grade: C)

AMT2262C AVIONICS LINE MAINTENANCE OPERATIONS (3.00 Credits)

The purpose of this program is to prepare students for employment as radio mechanics and as avionics technicians. The course content includes, but is not limited to, troubleshooting, repair and installation of airborne radio communications, radio navigation and radar equipment systems in accordance with regulatory and industry standards. Also included is instruction in basics of AM and FM transmitters and receivers and avionics equipment. Skills preparation for passing licensing/certification tests required by industry forms an integral part of the curriculum. The course content also includes training in communication, leadership, human relations and employability skills; and safe, efficient work practices.

Total Contact Hrs: 48.00

Lecture Hrs: 24.00

Lab Hrs: 24.00

Fees: LABORATORY FEE \$26.00

Complete all the courses in the following option:

- Prerequisite: AMT1261C (minimum grade: C)

AMT2301C RECIPROCATING ENGINES (5.00 Credits)

The course covers theory and fundamental requirements aircraft engines; basic parts of internal combustion engines, 2 stroke and 4 stroke cycle, power measurements and calculations conversion of heat energy into mechanical energy, horsepower, piston displacement, compression ratio, types of horsepower, crankcase assembly reduction gearing, crankshafts and rod assemblies, cylinder and piston assemblies, and bearings used in reciprocating engines. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with a powerplant rating.

Total Contact Hrs: 148.50

Lecture Hrs: 44.00

Lab Hrs: 104.50

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$94.00

AMT2401C ENGINE INSTRUMENT SYSTEMS (1.00 Credits)

Students will have a knowledge of operation, installation, making and interpretation of powerplant instruments powered by or actuated by non-electrical means. They will be able to install, adjust, and calibrate these instruments in accordance with FAA and manufacture's recommendations. This course will provide experience in inspection checking, servicing, troubleshooting, and repair of engine instrument systems that are electrical in nature. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with a powerplant rating.

Total Contact Hrs: 40.50

Lecture Hrs: 15.50

Lab Hrs: 25.00

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$13.00

AMT2411C ENGINE FIRE PROTECTION SYSTEMS (1.00 Credits)

This course is designed to provide the student with the knowledge and skills needed in the operation, inspection, checking, troubleshooting, and repair of engine fire detecting and extinguishing systems. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with a powerplant rating.

Total Contact Hrs: 13.50

Lecture Hrs: 5.00

Lab Hrs: 8.50

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$13.00

AMT2421C ENGINE ELECTRICAL SYSTEMS & APUS (2.00 Credits)

This course provides knowledge and skills necessary to perform electrical repairs, installations, adjustments, and service. The subject area includes alternators, generators, voltage regulation, and paralleling of generators. The student will be introduced to the operational principles of auxiliary power units. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with a powerplant rating.

Total Contact Hrs: 69.25

Lecture Hrs: 31.00

Lab Hrs: 38.25

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$47.00

AMT2436C LUBRICATION SYSTEMS (1.00 Credits)

Provides a comprehensive knowledge of the purpose and function of lubricants and lubrication systems for powerplants. Gives experience in identifying and selecting lubricants, as well as, inspecting, checking, servicing and troubleshooting repair of the system and components. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with a powerplant rating.

Total Contact Hrs: 40.50

Lecture Hrs: 15.50

Lab Hrs: 25.00

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$18.00

AMT2441C IGNITION & STARTING SYSTEMS (2.00 Credits)

Students will have knowledge of the operation, repair, inspection, and service reciprocating and jet power plant ignition systems. They will be able to overhaul and troubleshoot the various components of each system. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with a powerplant rating.

Total Contact Hrs: 85.25

Lecture Hrs: 37.50

Lab Hrs: 47.75

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$44.00

AMT2452C ENGINE FUEL SYSTEMS (1.00 Credits)

Student is provided with knowledge and skills needed to maintain fuel system components. Student will be able to inspect, maintain check, and repair engine fuel system components. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with a powerplant rating.

Total Contact Hrs: 20.25

Lecture Hrs: 8.25

Lab Hrs: 12.00

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$55.00

AMT2453C FUEL METERING SYSTEMS (2.00 Credits)

Provides the student with the necessary information and practice necessary to inspect, check, service, troubleshoot, and repair reciprocating and turbine fuel metering systems. The theory and practical application of carburetion, fuel injection systems, and water injection systems are also learned. Fuel pumps, filters, and strainers are discussed and practical experience is gained in these areas. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with a powerplant rating.

Total Contact Hrs: 60.75

Lecture Hrs: 25.50

Lab Hrs: 35.25

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$16.00

AMT2461C INDUCTION & ENGINE AIRFLOW SYSTEMS (1.00 Credits)

Gives student the knowledge and experience needed to service and maintain induction systems, superchargers, and exhaust systems. Material covered includes controls, indicators, theory of operation and inspection criteria. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with a powerplant rating.

Total Contact Hrs: 31.25

Lecture Hrs: 13.75

Lab Hrs: 17.50

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$14.00

AMT2471C ENGINE COOLING & EXHAUST (1.00 Credits)

This course provides the student with an understanding of the need for the various types of engine cooling systems. Gives experience in the inspection, checking, servicing, troubleshooting and repairing of engine cooling systems. This course will also enable the student to comprehend the function of exhaust systems including turbo charging and thrust reversers. The student will gain experience in inspection, checking, troubleshooting, and repairing various types of exhaust systems. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with a powerplant rating.

Total Contact Hrs: 27.00

Lecture Hrs: 11.50

Lab Hrs: 15.50

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$14.00

AMT2491C PROPELLERS AND UNDUCTED FANS (2.00 Credits)

Areas dealt with are: propeller fundamentals and terminology, synchronizing and ice control systems, identification and selection of propeller lubricants, balancing of propellers, propeller control systems, propeller governing systems, and installation, troubleshooting and removal of propellers. The theory of unducted fans is presented. This course is required by the Federal Aviation Administration under 14 CFR Part 147 for those pursuing a mechanic certificate with a powerplant rating.

Total Contact Hrs: 87.75

Lecture Hrs: 40.25

Lab Hrs: 47.50

Fees: EDU/ACCIDENT INSURANCE \$4.75, LABORATORY FEE \$28.00