Miami Dade College

Course Description

AMT0046 | Aircraft Materials, Hardware & Processes | 2.26 credits

In this course, the student will learn about chemical processes, hazards of aviation solvents, lubricants, effects of corrosion on metals and aluminum, and measuring and sheet metal layout. Prerequisites: AMT0044 and AMT0045.

Course Competencies:

Competency 1: The student will demonstrate knowledge of aviation hand tools and safe handling in the field by:

1. Identifying proper tools to complete the task
2. Conducting tool inspection for calibration
3. Demonstrating basic tool safety
4. Identifying the proper personal protective equipment
5. Demonstrating the proper storage and handling of materials
6. Identifying the proper disposal of materials

Competency 2: The student will demonstrate an appropriate understanding of aviation science by:

1. Identifying unique metals used in the aviation industry
2. Identifying hazards in aviation supplies
3. Identifying health-related problems due to work-related chemicals
4. Determining material classification and composition

Competency 3: The student will demonstrate an appropriate understanding of basic aviation corrosion control:

1. Distinguishing types of corrosion and causes
2. Determining the effects of corrosion and impact on aviation
3. Identifying types of contamination

Competency 4: The student will identify causes of delamination and identify dissimilar materials corrosion by:

1. Identifying causes of dissimilar metal corrosion
2. Determining corrosion preventative methods
3. Determining metal for working surface and preparation
4. Evaluating the project and selecting appropriate tools
5. Preparing edge distance and spacing on metal

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