

Master Syllabus

AVT 1128 - Powerplant Safety Systems

Division: Science, Mathematics and Engineering

Department: Aviation Technology

Credit Hour Total: 3.0

Lecture Hrs: 2.0 **Lab Hrs:** 2.0

Date Revised: October 2012

Course Description:

Troubleshooting of electrical wiring and connections on instruments, legal repairs allowed on instruments by Airframe and Powerplant (A&P) mechanics, different types of fire protection systems, different extinguishing agents used, Auxiliary Power Unit (APU) use, inspection, operation, removal, and replacement of APUs requiring servicing and troubleshooting and unducted fan engines. Two classroom, two lab hours per week.

General Education Outcomes:

- ▣ Oral Communication
- ▣ Written Communication
- ▣ Critical Thinking/Problem Solving
- ▣ Values/Citizenship/Community
- ▣ Computer Literacy
- ▣ Information Literacy

Course Outcomes:

Engine fire indicating systems

Demonstrate knowledge of the different types of fire indicating systems used on aircraft and their inspection, maintenance, and repair.

Assessment Method: Locally developed exams

Performance Criteria: 70% or higher correct responses on exam

Fire protection requirements

Demonstrate knowledge of the different requirements for different category aircraft fire suppression systems and types of extinguishing agents.

Assessment Method: Locally developed exams

Performance Criteria: 70% or higher correct responses on exam

Engine temperature and pressure indicating systems

Demonstrate knowledge of engine indicating instruments, wiring, and data systems, and their inspection and repair.

Assessment Method: Locally developed exams

Performance Criteria: 70% or higher correct responses on exam

Outline:

Instrument electrical connections
Mechanical fluid flow rate indicating systems
Engine temperature and pressure indicating systems
Engine fire indicating systems
Fire protection system types
Fire protection requirements
Auxiliary power units
Unducted fan engines