

AVMT 236

Commercial Pilot Ground School

3 Credits

Community College of Baltimore County Common Course Outline

Description

AVMT 236 – Commercial Pilot Ground School: provides all required ground instruction for the Federal Aviation Administration (FAA) Commercial Pilot Certificate. This course addresses both airplane and helicopter topics including advanced aerodynamics, high performance aircraft, advanced aircraft systems, regulations, human factors, high altitude flight operations, turbine propulsion systems, safety, and Crew Resource Management (CRM).

Pre-requisites: AVMT 231 and approval of the Aviation Program Director

Overall Course Objectives

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

1. evaluate aviation weather reports and forecasts for hazards affecting flight operations ;
2. explain the operation and limitations of advanced navigation systems and autopilots;
3. describe high performance and complex aircraft operations and associated systems;
4. interpret regulations that relate to commercial flight operations;
5. discuss the operation and limitations of reciprocating powerplants and related systems;
6. explain the operation and limitations of turbine powerplants and associated systems;
7. contrast advanced airplane and helicopter aerodynamics;
8. perform weight and balance and aircraft performance calculations;
9. describe maximum performance maneuvers for airplanes and helicopters; and
10. perform a risk assessment based on human factors, aircraft, and the flight environment.

Major Topics

- I. Aviation meteorology
- II. Advanced navigation systems and autopilots
- III. Regulations applicable to commercial flight operations
- IV. Piston aircraft engines and related systems
- V. Turbine propulsion systems design and operation
- VI. Advanced aerodynamics relating to airplanes and helicopters
- VII. Aircraft performance, loading, and weight and balance
- VIII. Maximum performance flight maneuvers
- IX. Multi-engine airplane and advanced helicopter operations
- X. Risk assessment, human factors, and CRM

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 events reports, article or textbook summaries, research or case study analysis papers, and personal journals

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 the Associate of Applied Science Aircraft Dispatcher, Professional Pilot Airplane, and Professional Pilot Helicopter Aviation Technology degree programs.

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