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

Master Syllabus

AVT 2129 - Propellers

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:

Removal, inspection, repair, dressing and installation of propellers. Propeller pitch, angle of attack and forces. Metal, wood and composite propellers. Variable pitch propellers including constant speed, reversing, feathering and ground adjustable propellers. Propeller systems including governors, ice control and auxiliary systems. Propeller storage and return to service. Propeller certificate data. 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:

Service, inspection, and repair
Demonstrate the ability to inspect, service, and repair minor dents and abrasions on propeller blades. Evaluate the damage to determine if it is beyond repair limits or will require repair station authority. Demonstrate the ability to return the propeller blade to serviceable condition.

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

Removal and installation
Demonstrate the knowledge to remove, inspect, repair as necessary, and install a propeller using Federal Aviation Adminstration regulations and manufacturer-approved procedures.

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

Variable pitch propellers
Demonstrate knowledge of variable pitch propellers including constant speed, reversing and feathering propellers. Demonstrate inspection and repair techniques of variable pitch propellers.

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

Operational checks
Demonstrate the ability to statically and dynamically balance a propeller and perform operational checks. Analyze an out-of-balance condition to determine the procedures to correct the condition; understand the results of operating in an out-of-balance condition.

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

Outline:

Propeller removal and installation
Propeller service, inspection, and repair
Propeller operational checks
Propeller certificate data
Propeller control systems
Propeller synchronizing, feathering, and constant-speed systems
Propeller ice control systems