Aviation Maintenance Technology - Airframe

First Term		AAS
AMT104 Technical Preparation	5	5
AMT101 Basic Electricity	5	5
AMT105 Materials and Processes	5	5
ENG101 English Composition		3
	15	18
Second Term		
AMT103 Weight & Balance, Ground Svc. Corrosion Control	5	5
AMT110 Non-Metallic Structures	5	5
AMT111 Aircraft Sheetmetal Structures and Welding	5	5
MTH		3
	30	36
Third Term (Summer)		
AMT112 Airframe Systems I	5	5
AMT113 Airframe Systems II	5	5
History / Social or Behavioral Science Elective		3
	40	49
Fourth Term		
AMT114 Airframe Systems III	5	5
AMT115 Airframe Systems IV	5	5
History / Social or Behavioral Science Elective		3
Humanities and/or Fine Arts Elective		3
	50	65

Aviation Maintenance Technology - Powerplant

AMT101, AMT103, AMT104 & AMT105 Prerequisites

Fifth Term		AAS
AMP220 Reciprocating Engine Theory and Systems	5	5
AMP222 Reciprocating Engine Inspection and Propellers	5	5
AMP223 Reciprocating Engine Overhaul	5	5
	15	15

Sixth Term		AAS
AMP221 Turbine Engine Theory and Systems	5	5
AMP224 Turbine Engine Inspection and Overhaul	5	5
	10	25**

AVIATION MAINTENANCE TECHNOLOGY (AMT)

General

AMT 104. TECHNICAL PREPARATION. 5 hrs. This course introduces basic information necessary for entering students in aviation maintenance technology. Emphasis is placed on math and physics, and Federal Aviation Administration (FAA) and manufacturers' technical and legal publications. Upon completion, students should be able to make basic computations, apply principles of physics, compute weight and balance, use maintenance forms and records, state mechanic's privileges and limitations and interpret maintenance publications.
This is a CORE course.

AMT 101. BASIC ELECTRICITY 5 hrs. This course provides a study in electricity. Emphasis is placed on alternating current (AC) and direct current (DC) circuits and controls, electrical measurements, electrical test equipment, aircraft batteries, fundamental electronics, and semi-conductor devices. Upon completion, students should be able tosolve problems associated with electrical measurements, use basic electrical test equipment, and service aircraft batteries.
This is a CORE course.

AMT 105. MATERIALS AND PROCESSES. 5 hrs. This course introduces aircraft hardware and materials, precision measuring and nondestructive testing, aircraft ground operations, fuels and cleaning and corrosion control methods, and the use of aircraft drawings. Emphasis ison identification and selection of aircraft hardware, performance of non-destructive testing, fabrication and inspection of flexible fluid lines, identification of fuels, use of cleaning materials, and corrosion control programs. Upon completion, students shouldbe able to perform non-destructive tests, use precision measuring tools, fabricate and install rigid and flexible fluid lines, select hardware and fuels, and identify, read, create,and interpret aircraft drawings.
This is a CORE course.

AMT103. WEIGHT AND BALANCE, GROUND HANDLING AND SERVICING, CLEANING AND CORROSION CONTROL. 5hrs. This course introduces basic information necessary for enteringstudents in aviation maintenance technology. Emphasis is placed on aircraft weight and balance, handling and securing aircraft, cleaning and corrosion control. Upon completion,students should be able to conduct aircraft weight and balance, compute aircraft weight andbalance, handle and secure aircraft during ground operations, and cleaning and corrosion control.
This is a CORE course.

Airframe

AMT 110. NON-METALLIC STRUCTURES. 5 hrs. This course is a study of repairs to non-metallic aircraft surfaces and structures. Emphasis is placed on repairs to fabric surfaces and to wood, and composite structures. Upon completion, students should be able to repair fabric surfaces and apply finishing materials, make repairs to wood structures, layout and formcomposite repairs, and inspect/repair non-metallic components (windows, upholstery).
This is a CORE course.

AMT 111. AIRCRAFT SHEET METAL STRUCTURES AND WELDING. 5 hrs. This course introduces aircraft sheetmetal repairs. Emphasis is placed on the use of proper procedures, tools, and materials to complete sheetmetal repairs. Upon completion, students should be able to install conventional rivets; form, layout, and bend sheetmetal; install special rivets and fasteners; and inspect and repair sheetmetal structures.
This is a CORE course.

AMT 112. AIRFRAME SYSTEMS I. 5 hrs. This course introduces aircraft electrical, communication, and navigation systems and components. Emphasis is placed on inspecting, repairing,installing, adjusting, and troubleshooting aircraft alternating and direct current electricalsystems. Upon completion, students should know the operation and theory of generators, alternators, and starters; be able to fabricate wiring; and inspect, troubleshoot, and repair lighting, communication, and navigation systems.
This is a CORE course.

AMT 113. AIRFRAME SYSTEMS II. 5 hrs. This course introduces aircraft inclement weather control, fire protection and fuel systems as well as cabin environmental control, and instrumentation. Emphasis is placed on theory and skills necessary to inspect, service, maintain and troubleshoot. Upon completion, students should be able to inspect, repair,troubleshoot and understand operating principles of ice and rain removal, fire protection,cabin environmental, instruments and fuel systems.
This is a CORE course.

AMT 114. AIRFRAME SYSTEMS III. 5 hrs. This course introduces the theory of operation of various hydraulic and pneumatic components and systems, landing gear systems, and various position and warning systems. Emphasis is on testing, inspecting, and troubleshooting,and servicing hydraulic and pneumatic systems components, wheel and brake systems,and position and warning systems. Upon completion, students should be able to inspect, troubleshoot, and repair hydraulic and pneumatic power systems, aircraft wheels and tires, aircraft landing gear systems, anti-skid and electrical braking systems, and position and warning systems.
This is a CORE course.

AMT 115. AIRFRAME SYSTEMS IV. 5 hrs. This course introduces aircraft structural assembly and rigging, helicopters, and required inspections. Emphasis is placed on skills required to inspect, service, maintain, and troubleshoot airframes, airframe systems, and components, and assemble and rig aircraft structures. Upon completion, students should be able to inspect, repair, troubleshoot, assemble and rig aircraft structures and determine the condition of airframes, airframe systems, and components.
This is a CORE course.

Powerplant

AMP 220 RECIPROCATING ENGINE THEORY AND SYSTEMS. 5 hrs. This course focuses on the inspection, troubleshooting, and repair of reciprocating engine systems. Emphasis is on inspection, troubleshooting, and repair of ignition systems, fuel and induction systems, lubrication systems, and cooling and exhaust systems. Upon completion, students should be able to inspect, service, troubleshoot, and repair ignition, lubrication, fuel, induction, and cooling and exhaust systems.
This is a CORE course

AMP 222. RECIPROCATING ENGINE INSPECTION AND PROPELLERS. 5 hrs. This course is a study of engine instruments, electrical systems, and ignition systems, as well as a study of aircraft powerplant inspections. Emphasis is placed on the theory of operation of these systems, analysis of system performance and faults, interpretations of instrument indications, and the performance of powerplant conformity and airworthiness inspections. Upon completion, students should be able to read and interpret instrument readings, analyze faults in instruments and electrical and ignition systems, and perform conformity and airworthiness inspections of reciprocating engines.
This is a CORE course.

AMP 223. RECIPROCATING ENGINE OVERHAUL. 5 hrs. This course is a study of theory, construction, operation, and timing mechanisms associated with aircraft reciprocating powerplants; overhaul to include disassembly, cleaning, measuring, inspecting, reassembly and troubleshooting in accordance with appropriate FAA and manufacturers' regulations and practices. Emphasis is placed on overhauling a reciprocating engine. Upon completion, students should be able to overhaul a reciprocating engine.
This is a CORE course.

AMP 221. TURBINE ENGINE THEORY AND SYSTEMS. 5 hrs. This course introduces the turbine engine. Emphasis is placed on turbine engine development, application, theory, components, materials and construction, and operating and power extraction principles. Upon completion, studentsshould be able to explain turbine engine theory and operating principles, describe procedures for 100-hour and Borescope inspections.
This is a CORE course

AMP 224. TURBINE ENGINE INSPECTION AND OVERHAUL. 5 hrs. This course provides a study of turbine engine systems. Emphasis is placed on starter, ignition, anti-ice, fire detection, and fire extinguishingsystems. Upon completion, students should be able to troubleshoot, and repair turbine engine systems; remove and install engines in test cell and airframes; explain engine analysis and troubleshooting techniques; describe correct procedures for rigging and running a turbine engine, and perform a hot section inspection by disassembling and reassembling a turbine engine.
This is a CORE course.