

SYLLABUS
PART I
EDISON STATE COMMUNITY COLLEGE
AVN 111S INSTRUMENT GROUND
3 CREDIT HOURS

COURSE DESCRIPTION

Instrument Flight Rules (IFR) and procedures, advanced flight planning and navigation, Federal Aviation Regulations (FAR's), controlled airspace procedures and advanced communications. Students will also prepare for the Federal Aviation Administration (FAA) computer-based Instrument Rating knowledge test. Prerequisite or Co-requisite: AVN 102S and/or department permission. Lab fee.

COURSE GOALS

The student will:

Bloom's Level		Program Outcomes
3	1. Develop attitude instrument flying concepts.	1,3,4
3	2. Demonstrate knowledge of aircraft instruments and systems related to IFR flight.	1,3,4
3	3. Demonstrate knowledge of IFR regulations.	1,6,7
5	4. Comprehend IFR publications and communication procedures.	1,6,10
3	5. Demonstrate knowledge of IFR cross country flight planning.	1,5,6,7,8
3	6. Demonstrate knowledge of departure, enroute, and arrival procedures.	1,6
3	7. Demonstrate knowledge of lost communication procedures.	1,4,6,8,10
3	8. Demonstrate knowledge of aeromedical factors and illusions.	1,5,6,8
5	9. Comprehend navigation systems.	1,4,8
3	10. Demonstrate knowledge of VHF Omnidirectional Range (VOR), localizer, and GPS.	1,4,8
3	11. Demonstrate knowledge of airport lighting, markings, and approach guidance systems.	1,8
5	12. Develop weather theory knowledge.	1,5
3	13. Demonstrate knowledge of the atmosphere, air masses, and frontal systems.	1,5
3	14. Demonstrate knowledge of winds and turbulence.	1,5
3	15. Demonstrate knowledge of cloud formations, fog, and icing.	1,5
3	16. Demonstrate knowledge of precipitation types and convective activity.	1,5
2	17. Interpret FAA approved aviation weather services.	1,5,6
3	18. Demonstrate knowledge of weather forecast services to include large area charts, airmets and sigmets, icing and turbulence forecasts, etc.	1,5,6
3	19. Demonstrate how to obtain weather information and make an informed decision.	1,6

CORE VALUES

The Core Values are a set of principles that guide in creating educational programs and environments at Edison State Community College. They include communication, ethics, critical thinking, human diversity, inquiry/respect for learning, and interpersonal skills/teamwork. The goals, objectives, and activities in this course will introduce/reinforce those Core Values wherever appropriate.

TOPIC OUTLINE

1. IFR aircraft systems and instruments
2. IFR regulations
3. Cross country flight planning for IFR flight

4. Departure, enroute, and approach charts
5. Aeromedical factors and illusions
6. Navigation systems: ground and satellite
7. Weather theory
8. Approved weather sources of information
9. Electronic flight bags and applications
10. FAA computer-based Instrument Rating knowledge test