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

Master Syllabus

AVT 1218 - Utility Systems

Division: Science, Mathematics and Engineering

Department: Aviation Technology

Credit Hour Total: 6.0 **Lecture Hrs:** 3.0 **Lab Hrs:** 9.0

Date Revised: October 2012

Course Description:

Hydraulic and pneumatic aircraft systems, introduction to landing gear systems, development of repair and inspection skills, critical thinking and development of analysis used in troubleshooting and repair of hydraulic and pneumatic systems and landing gear. Three classroom, nine 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:

Hydraulic systems and components
Demonstrate knowledge of hydraulic systems and components to include removal and installation, troubleshooting, types of hydraulic fluids, hazardous materials (hazmat) requirements, crossfeeds, pumps, seals, and fittings.

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

Pneumatic systems and components
Demonstrate knowledge of pneumatic systems and components to include removal, installation, inspection, and repair.

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

Troubleshooting and repair of landing gear
Demonstrate knowledge of landing gear systems and the ability to operate, inspect, repair, adjust, and service.

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

Outline:

Hydraulic systems and components
Pneumatic systems and components
Seals, O-rings, rings, and fluid lines
Troubleshooting and repair of hydraulic components
Troubleshooting and repair of landing gear