

Prepared by the Department of Natural Sciences & Applied Technology

Date of Departmental Approval: March 18, 2018

Date Approved by Curriculum and Programs: April 4, 2018

Effective: Fall 2018

1. Course Number: AMT204

Course Title: Aviation Maintenance Technology (AMT): Powerplant Module 2

2. Description: AMT Powerplant Module 2 for the Federal Aviation Administration (FAA) is required by Title 14 of the Code of Federal Regulations (14 CFR) Advisory Circular Part 147-3B. AMT Powerplant Module 2 introduces students to the applications of engine fire protection systems, engine electrical systems, engine cooling systems, ignition and starting systems, auxiliary power units, fuel metering systems, propellers, engine fuel systems, and engine inspections.

3. Student Learning Outcomes:

Upon successful completion of this course, students are able to do the following.

- Inspect, check, service, troubleshoot, and repair engine fire detection and extinguishing systems.
- Install, check, and service engine electrical systems.
- Inspect, check, troubleshoot, service, and repair engine cooling systems.
- Inspect, service, troubleshoot, and repair turbine engine electrical starting systems.
- Inspect, check, service, troubleshoot, and repair reciprocating and turbine engine fuel metering systems.
- Inspect, check, service, and repair fixed-pitch, constant-speed, and feathering propellers, and propeller governing systems. Install, troubleshoot, and remove propellers. Repair aluminum alloy propeller blades.
- Inspect, check, service, troubleshoot, and repair engine fuel systems.
- Perform power plant conformity and air worthiness inspections.

4. Credits: 9 credits

5. Satisfies General Education Requirement: No

6. Prerequisite: Grade of C or higher in AMT101 (AMT: General Module I) and AMT102 (AMT: General Module II)

7. Semesters Offered: Varies

8. Suggested General Guidelines for Evaluation: The course grade will be based on class work, laboratory, quizzes, tests, projects, and a final exam. Specific course grading procedures and make-up policies are detailed in a Cape Cod Community College Aviation Manual and an instructor course outline.

9. General Topical Outline:

- Engine Fire Protection Systems
- Engine Electrical Systems
- Engine Cooling Systems
- Ignition and Starting Systems
- Auxiliary Power Units
- Fuel Metering Systems
- Propellers
- Engine Fuel Systems
- Engine Inspections