



West Virginia State Community and Technical College



West Virginia State Community and Technical College is regionally accredited with the North Central Association and is a Servicemembers Opportunity College.

Airframe and Powerplant

CATALOG DESCRIPTION:

In this 60 hour course students will be given an in-depth treatment of aircraft maintenance subjects that are necessary to achieve the knowledge requirements of Federal Aviation Administration 14 CFR 65.75.

COURSE OBJECTIVE:

To provide students engaged in aircraft maintenance a thorough knowledge of aircraft systems, maintenance procedures and FAA rules and regulations.

PREREQUISITES:

Students should meet the following experience requirements

- At least 18 months of practical experience with the procedures, practices, materials, tools, machine tools, and equipment generally used in constructing, maintaining, or altering airframes, or powerplants; or
- At least 30 months of practical experience concurrently performing the duties appropriate to both the airframe and powerplant ratings.

COURSE LEARNING OUTCOMES:

Upon completion of the course the students should understand:

- Basic Electricity
- Aircraft Drawings
- Weight and Balance
- Fluid Lines and Fittings
- Ground Operation and Servicing
- Cleaning and Corrosion Control
- Mathematics
- Maintenance Forms and Records
- Basic Physics
- Maintenance Publications
- Mechanic Privileges and Limitations
- Wood Structures
- Aircraft Covering
- Aircraft Finishes
- Sheet Metal & Non-Metallic Structures
- Welding
- Assembly and Rigging
- Airframe Inspection
- Aircraft Landing Gear Systems
- Hydraulic and Pneumatic Power Systems
- Cabin Atmosphere Control Systems
- Aircraft Instrument Systems
- Communication and Navigation Systems
- Aircraft Fuel Systems
- Aircraft Electrical Systems
- Position and Warning Systems
- Ice and Rain Control Systems
- Fire Protection Systems
- Reciprocating Engines
- Turbine Engines
- Engine Inspection
- Engine Instrument Systems
- Engine Lubrication Systems
- Engine Fire Protection Systems
- Engine Electrical Systems
- Lubrication Systems
- Ignition and Starting Systems
- Fuel Metering Systems
- Engine Fuel Systems
- Induction and Engine Airflow Systems
- Engine Cooling Systems
- Engine Exhaust and Reverser Systems
- Propellers
- Auxiliary Power Units