

Master Syllabus

AVT 2219 - Turbine Engines

Division: Science, Mathematics and Engineering

Department: Aviation Technology

Credit Hour Total: 4.0

Lecture Hrs: 2.0 **Lab Hrs:** 6.0

Date Revised: October 2012

Course Description:

Physics of gas turbine engines, air and non-air breathing engine types, production of thrust, engine sections, types of accessories, engine operations, maintenance requirements, inspections, repair of electrical connections, troubleshooting electrical and pneumatic systems and testing/trimming of engines. Two classroom, six lab hours per week.

General Education Outcomes:

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

Course Outcomes:

Turbine engine components

Demonstrate a knowledge of turbine engine components, operation of turbine engine types, inspection, removal, repair, and installation of engine and components.

Assessment Method: Locally developed exams

Performance Criteria: 70% or higher correct responses on exam

Starting and operation

Demonstrate a knowledge of turbine engine starting, operation, emergency procedures, and legal requirements for operation on ramp areas, taxiways, and run pads.

Assessment Method: Locally developed exams

Performance Criteria: 70% or higher correct responses on exam

Removal and installation

Demonstrate a knowledge of preparation for removal and installation of turbine engines, and proper documentation in engine change packages.

Assessment Method: Locally developed exams

Performance Criteria: 70% or higher correct responses on exam

Outline:

Turbine engine components
Accessory gearbox removal and installation
Turbine engine removal and installation
Turbine engine starting and operation
Turbine engine electrical systems