

CENTER FOR INNOVATIVE TECHNOLOGIES  
MASTER COURSE DOCUMENT

### AMT 110 Aircraft Electricity

**Course Description:** A course that uses FAA-approved instruction for foundation concepts and techniques in aviation maintenance. Topics include: basic concepts of math, physics, and electricity; aircraft drawings; and maintenance forms and records.

**Prerequisites(s):** No prerequisites

**Corequisite(s):** MAT 122

|  |                     |  |
|--|---------------------|--|
| Lecture Hours: 3   | Lab Hours: 3        | Credit Hours: 4                                      |
| Lab Fee: 150   | Supplemental Fee: 0 | Purpose:   |
| <input type="checkbox"/> Transfer Assurance Guide Course (TAG) |                     | <input type="checkbox"/> Transfer Module Course (TM) |
| Course Format: Lec/Lab   |                     | Grading: A/B/C/D/F/I                                 |
| Delivery Method: Classroom                                     |                     |  |
| Semesters Offered: Fall - Days, Fall - Evenings                |                     |  |

#### Course Primary Text:

|   |              |
|---|--------------|
| Title: Aircraft Electricity and Electronics | Edition: 5th |
| Author(s): Eismin                           |              |
| Publisher: Glencoe                          |              |

#### Supplemental Materials:

|  |
|--|
| Advisory Circular (43.13-1B), U.S. Department of Transportation, Federal Aviation Administration |
| FAA 8083-30A, U.S. Department of Transportation, Federal Aviation Administration                 |

#### Course Outcomes:

|    |   |
|----|---|
| 1  | Students will learn to calculate the electrical power required to operate an electric motor.  |
| 2  | Students will learn to draw a diagram showing use of a galvanometer in a circuit.   |
| 3  | Students will install a voltmeter in an electrical circuit.   |
| 4  | Students will read and record voltage and current. Students will read and record voltage values.  |
| 5  | Students will use VOM in the voltage mode, ohmmeter mode, and current mode.   |
| 6  | Students will select DC or AC voltage ranges.   |
| 7  | Students will connect test leads for reading voltage.   |
| 8  | Students will read and record current values properly.  |
| 9  | Students will solve ten problems by calculating the power having values of voltage, current and resistance given. Specify the unit of measurement with each answer. |
| 10 | Students will demonstrate the operation of an aircraft relay and the operation of a solenoid.   |

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**Course Topics:**

Course booklet with FAA approved practical projects and course lectures is located in the AMT Offices at the Cincinnati State West Campus.

**Methods of Evaluation/Assessment**

|                           |
|---------------------------|
| Tests                     |
| Quizzes                   |
| Lab Projects              |
| Lab & Class Participation |
| Attendance                |

Course Keeper: Gary Goodpaster

Date Completed: April 01, 2019