

AVMT 221

The Air Traffic Control System

3 Credits

Community College of Baltimore County

Common Course Outline

Description

AVMT 221 - The Air Traffic Control System: provides a comprehensive overview of Air Traffic Control (ATC) responsibilities and functions. Topics include the history, development, and structure of the Federal Aviation Administration (FAA), and the National Airspace System (NAS). Air traffic control procedures, integrated navigation systems, terminal and en route control, flight service, flight safety, and weather facilities are reviewed. This course has additional lab fees.

Pre-requisites: AVMT 101 and AVMT 131 or approval of the aviation program director

Overall Course Objectives

Upon completion of this course, students will be able to:

1. describe the major historical events that led to the current air traffic control system in the US;
2. compare the ways in which air traffic information is disseminated;
3. summarize air traffic control communication methods and techniques;
4. identify the key features of weather forecasting, observation, and reporting;
5. explain the duties and actions performed by air traffic personnel during inflight emergencies;
6. compare the duties performed by Flight Data and Clearance Delivery personnel;
7. compare the duties performed by Ground and Local Control personnel;
8. identify Visual Flight Rules and Instrument Flight Rules procedures during departure, en route, and approach phases of flight;
9. explain the function of terminal and en route radar systems used by ATC personnel; and
10. research the future challenges facing the national airspace system in the United States.

Major Topics

- I. The history of air traffic control and the development of the National Airspace System
- II. Aviation publications, regulations, and information distribution systems
- III. Pilot and air traffic controller communications
- IV. National Weather Service forecasting, observation, and reporting systems
- V. The use of weather information by pilots and air traffic control personnel
- VI. Air Traffic Management responsibilities and procedures during inflight emergencies
- VII. Visual and Instrument Flight Rules procedures
- VIII. Duties and responsibilities of air traffic control tower and radar facility personnel
- IX. Flight Service Stations, flight planning, and weather dissemination
- X. Current and planned modifications to the ATC system in the United States

The Common Course Outline (CCO) determines the essential nature of each course.

For more information, see your professor's syllabus.

Course Requirements

Grading will be determined by the individual faculty member, but shall include the following, at minimum:

- 2 examinations
- comprehensive final exam
- 2 writing assignments such as flight plans, special topic papers, current event reports, article or textbook summaries, and research or case study analysis papers

Written assignments and research projects: Students are required to use appropriate academic resources in their research and cite sources according to the style selected by their professor.

Other Course Information

This course is a required course in all Associate of Applied Science Aviation Technology degree programs.

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