

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE

GROUND TRAINING SYLLABUS

OBJECTIVE

During this course, the student will review and gain instructional knowledge of all aeronautical knowledge areas required for the Certified Flight Instructor Instrument Certificate. Aspects of instrument flight for which university aircraft are not equipped (GPS Area Navigation, HSI, FMS equipment operation etc.) will be taught at the knowledge level only.

COMPLETION STANDARD

This course is complete when the student has taken the Final written exam with a minimum passing score of 70%, and the instructor has reviewed each incorrect response to ensure complete understanding.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE

GROUND TRAINING SYLLABUS

LESSON TIME ALLOCATION

<u>Lesson</u>	<u>Time</u>
1 . . . . .	.1.0*
2 . . . . .	.1.0
3 . . . . .	.1.0
4 . . . . .	.1.5
5 . . . . .	.1.5
6 . . . . .	.1.5
7 . . . . .	.1.0
8 . . . . .	.2.0
9 . . . . .	.3.0
10 . . . . .	.1.0
11	<u>.0.5</u>
 TOTAL	 15.0 Hours

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE

GROUND TRAINING SYLLABUS

Ground Lesson 1

Test Reference: Aviation Instructor's Handbook - FAA-H-8083-9

Lesson Objective:

The student will review and reinforce his knowledge of the fundamentals of instruction.

Content:

Lesson Introduction

Fundamentals of Instruction

- The Learning Process
- Elements of Effective Teaching
- Student Evaluation and Testing
- Course Development
- Lesson Planning
- Classroom Training Techniques

Completion Standards:

The student will demonstrate through oral discussion, practical demonstration, or quizzing the knowledge and understanding required to effectively teach a student.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE
GROUND TRAINING SYLLABUS

Ground Lesson 2

Text Reference:

14 CFR Sections 61 and 141
FAA-S-8081-4C, "Instrument Rating Practical Test Standards"
FAA-S-8081-9, "Flight Instructor Instrument Practical Test Standards"

Lesson Objective:

The student will review and develop instructional knowledge of training requirements for instrument and instrument flight instructor ratings, requirements for an instrument proficiency check and PTS requirements for the instrument rating (airplane) and flight instructor instrument practical tests.

Content:

Instrument Rating Training Requirements (61.65, 61 Subpart H and 141, Appendix C)

- Experience Requirements
- Aeronautical Knowledge Training Requirements
- Flight Training Requirements

Instrument Proficiency Check (61.57(d))

Instrument Rating and Instrument Flight Instructor Practical Test Standards

- Flight Instructor Responsibility
- Overview of AO's and Tasks required
- Satisfactory Performance for Tasks (emphasis on headings, altitudes and course tracking)

Completion Standards:

The student will demonstrate through oral discussion, practical demonstration, understanding of experience, and training requirements for the instrument and instrument flight instructor rating and PTS requirements for the instrument and instrument flight instructor rating.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE

GROUND TRAINING SYLLABUS

Ground Lesson 3

Test Reference: Instrument Flying Handbook FAA-H-8083-15,
Chapter 3 - "Flight Instruments"

Lesson Objective:

The student will review and reinforce his knowledge of the basic flight instruments, their corresponding systems, and radio navigation equipment. During this lesson the student will develop instructional knowledge of these subject areas as they pertain to instrument flight.

Content:

Pitot-Static Systems and Instruments

- Sensitive Altimeter
- Airspeed Indicators
- Vertical Speed Indicators
- Position Error

Compass Systems

- Magnetic Compass
- Vertical Card Magnetic Compasses
- Flux Gate Compass
- Remote Indicating Compass

Gyroscopic Systems and Instruments

- Power Sources (Electrical and Pneumatic)
- Attitude Indicators
- Heading Indicators
- Turn Coordinator

Flight Director Systems

- Horizontal Situation Indicator (HSI)
- Attitude Director Indicator (ADI)

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE
GROUND TRAINING SYLLABUS

Ground Lesson 3 (Continued)

Instrument System Preflight Procedures

- Before Engine Start
- After Engine Start
- Taxiing and Takeoff
- Engine Shutdown

Completion Standards:

The student will demonstrate through oral discussion, practical demonstration, or quizzing the knowledge and understanding required to effectively teach basic flight instruments.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE
GROUND TRAINING SYLLABUS

Ground Lesson 4

Text Reference: Instrument Flying Handbook - FAA-H-8083-15, Chapter 1 "Human Factors", Chapter 4 "Airplane Attitude Instrument Flying," Chapter 5 "Airplane Basic Flight Maneuvers"

Lesson Objective:

The student will review aviation physiology related to instrument flight, and different teaching methods used for instructing in the control of an aircraft by flight instruments and will develop instructional knowledge of these subject areas.

Content:

Human Factors

- Sensory Systems for Orientation
- Illusions Leading to Spatial Disorientation
- Demonstrating and Coping with Spatial Disorientation
- Optical Illusions
- How to Prevent Landing Errors Due to Visual Illusions
- Vision Under Dim and Bright Illumination
- Physiological and Psychological Factors
- Medical Factors
- Aeronautical Decision Making

Airplane Attitude and Instrument Flying

- Fundamental Skills
- Control and Performance Method
- Primary and Supporting Method

Airplane Basic Flight Maneuvers

- Straight and Level Flight
- Turns
- Approach to Stall
- Unusual Attitudes and Recoveries
- Instrument Takeoff
- Basic Instrument Flight Patterns

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE
GROUND TRAINING SYLLABUS

Ground Lesson 4 (Continued)

Completions Standards:

The student will demonstrate through discussion and oral quizzing the knowledge and understanding necessary to effectively teach human factors related to instrument flying, airplane attitude and instrument flying and basic flight maneuvers.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE
GROUND TRAINING SYLLABUS

Ground Lesson 5

Text Reference: Instrument Flying Handbook - FAA-H-8083-15, Chapter 7, "Navigation Systems"

Lesson Objective:

The student will review and develop instructional knowledge of radio navigation systems and procedures for their use in instrument flight conditions.

Content:

Basic Radio Principles

Non-Directional Radio Beacon (NDB)

- NDB and ADF Components
- Function of ADF
- Operational Errors of ADF

Very-High Frequency Omnidirectional Range (VOR)

- VOR Components
- Function of VOR
- Operational Errors of VOR
- VOR Receiver Accuracy Check

Distance Measuring Equipment

- DME Components
- Function of DME
- DME Errors

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE
GROUND TRAINING SYLLABUS

Ground Lesson 5 (Continued)

Area Navigation (RNAV) - Global Positioning System (GPS)

- GPS Components
- Function of GPS
- GPS Substitution
- IFR Flight Using GPS
- GPS Instrument Approaches
- GPS Errors
- Wide and Local Area Augmentations Systems (WASS/LAAS)

Instrument Approach Systems

- ILS (Components, Function, Errors)
- Simplified Directional Facility (SDF)
- Localizer Type Directional Aid (LDA)

Flight Management Systems (FMS)

Radar Navigation (Ground Based)

- Functions of Radar Navigation
- Airport Surface Detection Equipment
- Radar Limitations

Completion Standards:

The student will demonstrate through oral discussion, practical demonstration, or quizzing the knowledge and understanding required to effectively teach radio navigation equipment and procedures as they pertain to instrument flight.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE
GROUND TRAINING SYLLABUS

Ground Lesson 6

Text Reference: Instrument Flying Handbook - FAA-H-8083-15, Chapter 8, "The National Airspace System," NOS Enroute and Terminal Procedures Charts, Jeppesen Airway Manual

Lesson Objective:

The student will review and develop instructional knowledge of IFR Enroute Charts, Terminal Procedures Publications and Instrument Approach Procedures.

Content:

IFR Enroute Charts

- Airport Information
- Charted IFR Altitudes
- Navigation Features

U.S. Terminal Procedures Publications

- Departure Procedures (DPs)
- Standard Terminal Arrival Procedures (STARs)

Instrument Approach Procedures Charts (IAPs)

Completion Standards:

The student will demonstrate through oral discussion, practical demonstration, or quizzing the knowledge and understanding required to effectively teach NOS and Jeppesen Enroute and Terminal Procedures Charts.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE
GROUND TRAINING SYLLABUS

Ground Lesson 7

Text Reference: Instrument Flying Handbook - FAA-H-8083-15,
Chapter 9, "The Air Traffic Control System"

Lesson Objective:

The student will review air traffic control and ATC operations and procedures as they apply to IFR flight and develop instructional knowledge of these subject areas.

Content:

Communication/Equipment

- Navigation/Communication (NAV/COM)
- Radar and Transponders

Communication Procedures

Communication Facilities

- Automated Flight Service Stations (AFSS)
- Air Traffic Control Towers
- Terminal Radar Approach Control (TRACON)
- Tower En Route Control (TEC)
- Air Route Traffic Control Centers (ARTCC)
- Center Approach/Departure Control

Control Sequence

Completion Standards:

The student will demonstrate through oral discussion, practical demonstration, or quizzing the knowledge and understanding required to effectively teach air traffic control and ATC operations and procedures as they apply to IFR operations.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE
GROUND TRAINING SYLLABUS

Ground Lesson 8

Text Reference: Instrument Flying Handbook - FAA-H-8083-15, Chapter 10, "IFR Flight," Aeronautical Information Manual, Chapter 7, Section 1, "Meteorology"

Lesson Objective:

The student will review and develop instructional knowledge in the procurement and use of aviation weather reports and forecasts and elements of weather forecasting based upon received data and personal observation. The student will also demonstrate how to obtain weather information via DUATS, Internet and local WSI terminal.

Content:

FAA Weather Services

- AFSS
- Direct User Access Terminal System (DUATS)
- Inflight Weather Information (AFSS, EFAS, HIWAS, CWA, FISDL)
- ATC Inflight Weather Avoidance Assistance

Non-FAA Weather Services

- Internet
- Contract Services in FBO's - WSI, DTN

Weather Products

- Text Products (METAR, TAF, FA, Sigment, Airmet, Winds Aloft)
- Graphics Products (Low-Level Significant Weather Prognosis, Weather Depiction, Surface Analysis, Convective Outlook)
- Radar (Summary and Animation)
- Satellite (Visual and Infrared)

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE

GROUND TRAINING SYLLABUS

Ground Lesson 8 (Continued)

Weather Hazards

- Turbulence
- Structural Icing
- Fog
- Volcanic Ash
- Thunderstorms
- Wind Shear

Completion Standards:

The student will demonstrate through oral discussion, practical demonstration, or quizzing the knowledge and understanding required to effectively teach aviation weather and weather services as they apply to IFR flight.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE
GROUND TRAINING SYLLABUS

Ground Lesson 9

Text Reference: Instrument Flying Handbook - FAA-H-8083-15,
Chapter 10, "IFR Flight," 14 CFR, Sections 61 and 91

Lesson Objective:

The student will review and develop instructional knowledge of IFR recency requirements, IFR flight rules and conducting an IFR flight. As preparation for this lesson the student will plan an IFR cross country flight for use as a teaching aid in covering the content of this lesson.

Content:

Recent Instrument Experience (61.57(c))

Instrument Flight Rules (91.167 through 91.189)

- Fuel Requirements
- IFR Flight Plan
- VOR Equipment Checks
- ATC Clearance
- Takeoff and Landing Under IFR
- Minimum Altitudes for IFR Operations
- Course to Be Flown
- IFR Radio Communications
- Category II and III Operations

Conducting an IFR Flight

- IFR Flight Plan
- Clearances
- Departure Procedures
- En Route Procedures
- Holding Procedures
- Approaches

Completion Standards:

The student will demonstrate through oral discussion, practical demonstration, or quizzing the knowledge and understanding required to effectively teach how to flight plan and conduct an IFR flight.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE

GROUND TRAINING SYLLABUS

Ground Lesson 10

Text Reference: Instrument Flying Handbook - FAA-H-8083-15,
Chapter 11 "Emergency Procedures" 14 CFR, Section 91

Lesson Objective:

The student will review and develop instructional knowledge of emergencies related to IFR flight and actions to be taken.

Content:

Instrument Flight Rules (91.185 and 91.187)

- Two-way Radio Communications Failure
- Malfunction Reports

Emergency Operations

- Unforecast Adverse Weather
- Aircraft System Malfunctions
- Communication/Navigation Systems Malfunction
- Loss of Situational Awareness

Completion Standards:

The student will demonstrate through oral discussion, practical demonstration, or quizzing the knowledge and understanding required to teach emergencies that may be encountered in IFR flight and actions to be taken to resolve these emergencies.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE

GROUND TRAINING SYLLABUS

Ground Lesson 11

Lesson Objective:

The exam administered during this lesson evaluates the student's comprehension of the aeronautical knowledge requirements for the instrument rating and instrument flight instructor certificate in preparation for the Flight Instructor - Instrument written exam.

Content:

Final Exam

Completion Standards:

This lesson is complete when the student has completed the exam with a minimum passing score of 70%, and the instructor has reviewed each incorrect response to ensure complete understanding.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE

FLIGHT TRAINING SYLLABUS

OBJECTIVE

During this course of training, the student will review and gain instructional knowledge of the flight maneuvers and training required for the Instrument Flight Instructor rating. This will include, but not be limited to the following subjects: control and accurate maneuvering by reference to instruments, IFR navigation, instrument approaches, IFR cross-country flight procedures, and simulated emergencies while in IFR conditions. To ensure the student acquires the ability to fly the airplane in instrument conditions from the right seat, all flight maneuvers will be conducted in actual or simulated instrument conditions.

COMPLETION STANDARD

This course will be complete when the student has gained the instructional skill and knowledge required to act as an Instrument Flight Instructor and successfully completed the final stage check.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE

FLIGHT TRAINING SYLLABUS

LESSON TIME ALLOCATION

<u>Lesson</u>	<u>Dual</u>	<u>IDL</u>
1	1.0	0.7
2	1.0	0.7
3	1.0	0.7
4	1.0	0.7
5	1.0	0.7
6	1.0	0.7
7	1.0	0.7
8	1.0	0.7
9	1.0	0.7
10	1.0	0.7
11	1.0	0.7
12	1.0	0.7
13	1.0	0.7
14	1.0	0.7
15	<u>1.0</u>	<u>0.7</u>

TOTAL 15.0 Hours 10.5 Hours

Dual = dual instruction in a PA28-161 IDL = Instrument dual in a PA28-161.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE

FLIGHT TRAINING SYLLABUS

Flight Lesson 1

Lesson Objective:

During this lesson, the student will be re-introduced to IFR preflight procedures, attitude instrument flying, and controlled performance attitude instrument flight maneuvers in both full and partial panel situations from the flight instructor's position.

Content:

Preflight

- Pilot Requirements
- Aircraft Inspections
- Required Equipment
- Use of Checklists
- Preflight Instrument Check

Full and Partial Panel Instrument

- Straight and Level
- Constant Speed Climbs and Descents
- Constant Rate Climbs and Descents
- Standard Rate Turns
- Climbing and Descending Turns
- Medium and Steep Banked Turns
- Flight at Critically Slow Airspeeds
- Imminent Stall Recognition and Recovery - Power On/Off
- Changes of Airspeed
- Timed Turns
- Compass Turns
- Turn Coordinator Calibration
- Unusual Attitude Recognition and Recovery
- Spatial Disorientation
- Vertical S's
- Patterns "A" and "B"

Post Flight Procedures

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE
FLIGHT TRAINING SYLLABUS

Flight Lesson 1 (Continued)

Completion Standards:

This lesson will be complete when the student has demonstrated knowledge and understanding of IFR preflight procedures, attitude flight maneuvers, and controlled performance attitude instrument flight maneuvers. During the flight, the student should demonstrate mastery of the aircraft, at or near the standards prescribed by the Instrument Rating Practical Test Standards, so that at no time is the successful outcome of a maneuver seriously in doubt.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE
FLIGHT TRAINING SYLLABUS

Flight Lesson 2

Lesson Objective:

During this lesson, the student will be re-introduced to tracking and intercept procedures and DME Arc procedures. All these maneuvers will be flown from the flight instructor's position.

Content:

Lesson Introduction

- VOR Orientation
- VOR Radial Intercepts and Tracking
- DME Arc Intercepts
- DME Arc Tracking

Completion Standards:

This lesson will be complete when the student has demonstrated knowledge and understanding of VOR navigation procedures and DME Arc procedures. During the flight, the student should demonstrate mastery of the aircraft at or near the standards prescribed by the Instrument Rating Practical Test Standards, so that at no time is the successful outcome of a maneuver ever seriously in doubt.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE
FLIGHT TRAINING SYLLABUS

Flight Lesson 3

Lesson Objective:

During this lesson, the student will review VOR orientation, tracking and intercept procedures from the previous lesson. The student will also be re-introduced to VOR/DME, VOR intersection holding and localizer procedures while flying from the instructor's position in the aircraft.

Content:

Lesson Review (As selected by the Instructor)

- VOR Orientation
- VOR Radial Intercepts and Tracking

Lesson Introduction

- VOR/DME Holding
- Intersection Holding
- Localizer Holding

Completion Standards:

This lesson will be complete when the student has demonstrated knowledge and understanding of the various holding pattern procedures. During the flight, the student should demonstrate mastery of the aircraft at or near the standards prescribed by the Instrument Rating Practical Test Standards, so that at no time is the successful outcome of a maneuver ever seriously in doubt.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE
FLIGHT TRAINING SYLLABUS

Flight Lesson 4

Lesson Objective:

The student will review selected holding pattern procedures and be re-introduced to VOR approach procedures and GPS while flying the aircraft from the instructor's position in the aircraft.

Content:

Lesson Review (as selected by the Instructor)

- VOR/DME Holding
- Intersection Holding
- Localizer Holding

Lesson Introduction

GPS Orientation and Course Tracking

VOR Approaches

- VOR Approach Procedures
- VOR/DME Approach Procedures
- Missed Approach Procedures
- Circling Approach Procedures

Completion Standards:

This lesson will be complete when the student has demonstrated knowledge and understanding of GPS orientation and course tracking as well as VOR approach procedures. During the flight, the student should demonstrate mastery of the aircraft at or near the standards prescribed by the Instrument Rating Practical Test Standards, so that at no time is the successful outcome of a maneuver ever seriously in doubt.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE
FLIGHT TRAINING SYLLABUS

Flight Lesson 5

Lesson Objective:

The student will review selected holding pattern procedures and be re-introduced to GPS holding and approach procedures while flying the aircraft from the instructor's position in the aircraft.

Content:

Lesson Review (as selected by the Instructor)

- VOR/DME Approach Procedures
- Missed Approach Procedures
- Circling Approach Procedure
- GPS Orientation and Course Tracking

Lesson Introduction

- GPS Approaches
- GPS Holding
- Missed Approach Procedures
- Circling Approach Procedures

Completion Standards:

This lesson will be complete when the student has demonstrated knowledge and understanding of GPS approach and holding procedures. During the flight, the student should demonstrate mastery of the aircraft at or near the standards prescribed by the Instrument Rating Practical Test Standards, so that at no time is the successful outcome of a maneuver ever seriously in doubt.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE
FLIGHT TRAINING SYLLABUS

Flight Lesson 6

Lesson Objective:

The student will review GPS approaches and will be reintroduced to ILS and Localizer approach procedures while flying the aircraft from the instructor's position in the aircraft.

Content:

Lesson Review (As selected by the Instructor)

- GPS Approaches
- GPS Holding
- Missed Approach Procedures
- Circling Approach Procedures

Lesson Introduction

- ILS Approach Procedures
- LOC and LOC/BC Approach Procedures
- Circling Approach Procedures
- Missed Approach Procedures

Completion Standards:

This lesson will be complete when the student has demonstrated knowledge and understanding of all previously reviewed instrument procedures. During the flight, the student should demonstrate mastery of the aircraft at or near the standards prescribed by the Instrument Rating Practical Test Standards, so that at no time is the successful outcome of a maneuver ever seriously in doubt.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE
FLIGHT TRAINING SYLLABUS

Flight Lesson 7

Lesson Objective:

During this lesson, the student will reinforce their teaching skills by reviewing previously introduced maneuvers. Also, the student will learn to effectively teach advanced and controlled performance attitude instrument flying maneuvers. In addition, the student will prepare and present a pre-flight briefing on the subject areas introduced.

Content:

Lesson Review

- IFR Preflight
- Straight and Level (Full and Partial Panel)
- Constant Rate Climbs and Descents (Full and Partial Panel)
- Constant Speed Climbs and Descents (Full and Partial Panel)
- Turns, Climbing/Descending Turns (Full and Partial Panel)

Lesson Introduction

Full Panel or Partial Panel

- Medium and Steep Banked Turns
- Flight at Critically Slow Airspeeds
- Imminent Stall Recognition and Recovery (Power On/Off)
- Changes of Airspeed
- Unusual Attitudes Recognition and Recovery
- Spatial Disorientation
- Vertical S's
- Pattern "A" or "B"

Partial Panel

- Turn Coordinator Calibration
- Timed Turns
- Compass Turns

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE
Flight Training Syllabus

Flight Lesson 7 (Continued)

Completion Standards:

This lesson is complete when the student is able to explain and demonstrate the principles and execution of techniques of the listed subjects in accordance with the current FAA Instrument Instructor Practical Test Standards. In addition, the student will be able to recognize and explain the common errors encountered during this stage of instrument flight training and suggest effective corrective action.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE
FLIGHT TRAINING SYLLABUS

Flight Lesson 8

Lesson Objective:

During this lesson, the student will reinforce their teaching skills by reviewing previously introduced maneuvers. Also, the student will learn to effectively teach VOR and GPS navigation. In addition, the student will prepare and present a pre-flight briefing on the subject areas introduced.

Content:

Lesson Review

Full or Partial Panel

- Unusual Attitude Recognition and Recovery
- Spatial Disorientation
- Vertical S's
- Pattern "A" and "B"

Lesson Introduction

- VOR Orientation
- VOR Radial Intercepts and Tracking
- GPS Orientation
- GPS Course Tracking

Completion Standards:

This lesson is complete when the student is able to explain and demonstrate the principles and execution of techniques of the listed subjects in accordance with the current FAA Instrument Instructor Practical Test Standards. In addition, the student will be able to recognize and explain the common errors encountered during this stage of instrument flight training and suggest effective corrective action.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE
FLIGHT TRAINING SYLLABUS

Flight Lesson 9

Lesson Objective:

During this lesson, the student will reinforce their teaching skills by reviewing previously introduced maneuvers. Also, the student will learn to effectively teach DME procedures and VOR holding procedures. In addition, the student will prepare and present a pre-flight briefing on the subject areas introduced.

Content:

Lesson Review

- VOR Orientation
- VOR Radial Intercepts and Tracking

Lesson Introduction

- DME Arc Intercepts
- DME Arc Tracking
- VOR/DME Holding
- Intersection Holding

Completion Standards:

This lesson is complete when the student is able to explain and demonstrate the principles and execution of techniques of the listed subjects in accordance with the current FAA Instrument Instructor Practical Test Standards. In addition, the student will be able to recognize and explain the common errors encountered during this stage of instrument flight training and suggest effective corrective action.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE
FLIGHT TRAINING SYLLABUS

Flight Lesson 10

Lesson Objective:

During this lesson, the student will reinforce their teaching skills by reviewing previously introduced maneuvers. Also, the student will learn to effectively teach localizer and GPS holding procedures. In addition, the student will prepare and present a pre-flight briefing on the subject areas introduced.

Content:

Lesson Review (As selected by the Instructor)

- DME Arc Intercepts
- DME Arc Tracking
- VOR/DME Holding
- Intersection Holding

Lesson Introduction

- GPS Holding
- Localizer Holding

Completion Standards:

This lesson is completed when the student is able to explain and demonstrate the principles and execution of techniques of the listed subjects in accordance with the current FAA Instrument Instructor Practical Test Standards. In addition, the student will be able to recognize and explain the common errors encountered during this stage of instrument flight training and suggest effective corrective action.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE
FLIGHT TRAINING SYLLABUS

Flight Lesson 11

Lesson Objective:

During this lesson, the student will reinforce their teaching skills by reviewing previously introduced maneuvers. Also, the student will learn to effectively teach GPS approach procedures. In addition, the student will prepare and present a pre-flight briefing on the subject areas introduced.

Content:

Lesson Review (As selected by the Instructor)

- VOR Holding
- GPS Holding
- Intersection Holding
- Localizer Holding

Lesson Introduction

- GPS Approach Procedures
- Circling Approach Procedures
- Missed Approach Procedures

Completion Standards:

This lesson is completed when the student is able to explain and demonstrate the principles and execution of techniques of the listed subjects in accordance with the current FAA Instrument Instructor Practical Test Standards. In addition, the student will be able to recognize and explain the common errors encountered during this stage of instrument flight training and suggest effective corrective action.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE
FLIGHT TRAINING SYLLABUS

Flight Lesson 12

Lesson Objective:

During this lesson, the student will reinforce their teaching skills by reviewing previously introduced maneuvers. Also, the student will learn to effectively teach VOR and VOR/DME approach procedures. In addition, the student will prepare and present a pre-flight briefing on the subject areas introduced.

Content:

Lesson Review (As selected by the Instructor)

- GPS Holding
- GPS Approach Procedures

Lesson Introduction

- VOR Approach Procedures
- VOR/DME Approach Procedures
- Missed Approach Procedures
- Circling Approach Procedures

Completion Standards:

This lesson is complete when the student is able to explain and demonstrate the principles and execution of techniques of the listed subjects in accordance with the current FAA Instrument Instructor Practical Test Standards. In addition, the student will be able to recognize and explain the common errors encountered during this stage of instrument flight training and suggest effective corrective action.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE
FLIGHT TRAINING SYLLABUS

Flight Lesson 13

Lesson Objective:

During this lesson, the student will reinforce their teaching skills by reviewing previously introduced maneuvers. Also, the student will learn to effectively teach ILS and Localizer approach procedures. In addition, the student will prepare and present a pre-flight briefing on the subject areas introduced.

Content:

Lesson Review (As selected by the Instructor)

- VOR/DME Holding
- VOR Approach Procedures
- VOR/DME Approach Procedures
- Localizer Holding

Lesson Introduction

- Localizer Approach Procedures
- Localizer Back Course Approach Procedures
- ILS Approach Procedures
- Missed Approach Procedures
- Circling Approach Procedures
- Side-Step Approach Procedures

Completion Standards:

This lesson is completed when the student is able to explain and demonstrate the principles and execution of techniques of the listed subjects in accordance with the current FAA Instrument Instructor Practical Test Standards. In addition, the student will be able to recognize and explain the common errors encountered during this stage of instrument flight training and suggest effective corrective action.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE
FLIGHT TRAINING SYLLABUS

Flight Lesson 14

Lesson Objective:

During this lesson, the student will reinforce their teaching skills by reviewing previously introduced maneuvers. The student will prepare and present a pre-flight briefing on the subject areas introduced.

Content:

Lesson Review (As selected by the Instructor)

- Non-precision Approaches
- Precision Approaches
- Circling Approach Procedures
- Missed Approach Procedures
- Holding Procedures
- Orientation Using VOR and GPS
- Course Interception and Tracking Using VOR and GPS
- Partial Panel Procedures
- Unusual Attitude Recovery

Completion Standards:

This lesson is completed when the student is able to explain and demonstrate the principles and execution of techniques of the listed subjects in accordance with the current FAA Instrument Instructor Practical Test Standards. In addition, the student will be able to recognize and explain the common errors encountered during this stage of instrument flight training and suggest effective corrective action.

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE
FLIGHT TRAINING SYLLABUS

Flight Lesson 15

Lesson Objective:

This stage check will be conducted by the chief, assistant chief flight instructor or check instructor per the latest Flight Instructor Instrument Airplane PTS.

Content:

Technical Subject Areas

- Aircraft Flight Instruments and Navigation Equipment
- Regulations and Publications Related to IFR Operations

Preflight Preparation

- Cross-Country Flight Planning
- Instrument Cockpit Check

Air Traffic Control Clearances and Procedures (at least one task)

- Air Traffic Control Clearances
- Compliance with Departure, Enroute, and Arrival Procedures and Clearances

Flight by Reference to Instruments (Recovery From Unusual Flight Attitudes and at least one other task)

- Straight-and-Level Flight
- Turns
- Change of Airspeed and Straight-and Level and Turning Flight
- Constant Airspeed Climbs and Descents
- Constant Rate Climbs and Descents
- Timed Turns to Magnetic Compass Headings
- Steep Turns
- Recovery From Unusual Flight Attitudes

Navigation Systems

- Intercepting and Tracking Navigational Systems and DME Arcs
- Holding Procedures

UNIVERSITY OF OKLAHOMA - DEPARTMENT OF AVIATION 01/01/2021
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
INSTRUMENT - AIRPLANE
FLIGHT TRAINING SYLLABUS

Flight Lesson 15 (Continued)

Instrument Approach Procedures

- Non-Precision Instrument Approach
- Precision Instrument Approach
- Missed Approach
- Circling Approach
- Landing From a Straight-In Approach

Emergency Operations

- Loss of Communications
- Loss of Gyro Attitude and Heading Indicators

Completion Standards:

At the completion of this lesson, the student will display the knowledge and skill required to act as a flight instructor with an instrument rating. The student will also exhibit the ability to explain and demonstrate IFR procedures while safely acting as Pilot-In-Command. Lastly, all ground and flight procedures will be accomplished at the level required by the Flight Instructor - Instrument Airplane Practical Test Standards.