## AIRFRAME AND POWERPLANT (AFPM)

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Airframe and Powerplant (AFPM)

AFPM F215  MOS Powerplant Theory/Maintenance
2 Credits
Offered As Demand Warrants
Prerequisites: Experience requirements of FAR 65.77; or permission of instructor.
Lecture + Lab + Other: 2 + 0 + 0

AFPM F216  MOS Powerplant System/Components
3 Credits
Offered As Demand Warrants
Prerequisites: Experience requirements of FAR 65.77; or permission of instructor.
Lecture + Lab + Other: 3 + 0 + 0

AFPM F240  Turbine Engines
2 Credits
Offered As Demand Warrants
Prerequisites: Admission to A & P Program; or permission of instructor.
Lecture + Lab + Other: 2 + 0 + 0

AFPM F244  Lubricating Systems
1.5 Credits
Offered As Demand Warrants
Identification and selection of lubricants for aircraft powerplants. Inspection, service, troubleshooting and repair of the lubrication systems and components.
Prerequisites: Admission to A & P Program; or permission of instructor.
Lecture + Lab + Other: 1.5 + 0 + 0

AFPM F245  Ignition Systems
2 Credits
Offered As Demand Warrants
Overhaul, inspection and troubleshooting of reciprocating and gas turbine ignition systems. Repair and bench testing of components. 
Prerequisites: Admission to A & P Program; or permission of instructor.
Lecture + Lab + Other: 2 + 0 + 0

AFPM F246  Fuel Metering Systems
2 Credits
Offered As Demand Warrants
Prerequisites: Admission to the A & P Program; or permission of instructor.
Lecture + Lab + Other: 2 + 0 + 0

AFPM F248  Induction Systems
0.5 Credit
Operation and service of aircraft induction, preheat, anti-ice and supercharger systems. 
Prerequisites: Admission to A&P program; or permission of instructor.
Lecture + Lab + Other: 0.5 + 0 + 0

AFPM F249  Powerplant Cooling Systems
0.5 Credit
Inspection, service and repair of engine cooling systems – both air and liquid cooled installations. 
Prerequisites: Admission to A & P Program; or permission of instructor.
Lecture + Lab + Other: 0.5 + 0 + 0

AFPM F250  Powerplant Exhaust Systems
0.5 Credit
Inspection, service and repair of engine exhaust systems. Includes operations of turbo compounded engines, thrust reversers and noise suppressors. 
Prerequisites: Admission to A & P Program; or permission of instructor.
Lecture + Lab + Other: 0.5 + 0 + 0

AFPM F251  Fuel Systems
1.5 Credits
Offered As Demand Warrants
Inspection, servicing, troubleshooting and repair of aircraft and engine fuel systems and components. 
Prerequisites: Admission to A & P Program; or permission of instructor.
Lecture + Lab + Other: 1.5 + 0 + 0

AFPM F252  Propellers
2 Credits
Offered As Demand Warrants
Identification and nomenclature of aircraft propellers. Operation, control and repair of both reciprocating and turbine engine installations. 
Prerequisites: Admission to A & P Program; or permission of instructor.
Lecture + Lab + Other: 2 + 0 + 0

AFPM F253  Transport Category Aircraft
1 Credit
Offered As Demand Warrants
Introduction to transport category aircraft systems and components. 
Prerequisites: Admission to A & P Program; or permission of instructor.
Lecture + Lab + Other: 1 + 0 + 0

AFPM F254  Aircraft Propulsion Systems
2 Credits
Offered As Demand Warrants
Identifying and nomenclature of aircraft propellers. Operation, control and repair of both reciprocating and turbine engine installations. 
Prerequisites: Admission to A & P Program; or permission of instructor.
Lecture + Lab + Other: 2 + 0 + 0

AFPM F255  Airframe and Powerplant (AFPM)

Admission to A & P Program; or permission of instructor.
AFPM F254  Ice and Rain Control Systems
0.5 Credit
Offered As Demand Warrants
Inspection, operation and troubleshooting of de-ice and anti-ice systems.
Prerequisites: Admission to A&P Program; or permission of instructor.
Lecture + Lab + Other: 0.5 + 0 + 0

AFPM F255  Fire Protection Systems
0.5 Credit
Offered As Demand Warrants
Inspection, servicing, troubleshooting and repair of aircraft and engine
fire detection and extinguishing systems.
Prerequisites: Admission to A & P Program; or permission of instructor.
Lecture + Lab + Other: 0.5 + 0 + 0

AFPM F256  Communications and Navigation Systems
0.5 Credit
Offered As Demand Warrants
Operation of aircraft avionics, autopilots and antennas, including
inspection and installation.
Prerequisites: Admission to A&P program; or permission of instructor.
Lecture + Lab + Other: 0.5 + 0 + 0

AFPM F257  Instrument Systems
0.5 Credit
Offered As Demand Warrants
Inspection, troubleshooting, removal and replacement of aircraft and
engine instruments and indicating systems.
Prerequisites: Admission to A & P Program; or permission of instructor.
Lecture + Lab + Other: 0.5 + 0 + 0

AFPM F258  Cabin Atmosphere Control Systems
1 Credit
Offered As Demand Warrants
Aircraft pressurization, air conditioning, heating and oxygen systems.
Operation, inspection, troubleshooting, service and repair.
Prerequisites: Admission to A&P program; or permission of instructor.
Lecture + Lab + Other: 1.0 + 0 + 0

AFPM F259  Hydraulic and Pneumatic Systems
1.5 Credits
Offered As Demand Warrants
Operation of hydraulic and pneumatic systems and uses in aircraft.
Identification of hydraulic fluids, seals, hydraulic and pneumatic control
devices, inspection and servicing and troubleshooting.
Prerequisites: Admission to A&P program; or permission of instructor.
Lecture + Lab + Other: 1.5 + 0 + 0

AFPM F260  Aircraft Landing Gear Systems
1.5 Credits
Offered As Demand Warrants
Simple and complex landing gear systems. Operation, service and repairst of
mechanical and hydraulic retraction mechanisms. Wheel, tire and
brake service. Aircraft speed and configuration warning systems, electric
brake controls, anti-skid systems, landing gear position and warning
systems.
Prerequisites: Admission to A & P Program; or permission of instructor.
Lecture + Lab + Other: 1.5 + 0 + 0

AFPM F261  NonMetallic Structures
1 Credit
Offered As Demand Warrants
Inspection, service and repair of wood structures. Preliminary and
secondary repair of interior and service of plastic, honeycomb, bonded,
and composite and laminated structures.
Prerequisites: Admission to A & P Program; or permission of instructor.
Lecture + Lab + Other: 1.0 + 0 + 0

AFPM F262  Aircraft Coverings
1 Credit
Offered As Demand Warrants
Selection, application, inspection and testing of fabric and fiberglass
coverings and methods of repair.
Prerequisites: Admissions to A & P Program; or permission of instructor.
Lecture + Lab + Other: 1.0 + 0 + 0

AFPM F263  Aircraft Finishes
0.5 Credit
Offered As Demand Warrants
Aircraft sheet metal fabrication, inspection and repair, including rivets
and fasteners.
Prerequisites: Admission to A & P Program; or permission of instructor.
Lecture + Lab + Other: 0.5 + 0 + 0

AFPM F264  Sheet Metal Structures
3 Credits
Offered As Demand Warrants
Aircraft sheet metal fabrication, inspection and repair, including rivets
and fasteners.
Prerequisites: Admission to A & P Program; or permission of instructor.
Lecture + Lab + Other: 3.0 + 0 + 0

AFPM F265  Aircraft Welding
1.5 Credits
Offered As Demand Warrants
Contemporary welding methods on aircraft structures. Oxyacetylene,
arc, inert gas and brazing techniques. Inspection of welded structure and
safety procedures.
Lecture + Lab + Other: 1.5 + 0 + 0

AFPM F266  Assembly and Rigging
1.5 Credits
Offered As Demand Warrants
Aeroelastic theory and function of aircraft control surfaces. Fabrication
and installation of control devices for fixed and rotary wing aircraft;
jacking and control surface balance.
Prerequisites: Admission to A & P Program; or permission of instructor.
Lecture + Lab + Other: 1.5 + 0 + 0

AFPM F267  Airframe Inspections
0.5 Credit
Offered As Demand Warrants
Inspection and return of aircraft to service. Procedural and legal aspects
of 100 hour, annual and periodic inspections.
Prerequisites: Admission to A & P Program; or permission of instructor.
Lecture + Lab + Other: 0.5 + 0 + 0

AFPM F270  Airframe Testing
0.5 Credit
Offered As Demand Warrants
Preparation for the Federal Aviation Administration written, oral and
practical exams for the powerplant mechanics' license.
Prerequisites: Admission to A & P Program; or permission of instructor.
Lecture + Lab + Other: 0.5 + 0 + 0
AFPM F271  Powerplant Inspections
0.5 Credit
Offered As Demand Warrants
Methodology and record keeping for inspection of aircraft reciprocating and gas turbine engines.
Prerequisites: Admission to A & P Program; or permission of instructor.
Lecture + Lab + Other: 0.5 + 0 + 0

AFPM F272  Powerplant Testing
0.5 Credit
Offered As Demand Warrants
Preparation for the Federal Aviation Administration written, oral and practical exams for the powerplant mechanics' license.
Prerequisites: Admission to A & P Program; or permission of instructor.
Lecture + Lab + Other: 0.5 + 0 + 0

AFPM F325  Inspection Authorization Preparation
2 Credits
Offered As Demand Warrants
Technical background training for the working airframe and powerplant mechanic in selecting, reviewing and utilizing the appropriate federal regulatory and advisory information as well as the manufacturer's maintenance information to inspect and return to service aircraft, engines, propellers, appliances and related parts in accordance with FAR Part 65.95. Final exam is the FAA Inspection Authorization exam administered by an FAA airworthiness inspector.
Prerequisites: FAA A & P Certificate, meet additional requirements of FAR 65.91.
Lecture + Lab + Other: 1 + 2 + 0