

## AMT 0046 Aircraft Materials, Hardware & Processes

Course Description: 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: AMT 0044 and AMT 0045. (68 Clock Hours)

Course Competency	Learning Outcomes
<p><b>Competency 1:</b> The student will demonstrate knowledge of aviation hand tools and safe handling in the field by:</p>	<ul style="list-style-type: none"> <li>• Communication</li> <li>• Numbers / Data</li> <li>• Critical thinking</li> <li>• Information Literacy</li> </ul>
<ol style="list-style-type: none"> <li>1. Identifying proper tools to complete the task.</li> <li>2. Conducting tool inspection for calibration.</li> <li>3. Demonstrating basic tool safety.</li> <li>4. Identifying the proper personal protective equipment.</li> <li>5. Demonstrating the proper storage and handling of materials. 6. Identifying the proper disposal of materials.</li> </ol>	
<p><b>Competency 2:</b> The student will demonstrate appropriate understanding of aviation science by:</p>	<ul style="list-style-type: none"> <li>• Communication</li> <li>• Numbers / Data</li> <li>• Critical thinking</li> <li>• Information Literacy</li> </ul>
<ol style="list-style-type: none"> <li>1. Identifying unique metals used in the aviation industry.</li> <li>2. Identifying hazards in aviation supplies.</li> <li>3. Identifying health related problems due to work related chemicals.</li> <li>4. Determining material classification and composition.</li> </ol>	
<p><b>Competency 3:</b> The student will demonstrate appropriate understanding of basic aviation corrosion control:</p>	<ul style="list-style-type: none"> <li>• Communication</li> <li>• Numbers / Data</li> <li>• Critical thinking</li> <li>• Information Literacy</li> </ul>
<ol style="list-style-type: none"> <li>1. Distinguishing types of corrosion and causes.</li> <li>2. Determining the effects of corrosion and impact on aviation.</li> <li>3. Identifying types of contamination.</li> </ol>	
<p><b>Competency 4:</b> The student will identify causes of delamination and identify dissimilar materials corrosion by:</p>	<ul style="list-style-type: none"> <li>• Communication</li> <li>• Numbers / Data</li> <li>• Critical thinking</li> <li>• Information Literacy</li> </ul>

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| <ol style="list-style-type: none"><li>1. Identifying causes of dissimilar metal corrosion. 2. Determining corrosion preventative methods.</li><li>3. Determining metal for working surface and preparation.</li><li>4. Evaluating project and select appropriate tools. 5. Preparing edge distance and spacing on metal.</li></ol> |  |
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