

## 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

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

#### 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