

Master Syllabus

AVT 2211 - Advanced Navigation Science

Division: Science, Mathematics and Engineering

Department: Aviation Technology

Credit Hour Total: 2.0

Lecture Hrs: 2.0

Prerequisite(s): AVT 1170

Other Prerequisite(s): AND Approval of Department

Date Revised: October 2013

Course Description:

Study of advanced navigational systems used in commercial and corporate flight operations. Global Positioning Systems (GPS), Flight Management Systems (FMS) and automated flight planning programs will be demonstrated and practiced. Study of long range navigational procedures.

General Education Outcomes:

- ▣ Critical Thinking/Problem Solving Competency
- ▣ Values/Citizenship/Community Competency
- ▣ Computer Literacy Competency
- ▣ Information Literacy Competency

Course Outcomes:

Long range navigation

Demonstrate and construct a North Atlantic flight plan incorporating proper procedures using plotting charts, track messages and notices to airmen (NOTAMS).

Assessment Method: Portfolios
Performance Criteria:

Score 80% or higher

Automated flight planning

Comprehend and prepare a flight utilizing an automated flight planning program using arrival and/or departure procedures.

Assessment Method: Locally developed exams
Performance Criteria:

Score 80% or higher on exams

Integrated navigational system operation

Identify the functions of an integrated navigation system and apply techniques to load, verify and modify a flight plan.

Assessment Method: Locally developed exams
Performance Criteria:

Score 80% or higher

Outline:

US enroute, arrival and departure procedures
Flight instrument systems
North Atlantic Track System
Instrument navigation
Federal Aviation Regulations
Garmin GNS430 Operations
Automated flight planning operations