

## Master Syllabus

### AVT 2132 - Airframe Electrical Systems

**Division:** Science, Mathematics and Engineering

**Department:** Aviation Technology

**Credit Hour Total:** 4.0

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

**Date Revised:** October 2013

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#### Course Description:

Electrical distribution, controls, switches, transformers and solid-state devices. Use of electrical measuring devices in troubleshooting and testing circuits. Repair of wiring and terminal ends. Use of electrical schematics and wiring diagrams to troubleshoot systems and trace electrical signals. 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:

##### Electrical measuring devices

Demonstrate the ability to test and troubleshoot electrical circuits by using electrical measuring devices. Determine faults on an electrical mockup or aircraft.

**Assessment Method:** Locally developed exams

**Performance Criteria:**

70% or higher on exams

##### Alternating and direct current electrical circuits

Demonstrate the ability to operate, test, and troubleshoot direct and alternating current circuits utilizing electrical wiring diagrams and electrical wiring schematics.

**Assessment Method:** Locally developed exams

**Performance Criteria:**

70% or higher on exams

##### Electrical schematics

Demonstrate the ability to read, interpret, and troubleshoot direct and alternating current circuits utilizing electrical wiring diagrams and electrical wiring schematics.

**Assessment Method:** Locally developed exams

**Performance Criteria:**

70% or higher on exams

#### Outline:

Alternating and direct current electrical circuits and components

Electrical measuring devices

Electrical wiring diagrams

Troubleshooting and repairing wiring

Electrical schematics