Miami Dade College

Course Description

AMT0219 | Aircraft Hydraulics & Aviation Mathematics | 0.63 credits

In this course, the student will learn about aircraft hydraulic and pneumatic systems and advanced aviation mathematics. Prerequisites: AMT 0044 and AMT 0045.

Course Competencies:

Competency 1: The student will demonstrate knowledge of aircraft hydraulic and pneumatic systems by:

1. Identifying elements of hydraulic and pneumatic systems
2. Showing various forms of installations
3. Identifying and creating various types of hydraulic and pneumatic lines
4. Performing an actual inspection of a hydraulic landing gear system

Competency 2: The student will demonstrate knowledge of advanced aviation mathematics by:

1. Examining the role of physics & geometry in aviation
2. Identifying the application of algebraic equations, rules & order of operation in aviation settings
3. Identifying the application of geometry, including computations of area, volumes, and surface areas, as well as trigonometry as applied in aviation tasks
4. Demonstrating the emerging role of measurement systems and binary numbers in aviation applications, especially avionics

Learning Outcomes

- Communicate effectively using listening, speaking, reading, and writing skills
- Use quantitative analytical skills to evaluate and process numerical data
- Solve problems using critical and creative thinking and scientific reasoning
- Formulate strategies to locate, evaluate, and apply information