



MASTER COURSE OUTLINE

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Date: January 2014

COURSE TITLE

Instrument Flight (Stage 6)

GENERAL COURSE INFORMATION

Dept.: AVF

Course Num: 261

(Formerly:)

CIP Code: 49.0102

Intent Code: 21

Program Code:

Credits: 4

Total Contact Hrs Per Qtr.: 44

Lecture Hrs: 44

Lab Hrs:

Other Hrs:

Distribution Designation: General Elective (GE)

COURSE DESCRIPTION (as it will appear in the catalog)

Provides training in instrument flight procedures in preparation for the airplane instrument rating; includes simulator training.

PREREQUISITES

AVF 252

TEXTBOOK GUIDELINES

FAA-H-8083-15

Professional Pilot Course Handbook by Big Bend Community College

Instrument Airplane Practical Test Standards by FAA, FAA S-8081-4

COURSE LEARNING OUTCOMES

Upon successful completion of the course, students should be able to demonstrate the following knowledge or skills:

1. Satisfactorily demonstrate in flight all maneuvers/procedures required in the FAA instrument - airplane Practical Test Standards

INSTITUTIONAL OUTCOMES

IO1 **Communication:** Students will be able to communicate clearly and effectively

COURSE CONTENT OUTLINE

1. BASIC INSTRUMENTS AND RADIO NAV. REVIEW

Objective: The student shall review basic instrument flying and review tracking/intercepts of predetermined courses.

2. SIMULATOR VOR HOLDING AND APPROACHES

Objective: The student shall review and practice IFR maneuvers, takeoffs, climbs, holding and introduction to VOR approaches.

3. HOLDING PATTERNS AND VHF NAV

Objective: The student shall plan a flight down an airway to hold at an intersection, depart the holding pattern and fly to a VOR, and enter a holding pattern.

4. VOR APPROACHES

Objective: The student shall become more familiar with the procedures, timing and communications necessary to fly a VOR approach.

5. SIMULATOR: USE OF DME

Objective: The student shall be able to use distance-measuring equipment to conduct en route operations and VOR approaches.

6. VOR APPROACHES AND RADAR VECTORS

Objective: The student shall become proficient in flying a familiar VOR approach, with or without the use of radar vectors.

7. TWO VFR SOLO CROSS-COUNTRY FLIGHTS

Objective: The student shall plan and execute two VFR cross- countries along airways. Special emphasis shall be placed on radio navigation, position reports, intersection identification, accurate time estimates, and altitude control. The cross-countries shall be to airports where later IFR cross-countries could be flown.

8. SIMULATOR: ADF USE AND NAVIGATION

Objective: The student shall practice using ADF as the sole means of navigation.

9. GPS—USE AND NAVIGATION

Objective: The student shall become proficient in using the GPS as a substitute for specified fixes.

10. SIMULATOR: LOCALIZER TRACKING AND PRACTICE ILS APPROACHES

Objective: The student shall become familiar with tracking inbound/outbound on a localizer course and with flying the ILS approach.

11. ILS APPROACHES

Objective: The student shall fly an ILS approach, become familiar with the sensitivity of the localizer and glide slope needles, and shall understand the necessary procedures and communications.

12. VFR SOLO PRACTICE

Objective: The student shall practice VFR maneuvers, take-offs, and landings.

13. SIMULATOR: GPS APPROACHES

Objective: The student shall use the GPS to track to and from any selected waypoint, and make an approach to an airport using the GPS as the only means of navigation on the approach.

14. GPS HOLDING AND APPROACHES

Objective: The student shall become proficient in holding and flying GPS approaches.

15. SIMULATOR: REVIEW AND EMERGENCY PROCEDURES

Objective: The student shall practice IFR maneuvers as assigned with special emphasis on emergencies, emergency procedures, and missed approaches.

16. SIMULATOR: REVIEW

Objective: The student shall practice IFR maneuvers as assigned by the instructor, with emphasis on proper procedures and accurate navigation on approaches.

17. DP, VOR/GPS APPROACHES AND EN ROUTE PROCEDURES

Objective: The student shall become familiar with the instrument departure procedures, en route procedures, and increase proficiency in flying VOR and GPS approaches including altitude callouts and approach briefing.

18. CROSS-COUNTRY ON AIRWAY

Objective: The student shall become familiar with cross-county planning, communications, and procedures required to conduct cross-country flights to other airports.

19. LONG 250 NM IFR CROSS-COUNTRY FLIGHT

Objective: The student shall perform all cross-country planning, communications and procedures, in simulated or actual IFR conditions, on federal airways or as routed by ATC, on a flight of at least 250 nautical miles, with one segment consisting of at least a straight line distance of 100 NM., including two different types of non-precision approaches and an ILS approach, each at different airports.

20. VFR SOLO PRACTICE

Objective: The student shall practice VFR maneuvers as assigned by the instructor, with special emphasis on landings.

21. PRACTICE SELECTED APPROACHES AND REVIEW

Objective: The student shall practice various IFR maneuvers (including altitude callout procedures and approach briefing procedures), with special emphasis on those that have been troublesome, review instrument departures, holding, en route navigation, approaches, and partial panel.

22. STAGE 6 FLIGHT CHECK

Objective: During this lesson, the instructor will determine the student's proficiency in all "areas of operation" necessary to safely and properly conduct instrument flight operations.

DEPARTMENTAL GUIDELINES *(optional)*

Evaluation is by in flight demonstration of proficiency, written test, and completion of home assignments.

Grading:

Satisfactory performance of **in-flight** maneuvers, procedures, written test (at least 70%) and home assignments

_____ Pass

Unsatisfactory performance of **in-flight** maneuvers, procedures, written test or home assignments _____ Fail

DIVISION CHAIR APPROVAL

DATE