

SYLLABUS
PART I
EDISON STATE COMMUNITY COLLEGE
AVN 112S INSTRUMENT FLIGHT LAB
2 CREDIT HOURS

COURSE DESCRIPTION

Apply the concepts learned in the Instrument Ground course to develop the aeronautical skills, flight proficiency, and flight experience necessary to meet the requirements for an Instrument Rating. Prerequisite or Co-requisite: AVN 111S and/or department permission. Lab fee.

COURSE GOALS

The student will:

Bloom's Level		Program Outcomes
5	1. Develop the aeronautical experience to conduct attitude instrument flying.	2,3,4
3	2. Demonstrate the ability to control the aircraft through sole reference to the flight instruments.	2,3,4,6
3	3. Demonstrate the ability to control the aircraft during simulated instrument failures.	2,3,4,6
5	4. Develop the aeronautical experience to intercept and track navigation systems, conduct holds, precision and non-precision approaches.	2,8
3	5. Demonstrate the ability to intercept and track to a VOR (VHF omnidirectional radio range), GPS (global positioning system), and a localizer.	2,8
3	6. Demonstrate the ability to communicate clearly with air traffic control.	2,10
3	7. Demonstrate the ability to hold at a VOR, a localizer, a GPS fix, and an intersection.	2,4,8
3	8. Demonstrate the ability to conduct a VOR, localizer, and RNAV (GPS) approaches.	2,4,8
3	9. Demonstrate the ability to conduct an ILS (instrument landing system) and GPS WAAS (wide area augmentation system) approach.	2,4,8
5	10. Combine previous aeronautical experience to conduct cross country flight in the national airspace system and emergency procedures as they pertain to instrument flight.	2,3,4,5,6,7
3	11. Demonstrate the ability to plan and execute IFR (instrument flight rules) cross country flight.	2,3,5,6,7,10
3	12. Demonstrate the ability to handle system failure and communication failure during IFR flight.	2,3,4,6,8,10
5	13. Develop the skills to pass the FAA instrument rating practical exam in a single engine land airplane (ASEL).	1,2
5	14. Practice previously learned maneuvers and operations to practical test standards.	1,2
5	15. Compile aeronautical knowledge for the practical exam.	1,2

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. Instrument flying
2. Simulated instrument failures
3. Ground based and satellite-based navigation systems
4. Air traffic control communication
5. Waypoint or fix hold procedures
6. Precision and non-precision approaches
7. IFR cross country
8. Instrument practical exam