Sinclair Community College
444 E. Third St.
Dayton, OH 45402

Master Syllabus

AVT 2139 - Induction/Exhaust/Cooling

Division: Science, Mathematics and Engineering

Department: Aviation Technology

Credit Hour Total: 2.0 **Lecture Hrs:** 1.0 **Lab Hrs:** 3.0

Date Revised: October 2012

Course Description:

Powerplant ice protection, reciprocating engine induction system, superchargers, turbochargers, heat exchangers, turbine engine inlet designs, exhaust system inspection, repair, removal, and installation, and thrust reversers. One classroom, three 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 ice and rain control
Demonstrate knowledge of the inspection, repair, and servicing of turbine engine ice and rain system components and controls in both fixed wing and rotary wing aircraft.

Assessment Method: Locally developed exams
Performance Criteria: 70% or higher correct responses on exams

Reciprocating engine induction and exhaust manifolds
Demonstrate knowledge of techniques to remove, inspect, service, replace, or reinstall engine induction components and exhaust manifolds.

Assessment Method: Locally developed exams
Performance Criteria: 70% or higher correct responses on exams

Engine exhaust system removal, inspection, repair, and installation
Demonstrate knowledge of techniques to remove, inspect, service, replace, or reinstall engine exhaust systems and components.

Assessment Method: Locally developed exams
Performance Criteria: 70% or higher correct responses on exams

Turbine engine thrust reverser systems
Demonstrate knowledge of turbine engine thrust reverser systems, proper operation, removal, inspection, repair, and installation.

Assessment Method: Locally developed exams
Performance Criteria: 70% or higher correct responses on exams

Outline:

Turbine engine ice and rain protection
Reciprocating engine induction and exhaust manifolds
Turbine thrust reverser systems
Engine baffling inspection, removal for repair, and installation
Engine exhaust system removal, inspection, repair, and installation