AVMT 231
Instrument Pilot Ground School
4 Credits

Community College of Baltimore County
Common Course Outline

Description

AVMT 231 – Instrument Pilot Ground School: provides all required ground instruction for the Federal Aviation Administration (FAA) Instrument Rating. This course addresses both airplane and helicopter topics including flight by reference to instruments, navigation systems, instrument flight rules, weather, departures and arrivals, approach procedures, flight planning, safety, communications, and flight physiology.

Pre-requisites: AVMT 131 and approval of the Aviation Program Director

Overall Course Objectives

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

1. identify the requirements and steps to earning an instrument rating;
2. describe aircraft instrument functions;
3. analyze instrument malfunctions and proper procedures in the event of failure;
4. demonstrate Air Traffic Control radio communication procedures and clearances;
5. examine the structure of the National Airspace System as it relates to instrument flying;
6. explain effective instrument scan and cross-checks;
7. demonstrate departure and arrival procedures;
8. evaluate proper holding pattern entry procedures;
9. justify a flight plan and a risk assessment for an instrument cross country flight;
10. interpret weather reports and forecasts to identify conditions that may impact safety; and
11. evaluate resources available to pilots in the event of a system or equipment malfunction.

Major Topics

   I.   Instrument systems
  II.   Flight by reference to instruments
 III.   Instrument flight rules
  IV.   The National Airspace System
   V.   Navigation equipment and associated systems
  VI.   Meteorology
 VII.   Communications and pilot-controller phraseology
VIII.   Flight physiology
  IX.   Instrument Flight Rules (IFR) Regulations
   X.   Flight safety, aeronautical decision-making, and crew resource management

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 Air Traffic Control, Aircraft Dispatcher, Professional Pilot Airplane, Professional Pilot Helicopter, and Professional Pilot Unmanned Aircraft Systems Aviation Technology degree programs.

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