

Prepared by the Department of Natural Sciences & Applied Technology

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Effective: Fall 2018

1. Course Number: AMT203

Course Title: Aviation Maintenance Technology (AMT): Powerplant Module 1

2. Description: AMT Powerplant Module 1 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 1 introduces students to the applications of reciprocating engines, turbine engines, induction and airflow systems, engine exhaust and reverser systems, diesel engines, engine instrument systems, unducted fans, and lubrication systems.

3. Student Learning Outcomes:

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

- Inspect, check, service, and repair reciprocating engines and engine installations. Install, troubleshoot, and remove reciprocating engines.
- Inspect, check, service, and repair turbine engines and turbine engine installations. Install, troubleshoot, and remove turbine engines.
- Inspect, check, service, and repair carburetor air intake and induction manifolds.
- Inspect, check, troubleshoot, service, and repair engine exhaust systems.
- Inspect, check, service, troubleshoot, and repair electrical and mechanical engine temperature, pressure, and RPM indicating systems.
- Inspect, check, service, troubleshoot, and repair engine lubrication systems.

4. Credits: 9 credits

5. Satisfies General Education Requirement: No

6. Prerequisite: Grade of C or higher in AMT101 (AMT: General Module 1) 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:

- Reciprocating Engines
- Turbine Engines
- Induction and Airflow Systems
- Engine Exhaust and Reverser Systems
- Diesel Engines
- Engine Instrument Systems
- Unducted Fans
- Lubrication Systems

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