



Course Description

ATT2822 | VFR Tower Operations | 3.00 credits

This course expands the knowledge attained from ATT2820 and is designed to further develop the aviation students' skill in the ATC environment. Emphasis is placed on the duties and responsibilities of operational positions in local, ground, flight data, and coordination. Students will also learn the FAA regulations which govern flights under visual conditions. Optimum use of the Hughes Virtual Tower incorporated into this course. Prerequisite: ATT2820.

Course Competencies:

Competency 1: The student will demonstrate knowledge and understanding of the subject matter relating to Visual Flight Rules (VFR) tower operations in air traffic control (ATC) by:

1. Discussing teamwork in the ATC environment, including coordination, communication, and conflict management, and how they are used in the air traffic control environment
2. Identifying the different types of airports
3. Marking aids and their use
4. Recalling aircraft separation requirements
5. Breaking down airspace classifications
6. Listing the applicable federal aviation regulations
7. Explaining wake turbulence
8. Demonstrating aircraft recognition procedures
9. Analyzing departure procedures (DP) and standard instrument arrivals (SIA)
10. Defining the role of an air traffic controller in an emergency, including tasks, functions, response procedures, and management structure
11. Applying standard ATC communications in VFR tower operations
12. Reading strip marking and stating corresponding procedures for their use
13. Analyzing air traffic control clearances in VFR tower operations

Competency 2: The student will demonstrate the ability to analyze and interpret the following ATC documentation:

1. Identifying and analyzing VFR end route charts, terminal VFR charts, and world aeronautical charts.
2. Informing airport facility directory (AFD)
3. Providing notices to airmen (NOTAMS)
4. Processing pilot reports (PIREPS)
5. Providing strip markings
6. Visualizing airport signage

Competency 3: The student will demonstrate proficiency in ATC VFR communications and operations by:

1. Completing control tower simulation exercises in a simulated ATC environment (simulator) using FAA standards, multiple traffic and weather scenarios will be utilized, including alerts, emergencies, and conflict situations, including runway incursions
2. Issuing clear, concise commands to aircraft in various situations to resolve or prevent conflict
3. Providing a detailed, standard position relief briefing during training exercises
4. Showing reasoned, decisive procedures in emergency/abnormal situations
5. Shaping communications to purpose, audience, and occasion

Learning Outcomes:

- Communicate effectively using listening, speaking, reading, and writing skills
- Use quantitative analytical skills to evaluate and process numerical data
- Use computer and emerging technologies effectively