

Course Competency

AMT 0800 Aviation Maintenance Technician

Course Description

This course will introduce the student to Aviation Maintenance. The student will learn mechanic privileges & limitations, maintenance safety, flight theory physics, tools & equipment, airframe & powerplant with respective systems, maintenance publications, instrumentation, inspections & quality control, human factors and safety management system as related to the aviation maintenance industry. (240 Clock Hours)

Course Competency	Learning Outcomes
<p>Competency 1: The student will demonstrate knowledge and understanding of mechanic privileges and limitations by:</p>	<ol style="list-style-type: none"> 1. Communication 2. Critical thinking 3. Information Literacy
<ol style="list-style-type: none"> 1. a. recognizing aviation maintenance terminology. b. identifying the information in Federal Aviation Regulations (FAR) Part 65 pertaining to eligibility. for Aviation Maintenance Technician (AMT) certification and ratings. (Airframe, Powerplant, IA, Repairman). c. recognizing mechanic privileges within the limitations prescribed by FAR Part 65. d. differentiating careers requiring an AMT certification. 	
<p>Competency 2: The student will demonstrate knowledge and understanding of aviation maintenance safety by:</p>	<ol style="list-style-type: none"> 1. Critical thinking 2. Communication 3. Information Literacy
<ol style="list-style-type: none"> 1. identifying proper personal protective equipment (PPE). 2. recognizing physical dangers and hazards associated with aircraft maintenance. 3. recognizing environmental hazard associated with aircraft maintenance. 	

<p>4. differentiating foreign object debris and foreign object damage.</p>	
<p>Competency 3:The student will demonstrate knowledge and understanding of basic flight theory physics by:</p>	<ol style="list-style-type: none"> 1. Communication 2. Numbers / Data 3. Critical thinking 4. Information Literacy
<ol style="list-style-type: none"> 1. recognizing the principles of simple machines; sound, fluid, and heat dynamics; basic aerodynamics to aircraft structures, and theory of flight. 2. recognizing molecular action as a result of temperature extremes, chemical reaction, and moisture content. 3. recognizing atmosphere pressure measurements. 	
<p>Competency 4:The student will demonstrate knowledge and understanding of aviation maintenance tools and equipment by:</p>	<ol style="list-style-type: none"> 1. Numbers / Data 2. Communication 3. Information Literacy 4. Critical thinking
<ol style="list-style-type: none"> 1. differentiating standard tools and special tools. 2. differentiating standard equipment and test equipment. 	
<p>Competency 5:The student will demonstrate knowledge and understanding of airframe and systems by:</p>	<ol style="list-style-type: none"> 1. Communication 2. Numbers / Data 3. Critical thinking 4. Information Literacy
<ol style="list-style-type: none"> 1. recognizing basic aircraft structure various designs and identifying the stresses on an aircraft fuselage, wing, empennage structures, and the danger of exceeding manufacturer limitations. 2. distinguishing primary, secondary, and auxiliary control surfaces and their 	

<p>operation.</p> <ol style="list-style-type: none"> 3. analyzing the basic requirements for pressurization systems, major structural stresses and the dangers associated with pressurization. 4. examining and analyzing the theory and operation of a standard hydraulic system and their components. 5. examining and analyzing the theory and operation of a standard electrical system and their components. 	
<p>Competency 6:The student will demonstrate knowledge and understanding of powerplant by:</p>	<ol style="list-style-type: none"> 1. Communication 2. Numbers / Data 3. Critical thinking 4. Information Literacy
<ol style="list-style-type: none"> 1. recognizing the basic theory and operation of aircraft reciprocating engines. 2. associate basic theory and operation of various propellers and their components. 3. recognizing the theory and operation of the various engine systems and components, including: fuel systems, ignition systems, turbochargers, lubrication, hydraulic, electrical systems. 4. discussing the basic theory and operation of aircraft turbine engines. recognizing the theory and operation of the various engine systems and components, including: fuel control systems, ignition systems and lubrication systems. 5. recognizing the theory and operation of a hydraulic and electrical system on powerplant component. 	
<p>Competency 7:The student will demonstrate knowledge and understanding of aircraft instruments by:</p>	<ol style="list-style-type: none"> 1. Numbers / Data 2. Critical thinking 3. Information Literacy
<ol style="list-style-type: none"> 1. examining and analyzing the function and type of instruments. 	

<p>2. examining and analyzing the function and types of avionics.</p>	
<p>Competency 8:The student will demonstrate knowledge and understanding of maintenance publications by:</p>	<ol style="list-style-type: none"> 1. Communication 2. Numbers / Data 3. Critical thinking 4. Information Literacy
<ol style="list-style-type: none"> 1. recognizing and utilizing the Air Transport Association (ATA) codes. 2. differentiating technical manuals and publication. 	
<p>Competency 9:The student will demonstrate knowledge and understanding of aircraft inspection and quality control by:</p>	<ol style="list-style-type: none"> 1. Environmental Responsibility 2. Ethical Issues 3. Communication 4. Critical thinking 5. Information Literacy
<ol style="list-style-type: none"> 1. identifying the different types of inspections and inspection programs. 2. comprehending the quality control and the quality assurance process. 	
<p>Competency 10:The student will demonstrate knowledge and understanding of maintenance forms and records by:</p>	<ol style="list-style-type: none"> 1. Information Literacy 2. Communication
<ol style="list-style-type: none"> 1. differentiating the types of forms utilized in the industry (i.e., maintenance forms, records, and inspection reports). 2. recognizing discrepancies and corrective actions entry of work performed on aircraft maintenance documentation. 3. recognizing industry standards for acceptable document entries 	
<p>Competency 11:The student introduction and understanding of Human Factors and Safety Management System by:</p>	<ol style="list-style-type: none"> 1. Communication 2. Critical thinking 3. Ethical Issues

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| <ol style="list-style-type: none">1. discussing of Human Factor principles and applications.2. discussing of Safety Management System and application in aviation maintenance. | |
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