

Course Description

ATT2131 | Flight Instructor Theory | 3.00 credits

Provides the student ground instruction to obtain the necessary aeronautical knowledge, to meet the FAA written standards for the Certified Flight Instructors Certificate. Preparation for the written exam is included in the course content. Prerequisite: ATF2305.

Course Competencies:

Competency 1: The student will demonstrate instructional knowledge required to meet Part 141 “aeronautical knowledge” standards for a Certified Flight Instructor (CFI) by:

1. Breaking down the fundamentals of instructing, including:
 - a. The learning processes
 - b. Elements of effective teaching
 - c. Student evaluation and testing
 - d. Course development
 - e. Lesson planning
 - f. Classroom training techniques
2. Recalling Federal Aviation Regulations that apply to private/commercial pilot privileges, limitations, and flight operations
3. Summarizing the accident reporting requirements of the National Transportation Safety Board
4. Listing applicable subjects of the Aeronautical Information Manual and appropriate FAA advisory circulars
5. Interpreting aeronautical charts for navigation under visual flight rules (VFR), using pilotage, dead reckoning, and navigation systems
6. Displaying radio communication procedures
7. Explaining the recognition of critical weather situations from the ground and in flight, wind shear avoidance, and the procurement and use of aeronautical weather reports and forecasts
8. Introducing the safe and efficient operation of aircraft, including collision avoidance and recognition and avoidance of wake turbulence
9. Teaching the effects of density altitude on takeoff and climb performance. j. Presenting methods used to complete weight and balance computations for training aircraft
10. Explaining the various principles of aerodynamics, powerplants, and aircraft systems. l. Analyzing stall awareness, spin entry, spins, and spin recovery techniques
11. Instilling aeronautical decision-making (ADM) and judgment on pupils
12. Showing preflight action, such as obtaining information on runway lengths at airports of intended use, data on takeoff and landing distances, weather reports and forecasts, and fuel requirements, as well as how to plan for alternatives if the originally intended flight cannot be completed or delays are encountered

Competency 2: The student will demonstrate the ability to perform the duties of a Certified Flight Instructor by:

1. Developing reasoned, concise lesson plans for any subject (listed above)
2. Planning a ground lesson that covers a subject assigned by the instructor
3. Explaining a cross-country flight using real-time weather and conforming to the regulatory requirements for instrument flight rules (IFR)
4. Discussing how to determine whether an alternate airport is required, and, if so, whether the selected alternate airport meets the regulatory requirement
5. Instilling the requirements and procedures for landing from an instrument approach procedure
6. Contributing procedures to be implemented in case of system and/or equipment malfunctions during instrument meteorological conditions (IMC)

Learning Outcomes

- Use quantitative analytical skills to evaluate and process numerical data
- Solve problems using critical and creative thinking and scientific reasoning
- Use computer and emerging technologies effectively