



ADDENDUM

This addendum revises MIAT College of Technology
Catalog, Volume 11 dated March 4, 2015
Effective September 1, 2015

Degree Program of Study

Aviation Maintenance Technology-AAS

This program has been granted an exemption under Texas Education Code, Section 132.002(a)(8) and, therefore, is not approved or regulated by the Texas Workforce Commission. The program is regulated by the Federal Aviation Administration

The Aviation Maintenance Technology Program is a combination of classroom and hands-on instruction and outside work/homework. Upon completion of this FAA (Federal Aviation Administration) certificated program, graduates are eligible to apply and test for the Airframe and Powerplant FAA Certification that is nationally recognized. Upon certification, graduates also possess industry-recognized certificates and are prepared to enter various career areas of the aviation industry at an entry level. Career options include, but are not limited to, **Commercial Airlines, Corporate Aviation, Helicopters, Unmanned Aircraft Systems, General Aviation, Manufacturing, Repair and Overhaul and Avionics.** A sample of entry-level careers include: Airframe Technician, Powerplant Technician, Aircraft Restoration, Jet Engine Mechanic, Avionics Technician, Avionics Installer, Engine Manufacturing, Structures Technician, Sheetmetal Assemble and Riveter. There will be some limitations for career options without the FAA Airframe and Powerplant Certification. Graduates can also secure entry-level positions in other technical areas such as: **Wind Energy** (Wind Technician), **Manufacturing Production** (Electrical, Hydraulics/Pneumatics Technician, and Sheetmetal/Composite Technician), **Engine and Other Machine Assemblers** (Engine Assembler, Engine Builder, Fuel Injection Technician) and **Electrical/Electronics** (Control Technician, Instrument Repair Technician, Electronics Technician, Service Technician). Additionally, the general education courses expand and enhance non-technical skills important to the career growth and development of graduates of this program.

Aviation Maintenance Technology Program
Associate in Applied Science (AAS)
2340 Clock Hours
135 Quarter Credit Hours
Day or Afternoon Program
24 Months

AIR SCIENCE SECTION					
Course Number	Course Name	Theory Hours	Lab Hours	Clock Hours	Credit Hours
*AS101-3H	History	24	18	42	2.5
*AS102-3H	Math and Drawings	18	30	48	2.5
*AS103-3H	NDT and Physics	24	36	60	3.0
*AS104-3H	Weight and Balance, Safety and Ground Operations	25	35	60	3.0
*AS105-3H	Fluid Lines, Materials, Processes and FAR's	27	63	90	4.5
*AS106-3H	Basic Electricity I	24	18	42	2.5
*AS107-3H	Basic Electricity II	30	24	54	3.0
*AS108-3H	Basic Electricity III	30	24	54	3.0

AIRFRAME SECTION					
Course Number	Course Name	Theory Hours	Lab Hours	Clock Hours	Credit Hours
*AF201-3H	Basic Sheetmetal and Welding I	24	30	54	3.0
*AF202-3H	Basic Sheetmetal and Welding II	12	42	54	2.5
*AF203-3H	Basic Sheetmetal and Welding III	12	30	42	2.0
*AF204-3H	Advanced Sheetmetal	12	72	84	4.0
*AF205-3H	Rigging and Fuel Systems	30	36	66	3.5
*AF206-3H	Non-Metallic Structures	15	69	84	4.0
*AF207-3H	Cabin Atmosphere and Aircraft Finishes	24	42	66	3.5
*AF208-3H	Airframe Electrical I	30	24	54	3.0
*AF209-3H	Airframe Electrical II	30	24	54	3.0
*AF210-3H	Position and Warning and Principles of Troubleshooting	6	36	42	2.0
*AF211-3H	Aircraft Instruments and Advanced Troubleshooting	18	54	72	3.5
*AF212-3H	Communication and Navigation Systems	33	45	78	4.0
*AF213-3H	Hydraulics and Pneumatics	24	30	54	3.0
*AF214-3H	Landing Gear Systems	18	30	48	2.5
*AF215-3H	Airframe Inspection	24	24	48	2.5

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POWERPLANT SECTION					
Course Number	Course Name	Theory Hours	Lab Hours	Clock Hours	Credit Hours
*PP201-3H	Reciprocating Engine Operation	30	24	54	3.0
*PP202-3H	Fuel Metering Systems	30	24	54	3.0
*PP203-3H	Induction, Exhaust and Instrument Systems	24	18	42	2.5
*PP204-3H	Powerplant Lubrication Systems and Propellers	24	54	78	4.5
*PP205-3H	Reciprocating Engine Ignition Systems	30	42	72	4.0
*PP206-3H	Reciprocating Engine Inspection and Overhaul I	24	24	48	2.5
*PP207-3H	Reciprocating Engine Inspection and Overhaul II	12	42	54	2.5
*PP208-3H	Fire Protection and Reciprocating Engine Troubleshooting	24	24	48	3.0
*PP209-3H	Turbine Engine Operation and Design I	24	18	42	2.5
*PP210-3H	Turbine Engine Operation and Design II	26	16	42	2.5
*PP211-3H	Turbine Engine Accessories	33	33	66	3.5
*PP212-3H	Turbine Engine Instruments	15	15	30	1.5
*PP213-3H	Turbine Engine Maintenance	12	42	54	3.0
*PP214-3H	Turbine Engine Overhaul and Troubleshooting	12	54	66	3.0

*FAA Approved Curriculum

GENERAL EDUCATION SECTION					
Course Number	Course Name	Theory Hours	Lab Hours	Clock Hours	Credit Hours
GE110-3H	Intermediate Algebra	40	0	40	4.0
GE111-3H	English Composition	40	0	40	4.0
GE112-3H	Public Speaking	40	0	40	4.0
GE113-3H	Introduction to Sociology	40	0	40	4.0
GE114-3H	Environmental Science	40	0	40	4.0
GE115-3H	Organizational Behavior	40	0	40	4.0

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Diploma Programs of Study

Airframe and Powerplant Technician Program

The Airframe and Powerplant (A&P) Technician Program is a combination of classroom and hands-on assignments. Upon successful completion of the A&P program, graduates will have a variety of entry-level career choices in aviation and other technical industries. The program consists of three sections: air science, airframe, and powerplant. A&P Technicians are qualified to work in many areas of aviation such as **Commercial Airlines, Corporate Aviation, Helicopters, Unmanned Aircraft Systems, General Aviation, Manufacturing, Repair and Overhaul, and Avionics**. A sample of entry-level careers include: Aircraft Mechanic/Technician, Aircraft Restoration, Aviation Maintenance, Helicopter Mechanic, Avionics Technician, Avionics Installer, Equipment Service Mechanic, Sheet Metal Assembler and Riveter, and Structures Technician. Additionally, graduates can secure entry-level positions in other technical areas such as: **Wind Energy** (Wind Technicians), **Machine Maintenance** (Assembler, Machinist, Repair), **Maintenance and Repair** (Maintenance Technician or Mechanic, Maintenance Electrician, Building Maintenance, Instrument and Controls Technician), **Engine Technology** (Assemblers, Test Cell Technician, Engine Builder, Field Service Technician, Fuel Injection Technician), **Electrical/Electronics** (Control Technician, Instrument Repair Technician, Electronics Technician, Service Technician) and **Manufacturing Production** (Assembly Line Maintenance, Research and Development Machinist).

Airframe and Powerplant Technician Program
Diploma
2100 Clock Hours
111 Quarter Credit Hours
Day or Afternoon Program
20 Months

AIR SCIENCE SECTION					
Course Number	Course Name	Theory Hours	Lab Hours	Clock Hours	Credit Hours
*AS101-3H	History	24	18	42	2.5
*AS102-3H	Math and Drawings	18	30	48	2.5
*AS103-3H	NDT and Physics	24	36	60	3.0
*AS104-3H	Weight and Balance, Safety and Ground Operations	25	35	60	3.0
*AS105-3H	Fluid Lines, Materials, Processes and FAR's	27	63	90	4.5
*AS106-3H	Basic Electricity I	24	18	42	2.5
*AS107-3H	Basic Electricity II	30	24	54	3.0
*AS108-3H	Basic Electricity III	30	24	54	3.0

AIRFRAME SECTION					
Course Number	Course Name	Theory Hours	Lab Hours	Clock Hours	Credit Hours
*AF201-3H	Basic Sheetmetal and Welding I	24	30	54	3.0
*AF202-3H	Basic Sheetmetal and Welding II	12	42	54	2.5
*AF203-3H	Basic Sheetmetal and Welding III	12	30	42	2.0
*AF204-3H	Advanced Sheetmetal	12	72	84	4.0
*AF205-3H	Rigging and Fuel Systems	30	36	66	3.5
*AF206-3H	Non-Metallic Structures	15	69	84	4.0
*AF207-3H	Cabin Atmosphere and Aircraft Finishes	24	42	66	3.5
*AF208-3H	Airframe Electrical I	30	24	54	3.0
*AF209-3H	Airframe Electrical II	30	24	54	3.0
*AF210-3H	Position and Warning and Principles of Troubleshooting	6	36	42	2.0
*AF211-3H	Aircraft Instruments and Advanced Troubleshooting	18	54	72	3.5
*AF212-3H	Communication and Navigation Systems	33	45	78	4.0
*AF213-3H	Hydraulics and Pneumatics	24	30	54	3.0
*AF214-3H	Landing Gear Systems	18	30	48	2.5
*AF215-3H	Airframe Inspection	24	24	48	2.5

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POWERPLANT SECTION					
Course Number	Course Name	Theory Hours	Lab Hours	Clock Hours	Credit Hours
*PP201-3H	Reciprocating Engine Operation	30	24	54	3.0
*PP202-3H	Fuel Metering Systems	30	24	54	3.0
*PP203-3H	Induction, Exhaust and Instrument Systems	24	18	42	2.5
*PP204-3H	Powerplant Lubrication Systems and Propellers	24	54	78	4.5
*PP205-3H	Reciprocating Engine Ignition Systems	30	42	72	4.0
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*PP207-3H	Reciprocating Engine Inspection and Overhaul II	12	42	54	2.5
*PP208-3H	Fire Protection and Reciprocating Engine Troubleshooting	24	24	48	3.0
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*PP210-3H	Turbine Engine Operation and Design II	26	16	42	2.5
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*PP212-3H	Turbine Engine Instruments	15	15	30	1.5
*PP213-3H	Turbine Engine Maintenance	12	42	54	3.0
*PP214-3H	Turbine Engine Overhaul and Troubleshooting	12	54	66	3.0

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