

Course Competency

ATT 2120 Instruments Pilot Theory

Course Description

This 30-hour course introduces basic theories of instrument pilot operations to prepare students for the FAA Instrument Written Exam. Students will acquire aeronautical knowledge required to act as an Instrument rated Pilot. It will prepare the students for the FAA Instrument Written Exam. Private Pilot Certificate required. Prerequisites ASC1210, ATF1100, and ATT1100. Corequisite ATF2200.

Course Competency	Learning Outcomes
<p>Competency 1:The student will demonstrate knowledge and understanding of the subject matter required for an instrument rating as listed in Part 141 of the Federal Aviation Regulations by:</p>	<ol style="list-style-type: none"> 1. Communication 2. Numbers / Data 3. Critical thinking 4. Computer / Technology Usage
<ol style="list-style-type: none"> a. Recalling applicable Federal Aviation Regulations for flight operations conducted under instrument flight rules (IFR). b. Summarizing appropriate information in the Aeronautical Information Manual (AIM). c. Describing the air traffic control system and the procedures for instrument flight operations. d. Explaining IFR navigation and approaches by use of navigation systems. e. Demonstrating the use of IFR en route and instrument approach procedure charts. f. Discussing the procurement and use of aviation weather reports and forecasts, and the elements of forecasting weather trends on the basis of that information and personal observation of weather conditions. g. Breaking down and explaining the safe and efficient operation of aircraft under instrument flight rules and conditions. h. Demonstrating the recognition of critical weather situations and wind shear avoidance. i. Practicing aeronautical decision making (ADM) and judgment. 	

<p>j. Understanding crew resource management, to include crew communication and coordination.</p>	
<p>Competency 2:The student will analyze and interpret charts, tables, publications, regulations and produce reasoned, critical responses to common aeronautical concerns of instrument flight operations by:</p>	<ol style="list-style-type: none"> 1. Communication 2. Numbers / Data 3. Critical thinking 4. Computer / Technology Usage
<ol style="list-style-type: none"> a. Charting and completing an IFR navigational log for a preplanned long-range flight. b. Filling out a standard IFR flight plan form for a preplanned flight. c. Solving various performance calculations for a preplanned flight. d. Interpreting the symbols found in low-altitude instrument charts. e. Describing arrival and departure procedures/ concerns using printed Departure Procedures (DPs). and Standard Terminal Arrival (STARR) charts. f. Identifying procedures/concerns for printed Instrument Approach Procedures (IAPs). 	
<p>Competency 3:The student will demonstrate the ability to act as an instrument rated pilot by:</p>	<ol style="list-style-type: none"> 1. Communication 2. Numbers / Data 3. Critical thinking 4. Computer / Technology Usage
<ol style="list-style-type: none"> a. Discussing how to make a competent, logical “go/no-go” decision for an instrument flight and the factors to be considered. b. Planning and explaining a cross-country flight using real-time weather and conforming to the regulatory requirements for instrument flight rules (IFR). c. Determining whether an alternate airport is required, and, if so, whether the selected alternate airport meets the regulatory requirements. d. Recalling the requirements/procedures for landing from an instrument approach procedure. 	

e. Summarizing procedures to be implemented in case of system and/or equipment malfunctions during Instrument Meteorological Conditions (IMC).	
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