

# AIRCRAFT/MAINTENANCE TECHNOLOGY (AMT)

## **AMT124 / Aircraft Forms, Regulations, Weight and Balance, Drawings and Ground Operations**

### **5 Credits / 7.0 Periods for Lecture & Lab**

Federal Aviation maintenance regulations, publications, forms, and records. Overview of technician's privileges and limitations. Perform aircraft weight and balance, aircraft ground operations, and fuel servicing techniques. Interpretation and production of drawings, symbols, and schematic diagrams. Emphasis on safety and other human factors.

Prerequisites: Appropriate District English, Reading, and Math placement into ENG101, RDG100 and MAT12+, or higher or a grade of C or better in ENG101 and RDG100 and (MAT120 or higher level mathematics course).

**Division:** Aviation and Applied Technology

## **AMT126 / Fundamentals of Mathematics and Electricity**

### **9 Credits / 11.0 Periods for Lecture & Lab**

Mathematical computation of fundamental electrical circuit parameters. Basic definitions, laws, and concepts. Schematics, wiring, and parts placement diagrams. Test and troubleshoot electrical and electronic components and circuits. Prerequisites: Appropriate District English, Reading, and Math placement into ENG101, RDG100 and MAT12+, or higher or a grade of C or better in ENG101 and RDG100 and (MAT120 or higher level mathematics course).

**Division:** Aviation and Applied Technology

## **AMT128 / Physics for Aviation, Corrosion Control, Materials, Hardware, Processes, Fluid Lines and Fittings**

### **5 Credits / 7.0 Periods for Lecture & Lab**

General concepts of fluid lines and fittings, aircraft materials, hardware and processes, cleaning and corrosion control, physics for aviation, inspection concepts and techniques. Prerequisites: Appropriate District English, Reading, and Math placement into ENG101, RDG100 and MAT12+, or higher or a grade of C or better in ENG101 and RDG100 and (MAT120 or higher level mathematics course).

**Division:** Aviation and Applied Technology

## **AMT220 / Fundamentals of Bonded Composite and Wooden Aircraft Structures, Fabric Coverings and Finishes**

### **3 Credits / 5.0 Periods for Lecture & Lab**

Concepts of aircraft structural design and materials including bonded composites, wooden structures, fabric coverings, and protective finishing maintenance. Prerequisites: A grade of C or better in (AMT124, AMT126, and AMT128) or permission of Program Director.

**Division:** Aviation and Applied Technology

## **AMT222 / Atmosphere Control, Fire Detection, Ice and Rain Protection Systems**

### **4 Credits / 6.0 Periods for Lecture & Lab**

Operation and maintenance of aircraft auxiliary systems. Inspection, servicing, troubleshooting, and repair of environmental control, ice and rain control, fire protection, and warning systems. Prerequisites: A grade of C or better in (AMT124, AMT126, and AMT128) or permission of Program Director.

**Division:** Aviation and Applied Technology

## **AMT224 / Aircraft Metallic Structures**

### **5 Credits / 7.0 Periods for Lecture & Lab**

Inspection, fabrication, and repair techniques of aircraft metallic structures. Prerequisites: A grade of C or better in (AMT124, AMT126, and AMT128) or permission of Program Director.

**Division:** Aviation and Applied Technology

## **AMT226 / Aircraft Hydraulics, Pneumatics, Fuel, Landing Gear, Positioning and Warning Systems**

### **7 Credits / 9.0 Periods for Lecture & Lab**

Identification, inspection, troubleshooting, and repair techniques of aircraft hydraulics, pneumatics, landing gear, positioning and warning, and fuel systems. Prerequisites: A grade of C or better in (AMT124, AMT126, and AMT128) or permission of Program Director.

**Division:** Aviation and Applied Technology

## **AMT228 / Aircraft Electrical, Instruments, Communication and Navigation Systems**

### **7 Credits / 9.0 Periods for Lecture & Lab**

Operation, inspection, installation, servicing, and troubleshooting of aircraft electrical, Direct Current (DC), Alternating Current (AC), instruments, communication, navigation systems, and fuel indication systems. Prerequisites: A grade of C or better in (AMT124, AMT126, and AMT128) or permission of Program Director.

**Division:** Aviation and Applied Technology

## **AMT230 / Airframe Assembly and Inspection**

### **6 Credits / 8.0 Periods for Lecture & Lab**

Airframe inspection and special inspection techniques, reporting, and documentation procedures. Prerequisites: A grade of C or better in (AMT124, AMT126, and AMT128) or permission of Program Director.

**Division:** Aviation and Applied Technology

## **AMT263 / Aircraft Turbine Engines**

### **5 Credits / 7.0 Periods for Lecture & Lab**

Turbine engine theory and maintenance. Focuses on operational characteristics and engine test techniques on the aircraft and in test cells. Prerequisites: A grade of C or better in (AMT124, AMT126, and AMT128) or permission of Program Director.

**Division:** Aviation and Applied Technology

## **AMT264 / Aircraft Reciprocating Engines**

### **7 Credits / 9.0 Periods for Lecture & Lab**

Reciprocating engines theory, design, and operations. Focusing on techniques used in troubleshooting, overhaul, inspection, and repair of opposed and radial engines. Prerequisites: A grade of C or better in (AMT124, AMT126, and AMT128) or permission of Program Director.

**Division:** Aviation and Applied Technology

## **AMT266 / Engine Fuel Systems, Fuel Metering and Induction System**

### **6 Credits / 8.0 Periods for Lecture & Lab**

Inspection, servicing, troubleshooting, overhaul, and repair of aircraft fuel delivery systems, fuel metering devices, turbochargers, superchargers, and induction system principles of operation and design. Prerequisites: A grade of C or better in (AMT124, AMT126, and AMT128) or permission of Program Director.

**Division:** Aviation and Applied Technology

## **AMT268 / Engine Electrical, Ignition and Starter Systems**

### **6 Credits / 8.0 Periods for Lecture & Lab**

Maintain powerplant electrical systems including inspecting, servicing, troubleshooting, overhauling, and repairing engine electrical, ignition, starter systems, and components. Prerequisites: A grade of C or better in (AMT124, AMT126, and AMT128) or permission of Program Director.

**Division:** Aviation and Applied Technology

**AMT270 / Engine Instruments, Fire Protection, Lubrication, Cooling, and Exhaust Systems**

**5 Credits / 7.0 Periods for Lecture & Lab**

Operation, inspection, and maintenance of engine instruments, fire detection and extinguishing, engine lubrication, cooling, and exhaust systems. Prerequisites: A grade of C or better in (AMT124, AMT126, and AMT128) or permission of Program Director.

**Division:** Aviation and Applied Technology

**AMT272 / Propeller Systems and Engine Inspections**

**4 Credits / 6.0 Periods for Lecture & Lab**

Propeller systems operation, inspection, troubleshooting, servicing, repair, and maintenance. Reciprocating and turbine engine inspection and documentation. Prerequisites: A grade of C or better in (AMT124, AMT126, and AMT128) or permission of Program Director.

**Division:** Aviation and Applied Technology