

Master Syllabus

AVT 2167 - Instrument Flight Rules (IFR) Navigation & Planning

Division: Science, Mathematics and Engineering

Department: Aviation Technology

Credit Hour Total: 2.0

Lecture Hrs: 2.0

Prerequisite(s): AVT 1119

Date Revised: March 2013

Course Description:

Principles of aeronautical charts, national airspace system, aircraft navigation instruments, navigational systems and global differences in navigational operations. Air traffic control procedures and pilot responsibilities as they relate to enroute operations, terminal area and radar operations; including instrument departure and approach procedures.

General Education Outcomes:

- ▣ Critical Thinking/Problem Solving Competency
- ▣ Values/Citizenship/Community Competency

Course Outcomes:

Aeronautical Publications

Comprehend and apply aeronautical publications including Notices to Airmen (NOTAMs) and their applicability to the flight environment.

Assessment Method: Behavioral observations

Performance Criteria:

Mastery of competency at 100%

Assessment Method: Locally developed exams

Performance Criteria:

80% correct responses on exams

Instrument Flight Operations in the National Airspace System

Identify and apply federal aviation regulations related to aircraft dispatch when planning instrument flight operations in the national airspace system.

Assessment Method: Behavioral observations

Performance Criteria:

Mastery of competency at 100%

Assessment Method: Locally developed exams

Performance Criteria:

80% correct responses on exams

Navigational Systems and Instruments

Comprehend and apply principles of navigational systems including VOR, NDB, and GPS and limitations of flight instruments and navigational systems as it applies to flight planning.

Assessment Method: Behavioral observations

Performance Criteria:

Mastery of competency at 100%

Assessment Method: Locally developed exams

Performance Criteria:

80% correct responses on exams

Precision and Non-Precision Procedures for Departure, Enroute, and Arrival

Comprehend and apply the principles of precision and non-precision instrument flight procedures for departure, enroute, arrival and their relationship to weather in flight planning.

Assessment Method: Behavioral observations

Performance Criteria:

Mastery of competency at 100%

Assessment Method: Locally developed exams

Performance Criteria:

80% correct responses on exams

Air Traffic Control Procedures

Comprehend air traffic operations for enroute and terminal areas. Understand the use of radar and the execution of instrument departure and approach procedures.

Assessment Method: Locally developed exams

Performance Criteria:

Mastery of competency at 100%

Assessment Method: Simulations

Performance Criteria:

Mastery of competency at 100%

Outline:

Aeronautical chart use
Flight instrument systems
Departure, enroute and arrival procedures
Instrument navigation
Federal Aviation Regulations
Flight planning
Notices to Airmen and their applicability to the flight environment
Air traffic control procedures
Instrument departure and approach procedures