UNIVERSITY OF OKLAHOMA INSTRUMENT PILOT (3572)
FLIGHT TRAINING SYLLABUS 2026-AUG-17

PREREQUISITES FOR ENROLLMENT IN THE FLIGHT PORTION OF THE INSTRUMENT PILOT COURSE: The student must hold at least a private pilot certificate with airplane single engine land rating and have an FAA medical certificate valid for at least third class privileges.

COURSE OBJECTIVE: The student will obtain the knowledge, skill and aeronautical experience to meet the requirements of 14 CFR, Section 141, Appendix C to add an instrument airplane rating to your private pilot certificate (with existing airplane single engine land rating).

COURSE POLICY: At the discretion of the instructor, students who progress rapidly within a specific stage, may within reasonable variances, continue to the next lesson with less time than is specified in the specific lesson curriculum, provided all content and completion standards are satisfactorily completed. The time stated in the lesson is the approximate minimum time that a student would need to meet the lesson objective and completion standards; not absolute required times. The lesson time could be slightly more or slightly less. The reduced hours must be included in other lessons to complete the total ground and flight time specified by category in the syllabus in order to satisfactorily complete the course.

At no time will a student be allowed to continue to the next stage without having successfully completed all of the lessons and the required tests or stage checks related to the completion of the previous stage.

Flight training for this course will be done in accordance with the FAA approved syllabus. Deviations from the syllabus within a stage due to student training requirements weather related factors or other items as necessary will be allowed as long as the following requirements are met:

- The deviation is approved by the Chief/Asst Chief Flight Instructor.
- A notation will be made in the student's training record as to the lesson covered and the reason for the deviation.
- The student will complete all syllabus requirements before a graduation certificate is issued.

To satisfactorily complete the course of training the student must meet all course objectives and completion standards. The student must complete the required ground training and pass the FAA Instrument Rating Airplane Knowledge test prior to the completion of flight training.

EXPECTED ACCOMPLISHMENTS & STANDARDS: To satisfactorily complete each flight stage you must complete the lessons in that stage and pass the end of stage check. Each lesson lists specific objectives and standards of completion.

CHECKS & TESTS: The flight training portion of the syllabus contains a quiz at the end of Stage VI. Stages VII, VIII and IX have a quiz and stage check flight. The stage checks will be administered by the Chief/Assistant Chief Instructor or check instructor approved by the FSDO. The stage IX check is the end of course stage check which will be equal in scope, depth and difficulty to the practical test defined by the FAA Instrument Rating – Airplane Airman Certification Standards for addition of an Instrument Airplane Rating to a Private Pilot Certificate (with existing Airplane Single Engine Land Rating).

STUDYING MANEUVERS/PROCEDURES

1. Refer to the maneuver in the Airplane Flying Handbook to learn how to do the maneuver/procedure as well as common errors when attempting to execute the maneuver/procedure.
2. Refer to the University of Oklahoma Supplementary Information for Flight Students and the POH to learn specifics of executing this maneuver in the PA28-181.
3. Refer to the Instrument Rating Airplane ACS to determine the standards to which you must accomplish the maneuver in order to earn your Instrument Rating certificate.

FLIGHT LESSON TIME ALLOCATION TABLE						
Lesson	Dual	Dual XC	Dual INST.	Dual AATD	Pre/Post	GI
STAGE VI						
1				1.0	0.5	
2				1.0	0.5	
3				1.0	0.5	
4	1.0		0.8		0.5	
5	1.0		0.8		0.5	
6 QUIZ						1.0
7 STGCHK	1.0		0.8		0.5	0.5
STAGE VII						
1				1.0	0.5	
2				1.0	0.5	
3				1.0	0.5	
4				1.0	0.5	
5	1.0		0.8		0.5	
6	1.0		0.8		0.5	
7				1.0	0.5	
8				1.0	0.5	
9	1.0		0.8		0.5	
10	1.0		0.8		0.5	
11 QUIZ						1.0
12 STGCHK	1.0		0.8		0.5	0.5
STAGE VIII						
1				1.0	0.5	
2				1.0	0.5	
3	1.0		0.8		0.5	
4	1.0		0.8		0.5	
5				1.0	0.5	
6				1.0	0.5	
7	1.0		0.8		0.5	
8	1.0		0.8		0.5	
9	1.0		0.8		0.5	
10	1.0		0.8		0.5	
11 QUIZ						1.0
12 STGCHK	1.0		0.8		0.5	0.5
STAGE IX						
2	2.7	2.7	2.5		0.5	
3	4.0	4.0	3.6		0.5	
4	1.0		0.8		0.5	
5	1.0		0.8		0.5	
5	1.5		1.0		0.5	
6 QUIZ						1.0
7 EOC STGCHK	1.5		1.3		0.5	1.5
TOTAL	26.7	6.7	22.0	13.0	17.0	7.0

Flight Lesson Time Allocation Table (continued)

Dual = Flight Instruction in an Airplane
Solo = Student Solo Flight in an Airplane
Dual Night = Flight Instruction in an Airplane at Night
Dual XC = Cross Country Flight Instruction in an Airplane
Solo XC = Student Solo Cross Country Flight in an Airplane
Dual INST. = Instrument Flight Instruction in an Airplane
Dual AATD = Instrument Instruction in an Advanced Aviation Training Device
Pre/Post = Pre & Post Flight Instruction
GI= Ground Instruction

UNIVERSITY OF OKLAHOMA

STAGE VI

STAGE OBJECTIVE

The student will learn precise airplane attitude and airspeed control as well as recognize and recover from unusual flight attitudes by reference to instruments. They will also learn how to control the airplane in the event of loss of primary flight instrument indicators and learn how to determine airplane location and program/track routes of flight using the airplane navigation systems.

STAGE COMPLETION STANDARD

At the completion of this stage the student will accomplish the tasks listed in the objectives. The student's knowledge will be evaluated by an end of stage written quiz. Each lesson lists specific tasks and completion standards for those tasks.

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
							1.0	0.5	

STAGE VI FLIGHT LESSON 1 <u>DUAL-AATD</u>

LESSON OBJECTIVE:

Introduction to flight by reference to instruments. The student will learn the "Control/Performance" scanning technique to control the airplane in various flight attitudes and perform the instrument flight deck check.

CONTENT:

Lesson Introduction

Preflight Assessment

- ☐ Preflight Procedures
  - ☐ Aircraft Flight Instruments and Navigation Equipment Required for IFR Flight
  - ☐ Operation of Airplane Systems
  - ☐ Use of Checklists
  - ☐ Engine Starting
  - ☐ Cockpit Management
  - ☐ Instrument Flight Deck Check
- ☐ Full Panel Instrument
  - ☐ Straight and Level
  - ☐ Standard-Rate Turns
  - ☐ Constant Airspeed Climbs
  - ☐ Climbing Turns
  - ☐ Constant Airspeed Descents
  - ☐ Descending Turns

COMPLETION STANDARDS:

At the completion of this lesson the student will understand and recite the instrument flight deck check and
become familiar with the control/performance method of basic instrument flying.
The student will meet the applicable instrument standards found in the Private Pilot ACS.

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
							1.0	0.5	

STAGE VI FLIGHT LESSON 2 <u>DUAL-AATD</u>

LESSON OBJECTIVE:

Continue to practice flight deck instrument checks and Control/Performance method for flight by reference to instruments during various aircraft attitudes and airspeeds. While engaged in instrument flight the student will learn the operation of VOR and GPS navigation systems.

CONTENT:

Lesson Review

- ☐ Preflight Procedures
  - ☐ Instrument Flight Deck Check
- ☐ Full Panel Instrument
  - ☐ Straight and Level
  - ☐ Standard-Rate Turns
  - ☐ Constant Airspeed Climbs
  - ☐ Climbing Turns
  - ☐ Constant Airspeed Descents
  - ☐ Descending Turns

Lesson Introduction

- ☐ Full Panel Instrument
  - ☐ Recovery from Unusual Flight Attitudes
  - ☐ Maneuvering During Slow Flight
- ☐ Aircraft Navigation Equipment
  - ☐ Use of VOR
  - ☐ Use of GPS

COMPLETION STANDARDS:

The student will demonstrate an understanding of aircraft attitude control by instrument reference. Additionally, the student will demonstrate how to perform an instrument cockpit check. Under full panel instrument, the student will maintain altitudes +/-150, headings +/-15, and airspeeds +/-15 Use of VOR: Maintain course within 3/4 of full CDI deflection. Use of GPS: Establish and track a course within +/-10 degrees.

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
							1.0	0.5	

STAGE VI FLIGHT LESSON 3 <u>DUAL-AATD</u>

LESSON OBJECTIVE:

Continue to practice the Control/Performance method for flight by reference to instruments while operating VOR and GPS navigation systems. Introduction to unusual attitude recognition and recovery. Introduction to instrument flight during failure of primary attitude and heading display systems.

CONTENT:

Lesson Review

- ☐ Preflight Procedures
  - ☐ Instrument Flight Deck Check
- ☐ Full Panel Instrument
  - ☐ Straight and Level
  - ☐ Standard-Rate Turns
  - ☐ Constant Airspeed Climbs
  - ☐ Climbing Turns
  - ☐ Constant Airspeed Descents
  - ☐ Descending Turns
- ☐ Aircraft Navigation Equipment
  - ☐ Use of VOR
  - ☐ Use of GPS

Lesson Introduction

- ☐ Instrument/system Malfunctions
- ☐ Partial Panel Instrument
  - ☐ Straight and Level
  - ☐ Standard-Rate Turns
  - ☐ Constant Airspeed Climbs
  - ☐ Climbing Turns
  - ☐ Constant Airspeed Descents
  - ☐ Descending Turns
  - ☐ Maneuvering During Slow Flight
  - ☐ Recovery from Unusual Flight Attitudes
- ☐ Intercepting and tracking DME arcs

COMPLETION STANDARDS:

The student should be able to precisely control the airplane using full panel instrument reference. The student should also be able to control the airplane using only a partial panel with minimal instructor assistance. The student will meet the standards in the Instrument Pilot ACS with the following exceptions: Under full panel instrument, the student will maintain altitudes +/-150, headings +/-15, and airspeeds +/-15 Under partial panel instrument, the student will maintain altitudes +/-200, headings +/-20, and airspeeds +/-20 Use of VOR: Maintain course within 3/4 of full CDI deflection. Use of GPS: Establish and track a course within +/-10 degrees.

INSTRUCTOR NOTES:

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Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
1.0					0.8			0.5	

STAGE VI FLIGHT LESSON 4 **DUAL-AIRPLANE**

LESSON OBJECTIVE:

Transfer the tasks listed below, learned in the AATD, to the Airplane. Learn how to use the Flight Director to initiate and maintain various flight attitudes. Furthermore, the student will be introduced to IFR clearances.

CONTENT:

Lesson Review

- ☐ Preflight Procedures
  - ☐ Aircraft Flight Instruments and Navigation Equipment Required for IFR Flight
  - ☐ Operation of Airplane Systems
  - ☐ Use of Checklists
  - ☐ Engine Starting
  - ☐ Cockpit Management
  - ☐ Instrument Flight Deck Check

Lesson Introduction

- ☐ IFR Clearances
- ☐ Full Panel Instrument with and without Flight Director
  - ☐ Straight and Level
  - ☐ Standard-Rate Turns
  - ☐ Constant Airspeed Climbs
  - ☐ Climbing Turns
  - ☐ Constant Airspeed Descents
  - ☐ Descending Turns
  - ☐ Maneuvering During Slow Flight
  - ☐ Recovery from Unusual Flight Attitudes
- ☐ Aircraft Navigation Equipment
  - ☐ Use of VOR
  - ☐ Use of GPS
- ☐ Postflight Procedures

COMPLETION STANDARDS:

The lesson is complete when the student can perform each of the listed maneuvers to the minimum performance standards outlined in the current Instrument Pilot ACS with the following exceptions: Under full panel instrument, the student will maintain altitudes +/-150, headings +/-15, and airspeeds +/-15 Use of VOR: Maintain course within full-scale CDI deflection. Use of GPS: Establish and track a course within +/-10 degrees

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
1.0					0.8			0.5	

STAGE VI FLIGHT LESSON 5 <u>DUAL-AIRPLANE</u>

LESSON OBJECTIVE:

Transfer the tasks listed below, learned in the AATD, to the Airplane. Learn how to use the Flight Director in the Standby Flight Instrument Indicators to initiate and maintain various flight attitudes

CONTENT:

Lesson Review

- ☐ IFR Clearances
- ☐ Full Panel Instrument with and without Flight Director
  - ☐ Straight and Level
  - ☐ Standard-Rate Turns
  - ☐ Constant Airspeed Climbs
  - ☐ Climbing Turns
  - ☐ Constant Airspeed Descents
  - ☐ Descending Turns
- ☐ Aircraft Navigation Equipment
  - ☐ Use of VOR
  - ☐ Use of GPS
- ☐ Postflight Procedures

Lesson Introduction

- ☐ Partial Panel Instrument
  - ☐ Straight and Level
  - ☐ Standard-Rate Turns
  - ☐ Constant Airspeed Climbs
  - ☐ Climbing Turns
  - ☐ Constant Airspeed Descents
  - ☐ Descending Turns
  - ☐ Maneuvering During Slow Flight
  - ☐ Recovery from Unusual Flight Attitudes

COMPLETION STANDARDS:

The lesson is complete when the student can perform each of the listed maneuvers to the minimum performance standards outlined in the current Instrument Pilot ACS

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
									1.0

STAGE VI FLIGHT LESSON 6 <u>QUIZ</u>

LESSON OBJECTIVE:

Test the student's knowledge of this stage through a quiz.

CONTENT: The quiz will cover the following areas.

- ☐ IFR Clearances
- ☐ Preflight Procedures
  - ☐ Aircraft Systems Related to IFR Operations
  - ☐ Aircraft Flight Instruments and Navigation Equipment
  - ☐ Instrument Flight Deck Check
- ☐ Flight By Reference to Instruments
  - ☐ Instrument Flight
  - ☐ Recovery from Unusual Attitudes
- ☐ Postflight Procedures

COMPLETION STANDARDS:

The student must score 70% or higher and the instructor will review the questions missed with the student.

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
1.0					0.8			0.5	0.5

STAGE VI FLIGHT LESSON 7 <u>DUAL-STAGE CHECK</u>

LESSON OBJECTIVE:

Evaluate the student's knowledge and execution of aircraft systems related and navigation equipment related to instrument flying, basic attitude instrument flying using primary and flight instrument indicators and available instruments in the event of loss of primary flight instrument indicators using the control/performance scanning technique and recovery from unusual attitudes.

CONTENT:

Lesson Review

- ☐ IFR Clearances
- ☐ Instrument Flight Deck Check
- ☐ Full Panel Instrument with and without Flight Director
  - ☐ Straight and Level
  - ☐ Standard-Rate Turns
  - ☐ Constant Airspeed Climbs
  - ☐ Climbing Turns
  - ☐ Constant Airspeed Descents
  - ☐ Descending Turns
  - ☐ Maneuvering During Slow Flight
  - ☐ Recovery from Unusual Flight Attitudes
- ☐ Partial Panel Instrument
  - ☐ Straight and Level
  - ☐ Standard-Rate Turns
  - ☐ Constant Airspeed Climbs
  - ☐ Climbing Turns
  - ☐ Constant Airspeed Descents
  - ☐ Descending Turns
  - ☐ Maneuvering During Slow Flight
  - ☐ Recovery from Unusual Flight Attitudes
- ☐ Aircraft Navigation Equipment
  - ☐ Use of VOR
  - ☐ Use of GPS
- ☐ Postflight Procedures

COMPLETION STANDARDS:

The lesson is complete when the student can perform each of the listed maneuvers to the minimum performance standards outlined in the current Instrument Pilot ACS.

INSTRUCTOR NOTES:

STAGE VII

STAGE OBJECTIVE

During this stage the student will continue to practice basic attitude instrument flying, gain greater proficiency in using VOR and GPS navigation systems and learning holding procedures.

STAGE COMPLETION STANDARD

At the completion of this stage the student will accomplish the tasks listed in the objectives. The student's knowledge, skill and risk management will be evaluated by an end of stage written quiz and flight check. Each lesson lists specific tasks and completion standards for those tasks.

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
							1.0	0.5	

STAGE VII FLIGHT LESSON 1 <u>DUAL-AATD</u>

LESSON OBJECTIVE:

Review Preflight procedures regarding the instrument flight deck check, flight by reference to instruments and basic operation of VOR and GPS navigation equipment.

CONTENT:

Lesson Review

- ☐ Instrument Flight Deck Check
- ☐ Full Panel Instrument
- ☐ Aircraft Navigation Equipment – VOR

Lesson Introduction

- ☐ Elements of a Holding Clearance
- ☐ Holding Procedures
  - ☐ Parts of a hold
  - ☐ Holding entries
  - ☐ Holding Speeds
  - ☐ Bank Angle During Holds
  - ☐ Timed hold
- ☐ VOR Holding

COMPLETION STANDARDS:

At the completion of the lesson the student will be familiar with the parts, entries, and timing of a hold. Aircraft control will be maintained to the standards of the Instrument PIlot ACS.

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
							1.0	0.5	

STAGE VII FLIGHT LESSON 2 <u>DUAL-AATD</u>

LESSON OBJECTIVE:

Review flight by reference to instruments and VOR holding procedures. Introduction to wind factors in holds and risk management in holding operations.

CONTENT:

Lesson Review

- ☐ Instrument Flight Deck Check
- ☐ Full Panel Instrument
- ☐ Aircraft Navigation Equipment
  - ☐ Use of VOR
- ☐ Elements of a Holding Clearance
- ☐ Holding Procedures
  - ☐ Parts of a hold
  - ☐ Holding entries
  - ☐ Holding Speeds
  - ☐ Bank Angle During Holds
  - ☐ Timed hold
- ☐ VOR Holds

Lesson Introduction

- ☐ Holding Procedures
  - ☐ Wind correction
  - ☐ Inbound/Outbound
  - ☐ Crosswind
  - ☐ Time corrections
- ☐ Risk Management Associated with Holding Operations

COMPLETION STANDARDS:

At the completion of the lesson the student will increase familiarity with the parts, entries, and timing of a hold. Furthermore, the student will understand how wind affects the holding pattern. Additionally, by the third turn
Inbound to the holding fix the student will demonstrate a smooth interception of the inbound course and the time from roll out to the fix will be one minute, +/- 30 seconds. Aircraft control will be maintained to the standards of the Instrument Pilot ACS. Risk Management: In a scenario provided by the instructor identify a hazard, associated risk and select a course of action to deal with the risk.

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
							1.0	0.5	

STAGE VII FLIGHT LESSON 3 <u>DUAL-AATD</u>

LESSON OBJECTIVE:

Learn how to execute DME fix, Intersection, and Localizer holds. Review GPS and VOR operations. Review risk management when conducting holding operations.

CONTENT:

Lesson Review

- ☐ Full Panel Instrument
- ☐ Aircraft Navigation Equipment
  - ☐ Use of VOR
- ☐ Holding Procedures
- ☐ Risk Management Associated with Holding Operations
- ☐ Power Settings in Holding Patterns

Lesson Introduction

- ☐ Published Holds on the Low Enroute Chart
- ☐ Use of GPS for holds off of a NAVAID
- ☐ DME Fix Holding
- ☐ Localizer Holding
- ☐ Intersection Holding
- ☐ Power Settings in Holding Patterns

COMPLETION STANDARDS:

The student will demonstrate an understanding of the procedures used to intercept and track ,VOR and DME Fix, Localizer, and intersection holding to include execution of the optimum holding entry procedure and application of the correct wind correction angles and time correction. Additionally, by the third turn inbound to the holding fix, the student will demonstrate a smooth interception of the inbound course and the time from roll out to the fix will be one minute, +/- 30 seconds.
Aircraft control will be maintained to the standards of the Instrument Pilot ACS.
Risk Management: In a scenario provided by the instructor identify a hazard, associated risk and select a course of action to deal with the risk. Power Setting: Determine the power setting to maximize fuel endurance.

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
							1.0	0.5	

STAGE VII FLIGHT LESSON 4 <u>DUAL-AATD</u>

LESSON OBJECTIVE:

Review VOR/DME, VOR intersection and Localizer holds, Review GPS and VOR operations. Review risk management when conducting holding operations.

CONTENT:

Lesson Review

- ☐ Full Panel Instrument
- ☐ Aircraft Navigation Equipment
  - ☐ Use of VOR
  - ☐ Use of GPS
- ☐ Holding Procedures
- ☐ Published Holds on the Low Enroute Chart
- ☐ DME Fix Holding
- ☐ Localizer Holding
- ☐ Intersection Holding
- ☐ Risk Management Associated with Holding Operations
- ☐ Power Settings in Holding Patterns

COMPLETION STANDARDS:

The student will demonstrate an understanding of the procedures used to intercept and track ,VOR and DME Fix, Localizer, and intersection holding to include execution of the optimum holding entry procedure and application of the correct wind correction angles and time correction. Additionally, by the third turn inbound to the holding fix, the student will demonstrate a smooth interception of the inbound course and the time from roll out to the fix will be one minute, +/- 20 seconds. Aircraft control will be maintained to the standards of the Instrument Pilot ACS.
Risk Management: In a scenario provided by the instructor identify a hazard, associated risk and select a course of action to deal with the risk. Power Setting: Determine the power setting to maximize fuel endurance.

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
1.0					0.8			0.5	

STAGE VII FLIGHT LESSON 5 <u>DUAL-AIRPLANE</u>

LESSON OBJECTIVE:

Transfer the tasks listed below, learned in the AATD, to the Airplane. Use the flight director in Heading and Navigation mode to execute these tasks. Review risk management in holding operations.

CONTENT:

Lesson Review

- ☐ Full Panel Instrument
- ☐ Aircraft Navigation Equipment
  - ☐ Use of VOR
  - ☐ Use of GPS
- ☐ Flight Director Usage
- ☐ DME Fix Holding
- ☐ Localizer Holding
- ☐ Risk Management Associated with Holding Operations

COMPLETION STANDARDS:

The student will demonstrate the optimum holding entry procedure and apply the correct wind correction angles and timing correction. Additionally, by the third turn inbound to the holding fix the student will demonstrate a smooth interception of the inbound course and the time from roll out to the fix will be one minute, +/- 20 seconds.Aircraft control will be maintained to the standards of the Instrument Pilot ACS.Risk Management: In a scenario provided by the instructor identify a hazard, associated risk and select a course of action to deal with the risk.

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
1.0					0.8			0.5	

STAGE VII FLIGHT LESSON 6 <u>DUAL-AIRPLANE</u>

LESSON OBJECTIVE:

Transfer the tasks listed below, learned in the AATD, to the Airplane. Use the flight director in Heading and Navigation mode to execute these tasks. Review risk management in holding operations. Use the autopilot in execution of these tasks.

CONTENT:

Lesson Review

- ☐ Full Panel Instrument
- ☐ Aircraft Navigation Equipment
  - ☐ Use of VOR
  - ☐ Use of GPS
- ☐ Flight Director Usage
- ☐ DME Fix Holding
- ☐ Localizer Holding
- ☐ Risk Management Associated with Holding Operations

Lesson Introduction

- ☐ Autopilot Usage

COMPLETION STANDARDS:

The student will demonstrate the optimum holding entry procedure and apply the correct wind correction angles and timing correction. Additionally, by the third turn inbound to the holding fix the student will demonstrate a smooth interception of the inbound course and the time from roll out to the fix will be one minute, +/- 10 seconds.Aircraft control will be maintained to the standards of the Instrument Pilot ACS. Risk Management: In a scenario provided by the instructor identify a hazard, associated risk and select a course of action to deal with the risk. Autopilot Usage: In conjunction with the Flight Director use the autopilot to execute the holds. Recognize if
the autopilot is unable to maintain airplane altitude, heading and/or course within ACS standards and disengage
it if required
und course and the time from roll out to the fix will be one minute, +/- 10 seconds.

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Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
							1.0	0.5	

STAGE VII FLIGHT LESSON 7 <u>DUAL-AATD</u>

LESSON OBJECTIVE:

Review risk management while conducting holding operations. Introduction to RNAV/GPS holding procedures.

CONTENT:

Lesson Review

- ☐ Full Panel Instrument
- ☐ Aircraft Navigation Equipment
  - ☐ Use of GPS
- ☐ Risk Management Associated with Holding Operations

Lesson Introduction

- ☐ Elements of an RNAV/GPS Holding Clearance
- ☐ Published GPS Holding
  - ☐ Hold-In-Lieu vs. Missed Approach

COMPLETION STANDARDS:

The student will demonstrate an understanding of the parts of, loading, procedures, and execution of GPS holding. Aircraft control will be maintained to the standards of the Instrument Pilot ACS. Risk Management: In a scenario provided by the instructor identify a hazard, associated risk and select a course of action to deal with the risk.

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
							1.0	0.5	

STAGE VII FLIGHT LESSON 8 <u>DUAL-AATD</u>

LESSON OBJECTIVE:

Review risk management while conducting holding operations. Review RNAV/GPS holding Procedures.

CONTENT:

Lesson Review

- ☐ Full Panel Instrument
- ☐ Aircraft Navigation Equipment
  - ☐ Use of GPS
- ☐ Elements of an RNAV/GPS Holding Clearance
- ☐ Published GPS Holding
  - ☐ Hold-In-Lieu vs. Missed Approach
- ☐ Risk Management Associated with Holding Operations

COMPLETION STANDARDS:

The student will demonstrate an understanding of the parts of, loading, procedures, and execution of GPS Holding. Aircraft control will be maintained to the standards of the Instrument Pilot ACS. Risk Management: In a scenario provided by the instructor identify a hazard, associated risk and select a course of action to deal with the risk.

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
1.0					0.8			0.5	

STAGE VII FLIGHT LESSON 9 <u>DUAL-AIRPLANE</u>

LESSON OBJECTIVE:

Transfer the tasks listed below, learned in the AATD, to the Airplane. Use the flight director in Heading and Navigation mode to execute these tasks. Review risk management in holding operations. Use the autopilot in execution of these tasks. Learn how to program and execute an unpublished RNAV/GPS hold.

Lesson Review

- ☐ Full Panel Instrument
- ☐ Aircraft Navigation Equipment
  - ☐ Use of VOR
  - ☐ Use of GPS
- ☐ Flight Director Usage
- ☐ Autopilot Usage
- ☐ Risk Management Associated with Holding Operations

Lesson Introduction

- ☐ Unpublished GPS Holding
  - ☐ Holds off of waypoints

COMPLETION STANDARDS:

The student will demonstrate the ability to create, load, and execute an unpublished GPS hold from instructions provided by an instructor or ATC.Aircraft control will be maintained to the standards of the Instrument Pilot ACS. Risk Management: In a scenario provided by the instructor identify a hazard, associated risk and select a course of action to deal with the risk. Autopilot Usage: In conjunction with the Flight Director use the autopilot to execute the holds. Recognize if the autopilot is unable to maintain airplane altitude, heading and/or course within ACS standards and disengage if required.

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
1.0					0.8			0.5	

STAGE VII FLIGHT LESSON 10 <u>DUAL-AIRPLANE</u>

LESSON OBJECTIVE:

Review at least two of the following holding procedures selected by the instructor. Both holds will be flown using the Flight Director. One hold will be flown using the autopilot. Apply risk management.

Lesson Review

- ☐ Full Panel Instrument
- ☐ Aircraft Navigation Equipment
  - ☐ Use of VOR
  - ☐ Use of GPS
- ☐ Flight Director Usage
- ☐ Autopilot Usage
- ☐ Holding Procedures (At Least Two)
  - ☐ DME Fix Holding
  - ☐ Localizer Holding
  - ☐ Published GPS Holding
  - ☐ Unpublished GPS Holding
- ☐ Risk Management Associated with Holding Operations

COMPLETION STANDARDS:

Execution of all tasks will meet the standards of the Instrument Rating – Airplane ACS.

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
									1.0

STAGE VII FLIGHT LESSON 11 <u>QUIZ</u>

LESSON OBJECTIVE:

Test the student's knowledge of this stage through a quiz.

CONTENT: The quiz will cover the following:

- ☐ Elements of a Holding Clearance
- ☐ Holding Procedures
  - ☐ Parts of a hold
  - ☐ Holding entries
  - ☐ Holding Speeds
  - ☐ Bank Angle During Holds
  - ☐ Timed hold
  - ☐ Wind correction
  - ☐ Inbound/Outbound
  - ☐ Crosswind
  - ☐ Time corrections
- ☐ Risk Management Associated with Holding Operation

COMPLETION STANDARDS:

The student must score 70% or higher and the instructor will review the questions missed with the student.

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
1.0					0.8			0.5	0.5

STAGE VII FLIGHT LESSON 12 <u>DUAL-STAGE CHECK</u>

LESSON OBJECTIVE:

Performance of Risk Management. Perform instrument flight deck check and postflight procedures. Execution of at least two of the holds indicated. Use of the flight director during all phases of flight and use of the autopilot to execute one of the holds.

CONTENT:

Lesson Review

- ☐ Full Panel Instrument
- ☐ Aircraft Navigation Equipment
  - ☐ Use of VOR
  - ☐ Use of GPS
- ☐ Flight Director Usage
- ☐ Autopilot Usage
- ☐ Elements of a Holding Clearance
- ☐ Holding Procedures (At Least Two)
  - ☐ DME Fix Holding
  - ☐ Localizer Holding
  - ☐ Published GPS Holding
  - ☐ Unpublished GPS Holding
- ☐ Risk Management Associated with Holding Operations

COMPLETION STANDARDS:

Execution of all tasks will meet the standards of the Instrument Rating - ACS.

INSTRUCTOR NOTES:

STAGE VIII

STAGE OBJECTIVE

During this stage the student will learn how to program and execute precision and non-precision approaches from various navigation sources, including ILS/LOC, VOR and RNAV/GPS. The student will continue to practice holding procedures and flight by reference to instruments.

STAGE COMPLETION STANDARD

At the completion of this stage the student will accomplish the tasks listed in the objectives. The student's knowledge, skill and risk management will be evaluated by an end of stage written quiz and flight check. Each lesson lists specific tasks and completion standards for those tasks.
Operational and Safety Considerations.

Circling Approaches. ATC will usually not permit an approach to an inactive runway with a circle to an active runway. Therefore, circling approaches will often have to be practiced at uncontrolled airports. The approach may have to be made opposite the direction of traffic taking off from the wind favored runway. Increased vigilance is required to avoid conflict with traffic.

Instructor Briefing for Arrival at the MAP in the Airplane: Only if the instructor says "Runway Environment in Sight" is the student allowed to transition to visual conditions. If the instructor says nothing the student will assume the runway environment is not in sight and execute the appropriate missed approach procedure.

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
							1.0	0.5	

STAGE VIII FLIGHT LESSON 1 <u>DUAL-AATD</u>

LESSON OBJECTIVE:

Learn how to read, interpret and brief instrument approach procedure plates. Learn how to execute nonprecision instrument approaches. Review holding procedure

CONTENT:

Lesson Review

- ☐ Holding Procedures
  - ☐ Missed Approach

Lesson Introduction

- ☐ Parts of an Instrument Approach Plate
- ☐ Briefing an Instrument Approach Plate
- ☐ Approach Clearances
- ☐ Aircraft Navigation Equipment
  - ☐ Loading Approach into GPS
- ☐ VOR Approaches
- ☐ Localizer Approaches
- ☐ RNAV(GPS) Approaches (LNAV)
- ☐ Missed Approach Procedures

COMPLETION STANDARDS:

Brief the Procedure: Correctly the brief the approach procedure. Clearance: Correctly interpret the approach clearance provided by the CFI. Execute the Approach: Altitude: +/-200 feet at IAF and stepdown fixes, MDA -0/+200 feet. Airspeed: +/-20 knots. Course: +/-7/8 CDI deflection outside and inside the FAF. Determine RNAV/GPS Navigator Performance: Determine what level of performance the navigator is providing – LNAV, LNAV/VNAV, LPV. Published Missed Approach: Execute at least one published missed approach procedure and hold entry.

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
							1.0	0.5	

STAGE VIII FLIGHT LESSON 2 <u>DUAL AATD</u>

LESSON OBJECTIVE:

Review non-precision approach procedures and learn how to execute a non-precision approach with failure of Primary Flight Instrument Indicators. Perform risk management associated with instrument approaches.

CONTENT:

Lesson Review

- ☐ Parts of an Instrument Approach Plate
- ☐ Briefing an Instrument Approach Plate
- ☐ Approach Clearances
- ☐ Aircraft Navigation Equipment
  - ☐ Loading Approach into GPS
- ☐ VOR Approaches
- ☐ RNAV(GPS) Approaches (LNAV)
- ☐ Missed Approach Procedures

Lesson Introduction

- ☐ Localizer Back-Course Approaches
- ☐ Partial Panel Approach Procedures
- ☐ Risk Management Associated with Instrument Approach Procedures

COMPLETION STANDARDS:

Risk Management: In a scenario provided by the instructor identify a hazard, associated risk and select a course of action to deal with the risk. Brief the Procedure: Correctly brief the approach procedure Clearance: Correctly interpret the approach clearance provided by the CFI. Execute the Approach: Altitude: +/-200 feet at IAF and stepdown fixes, MDA -0/+200 feet. Airspeed: +/-20 knots. Course: +/-7/8 CDI deflection outside and outside the FAF. Determine RNAV/GPS Navigator Performance: Determine what level of performance the navigator is providing. Published Missed Approach: Execute at least one published missed approach procedure and hold entry.

INSTRUCTOR NOTES:

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Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
1.0					0.8			0.5	

STAGE VIII FLIGHT LESSON 3 <u>DUAL AIRPLANE</u>

LESSON OBJECTIVE:

Transfer the tasks listed below, learned in the AATD, to the Airplane. Use the Flight Director to fly these approaches. Learn to receive and read back an ATC clearance for the route of flight. Land the airplane at the completion of the approach.

CONTENT:

Lesson Review

- ☐ Parts of an Instrument Approach Plate
- ☐ Briefing an Instrument Approach Plate
- ☐ Approach Clearances
- ☐ Non-Precision Approaches (At Least One)
  - ☐ VOR
  - ☐ Localizer
  - ☐ RNAV
- ☐ Risk Management Associated with Instrument Approach Procedures

Lesson Introduction

- ☐ Flight Director
- ☐ Advisory Glidepath of LNAV Approaches (+V)

COMPLETION STANDARDS:

Risk Management: In a scenario provided by the instructor identify a hazard, associated risk and select a course of action to deal with the risk.
Brief the Procedure: Correctly brief the approach procedure. Clearance: Correctly interpret and read back the route and approach clearance. Execute the Approach: Altitude: +/-200 feet, MDA -0/+200 feet. Airspeed: +/-20 knots. Course: +/-7/8 CDI deflection. Flight Director: Correctly program the flight director for the approach. Missed Approach: Execute the alternate or published missed approach procedure.

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
1.0					0.8			0.5	

STAGE VIII FLIGHT LESSON 4 <u>DUAL-AIRPLANE</u>

LESSON OBJECTIVE:

Review execution of non-precision approaches in the Airplane. Use the Flight Director to fly these approaches. Continue to receive and read back an ATC clearance for the route of flight. Land the airplane at the completion of the approach.

CONTENT:

Lesson Review

- ☐ Parts of an Instrument Approach Plate
- ☐ Briefing an Instrument Approach Plate
- ☐ Approach Clearances
- ☐ Non-Precision Approaches (At Least One)
  - ☐ VOR
  - ☐ Localizer
  - ☐ RNAV
- ☐ Partial Panel Approach Procedures
- ☐ Risk Management Associated with Instrument Approach Procedures

COMPLETION STANDARDS:

Risk Management: In a scenario provided by the instructor identify a hazard, associated risk and select a course of action to deal with the risk. Brief the Procedure: Correctly brief the approach procedure. Clearance: Correctly interpret and read back the route and approach clearance. Execute the Approach: Altitude: +/-100 feet at IAF and stepdown fixes, MDA -0/+100 feet. Airspeed: +/-10 knots. Course: +/-3/4 CDI deflection inside and outside the FAF. Flight Director: Correctly program the flight director for the approach. Missed Approach: Execute the alternate or published missed approach procedure. Landing: Transition from instrument to visual conditions and land at the completion of the approach using normal pitch/bank attitudes

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
							1.0	0.5	

STAGE VIII FLIGHT LESSON 5 <u>DUAL-AATD</u>

LESSON OBJECTIVE:

Learn how to execute precision/precision-like instrument approaches.

CONTENT:

Lesson Review

- ☐ Risk Management Associated with Instrument Approach Procedures
- ☐ Missed Approach Procedures
- ☐ Partial Panel Approach Procedures

Lesson Introduction

- ☐ ILS Approaches
- ☐ RNAV(GPS) Approaches (LPV or LNAV/VNAV)

COMPLETION STANDARDS:

Risk Management: In a scenario provided by the instructor identify a hazard, associated risk and select a course of action to deal with the risk.
Brief the Procedure: Correctly brief the approach procedure. Clearance: Correctly interpret and read back the approach clearance. Execute the Approach: Altitude: +/-200 feet at IAF and stepdown fixes, DA -0/+200 feet. Airspeed: +/-20 knots. Course and vertical profile: +/-7/8 CDI deflection inside and outside the FAF. Missed Approach: Execute at least one published missed approach procedure and hold entry.

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
							1.0	0.5	

STAGE VIII FLIGHT LESSON 6 <u>DUAL-AATD</u>

LESSON OBJECTIVE:

Review execution of precision/precision-like instrument approaches.

CONTENT:

Lesson Review

- ☐ Risk Management Associated with Instrument Approach Procedures
- ☐ ILS Approaches
- ☐ RNAV(GPS) Approaches (LPV or LNAV/VNAV)
- ☐ Missed Approach Procedures
- ☐ Partial Panel Approach Procedures

Lesson Introduction

- ☐ Vectors-to-Final versus Full Procedure
  - ☐ Course Reversals (At least One)
  - ☐ Procedure Turn
  - ☐ Hold-In-Lieu
  - ☐ DME Arc
  - ☐ Teardrop

COMPLETION STANDARDS:

Risk Management: In a scenario provided by the instructor identify a hazard, associated risk and select a course of action to deal with the risk. Brief the Procedure: Correctly brief the approach procedure. Clearance: Correctly interpret and read back the approach clearance. Execute the Approach: Altitude: +/-200 feet at IAF and stepdown fixes, DA -0/+200 feet. Airspeed: +/-20 knots. Course and vertical profile: +/-7/8 CDI deflection inside and outside the FAF. Missed Approach: Execute at least one published missed approach procedure and hold entry.

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
1.0					0.8			0.5	

STAGE VIII FLIGHT LESSON 7 <u>DUAL-AIRPLANE</u>

LESSON OBJECTIVE:

Transfer the tasks listed below, learned in the AATD, to the Airplane. Use the Flight Director to fly these approaches. Receive and read back an ATC clearance for the route of flight. Land the airplane at the completion of the approach.

CONTENT:

Lesson Review

- ☐ Risk Management Associated with Instrument Approach Procedures
- ☐ Precision/Precision-Like Approaches (One or More)
  - ☐ ILS
  - ☐ RNAV
  - ☐ Full Procedure
  - ☐ Vectors to Final
  - ☐ Course Reversals
- ☐ Missed Approach Procedures

COMPLETION STANDARDS:

Risk Management: In a scenario provided by the instructor identify a hazard, associated risk and select a course of action to deal with the risk. Brief the Procedure: Correctly brief the approach procedure. Clearance: Correctly interpret and read back the approach clearance. Execute the Approach: Altitude: +/-200 feet at IAF and stepdown fixes, DA -0/+200 feet. Airspeed: +/-20 knots. Course and vertical profile: +/-7/8 CDI deflection inside and outside the FAF. Flight Director: Correctly program the flight director for the approach. Missed Approach: Execute alternate or published missed approach procedure. Landing: Transition from instrument to visual conditions and land at the completion of the approach using normal pitch/bank attitudes

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
1.0					0.8			0.5	

STAGE VIII FLIGHT LESSON 8 <u>DUAL-AIRPLANE</u>

LESSON OBJECTIVE:

Increase proficiency in execution of precision approaches using the flight director. Learn to use the autopilot to execute a precision approach.

CONTENT:

Lesson Review

- ☐ Risk Management Associated with Instrument Approach Procedures
- ☐ Precision/Precision-Like Approaches (One or More)
  - ☐ ILS
  - ☐ RNAV
  - ☐ Full Procedure
  - ☐ Vectors to Final
  - ☐ Course Reversals
- ☐ Missed Approach Procedures
- ☐ Use of Flight Director
- ☐ Partial Panel Approach Procedures

Lesson Introduction

- ☐ Use of Autopilot

COMPLETION STANDARDS:

Risk Management: In a scenario provided by the instructor identify a hazard, associated risk and select a course of action to deal with the risk.
Execute the Approach: Altitude: +/-100 feet at IAF and stepdown fixes, DA -0/+100 feet. Airspeed: +/-10 knots. Course and vertical profile: +/-3/4 CDI deflection inside and outside the FAF. Flight Director: Correctly program the flight director for the approach. Autopilot Usage: In conjunction with the Flight Director use the autopilot to execute one approach. Recognize if the autopilot is unable to maintain airplane attitude, heading and/or course within ACS standards and disengage it if required.
Missed Approach: Execute alternate or published missed approach procedure. Landing: Transition from instrument to visual conditions and land at the completion of the approach using normal pitch/bank attitudes

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
1.0					0.8			0.5	

STAGE VIII FLIGHT LESSON 9 <u>DUAL-AIRPLANE</u>

LESSON OBJECTIVE:

Learn to execute a circling approach at the completion of either a non-precision or precision approach. Gain proficiency in risk management and flight director usage and conducting an approach with loss of primary flight instrument indicators.

CONTENT:

Lesson Review

- ☐ Risk Management Associated with Instrument Approach Procedures
- ☐ Flight Director Usage
- ☐ Autopilot Usage
- ☐ Partial Panel Approach Procedures

Lesson Introduction

- ☐ Circling Approaches (One or More)
  - ☐ From a Precision Approach
  - ☐ From a Non-Precision Approach

COMPLETION STANDARDS:

Risk Management: In a scenario provided by the instructor identify a hazard, associated risk and select a course of action to deal with the risk. Execute the Approach: Altitude: +/-100 feet at IAF and stepdown fixes, Circling MDA -0/+100 feet. Airspeed: +/-10 knots. Course and/or vertical profile: +/-3/4 CDI deflection inside and outside the FAF. Flight Director: Correctly program the flight director for the approach. Autopilot Usage: In conjunction with the Flight Director use the autopilot to execute one approach. Recognize if the autopilot is unable to maintain airplane attitude, heading and/or course within ACS standards and disengage it if required. Loss of Primary Flight Instrument Indicators: Use Standby Flight Display Instruments to execute the nonprecision approach. Landing: Upon reaching circling minimum altitude transition from instrument to visual conditions, locate the runway, maintain visual contact with the runway, at an uncontrolled airport enter the standard or non-standard traffic pattern as appropriate; at a controlled airport fly the pattern as directed by ATC, execute the landing using normal pitch and bank attitudes.

INSTRUCTOR NOTES:

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Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
1.0					0.8			0.5	

STAGE VIII FLIGHT LESSON 10 <u>DUAL-AIRPLANE</u>

LESSON OBJECTIVE:

Review risk management. Review flight director usage. Review precision and non-precision instrument approaches, loss of primary flight instrument indicators/use of Standby flight instrument indicators to conduct a non-precision approach. Review circling approach procedures. Review missed approach procedures and landing at the completion of the approach.

CONTENT:

Lesson Review

- ☐ ILS Approaches
- ☐ VOR Approaches
- ☐ Localizer Approaches
- ☐ GPS Approaches
- ☐ Circling Approaches
- ☐ Missed Approach Procedures
- ☐ Partial Panel Approach Procedures

COMPLETION STANDARDS:

All tasks will be completed to the standards of the Instrument Rating - Airplane ACS

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
									1.0

STAGE VIII FLIGHT LESSON 11 <u>QUIZ</u>

LESSON OBJECTIVE:

Test the student's knowledge of this stage through a quiz.

CONTENT: The quiz will cover the following area:

- ☐ Parts of an Instrument Approach Plate
- ☐ Symbology of an Instrument Approach Plate
- ☐ Approach Clearances
- ☐ Non-Precision Instrument Approaches
- ☐ Precision Instrument Approaches
- ☐ Circling Approaches

COMPLETION STANDARDS:

The student must score 70% or higher and the instructor will review the questions missed with the student.

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
1.0					0.8			0.5	0.5

STAGE VIII FLIGHT LESSON 12 <u>DUAL-STAGECHECK</u>

LESSON OBJECTIVE:

The student will be evaluated on the tasks listed below:

CONTENT:

Lesson Review (One or more procedures as selected by the instructor)

- ☐ Parts of an Instrument Approach Plate
- ☐ Symbology of an Instrument Approach Plate
- ☐ Approach Procedures
- ☐ Risk Management Associated with Instrument Approach Procedures
- ☐ Approach Clearances
- ☐ Briefing an Instrument Approach Plate
- ☐ Approaches (One or more approaches as selected by the instructor)
    - ☐ ILS
    - ☐ VOR
    - ☐ Localizer
    - ☐ GPS
    - ☐ Circling
- ☐ Missed Approach Procedures
- ☐ Partial Panel Approach Procedures
- ☐ Flight Director Usage
- ☐ Autopilot Usage

COMPLETION STANDARDS:

The student will complete all tasks to the standards of the Instrument Rating - Airplane ACS.

INSTRUCTOR NOTES:

STAGE IX

STAGE OBJECTIVE

The purpose of stage IX is to introduce the student to IFR cross-country procedures and to increase the student's proficiency to the level required of an instrument rated pilot.

STAGE COMPLETION STANDARD

At the completion of Stage IX, the student must be able to demonstrate all IFR flight maneuvers and procedures at the proficiency level of an instrument rated pilot, as outlined in the current FAA Instrument Rating – Airplane Airman Certification Standards.

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
2.7			2.7		2.5			0.5	

STAGE IX FLIGHT LESSON 1 <u>DUAL - CROSS COUNTRY - INSTRUMENT</u>

LESSON OBJECTIVE:

The student will plan and conduct an IFR cross country flight to a destination greater than 50 nautical miles from the departure airport. The student will learn IFR departure, enroute and arrival procedures.

CONTENT:

Lesson Review

- ☐ Instrument Approaches
- ☐ Flight Director Usage
- ☐ Autopilot Usage

Lesson Introduction

- ☐ Risk Management Associated with Instrument Cross Country Procedures
- ☐ Pilot Qualifications
- ☐ Weather Information
- ☐ Cross Country Flight Planning
- ☐ Filing an IFR Cross Country Flight Plan
- ☐ ATC Cross Country Clearance
- ☐ Departure Procedures
- ☐ Enroute Procedures
- ☐ Arrival Procedures
- ☐ Emergency Operations – Loss of Communications
- ☐ Aircraft Systems Related to IFR Operations – Deice/Anti-Ice Equipment

COMPLETION STANDARDS:

Risk Management: In a scenario provided by the instructor, identify a hazard associated with IFR cross country flight, the associated risk and course of action to deal with the risk. Flight Director: Demonstrate proper flight director usage during all phases of flight. Autopilot Usage: Demonstrate autopilot usage to ease workload during all phases of flight. Use the autopilot to execute one instrument approach.
Instrument Approaches: Execute at least one precision and one non-precision approach procedure to the standards of the Instrument Rating - Airplane ACS.
Pilot Qualifications: In a scenario provided by the instructor, determine if a pilot is current to make the flight and if not what actions are required to regain currency.Weather Information: Obtain a standard weather briefing, determine weather hazards that could impact the flight, determine if destination alternates is required. Cross Country Flight Planning: Prepare a cross country flight plan using correct performance data for the airplane. Determine if the airplane can meet climb performance required by departure and/or obstacle avoidance procedures. Correctly compute magnetic headings, estimated time enroute to primary destination and alternate (if required), fuel usage and whether fuel remaining meets minimum fuel reserve requirements. IFR Flight Plan: Correctly file an IFR Flight Plan. ATC Cross Country Clearance: Correctly request, write down and read back and ATC IFR cross country clearance. Explain additional information provided by ATC if departure is from an uncontrolled airport. Load the route of flight into the GPS Navigator. Departure Procedure: Execute at least one departure procedure to the standards of the Instrument Rating Airplane ACS Enroute Procedures: Use Flight Information Broadcast (FIS-B) to monitor weather along the route of flight. Contact AFSS to update weather information. In a scenario provided by the instructor determine if a report to ATC is required and simulate making the report. Arrival Procedure: Execute at least one arrival procedure to the standards of the Instrument Rating Airplane
ACS. Loss of Communications: In a scenario provided by the instructor to determine the correct course of action in the event communication with ATC is lost. Aircraft Systems Related to IFR Operations: In a scenario provided by the instructor, determine suitable course of action for inadvertent icing encounter. Simulate activation of available deice/anti-ice equipment on the airplane

INSTRUCTOR NOTES:

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Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
4.0			4.0		3.6			0.5	

STAGE IX FLIGHT LESSON 2 DUAL - CROSS COUNTRY - INSTRUMENT

LESSON OBJECTIVE:

Increase the student's proficiency in instrument cross country procedures by conducting an instrument cross country flight. The flight must be a distance of at least 250 nautical miles in length along airways or ATC-directed routing with one segment of the flight consisting of at least a straight-line distance of 100 nautical miles between airports and involves three different kinds of approaches with the use of navigation systems.

CONTENT:

Lesson Review

- ☐ Risk Management Associated with Instrument Cross Country Procedures
- ☐ Instrument Approaches
- ☐ Pilot Qualifications
- ☐ Flight Director Usage
- ☐ Autopilot Usage
- ☐ Weather Information
- ☐ Cross Country Flight Planning
- ☐ Filing an IFR Cross Country Flight Plan
- ☐ ATC Cross Country Clearance
- ☐ Departure Procedures
- ☐ Enroute Procedures
- ☐ Arrival Procedures
- ☐ Emergency Operation – Loss of Communications
- ☐ Aircraft Systems Related to IFR Operations – Deice/Anti-Ice Equipment

COMPLETION STANDARDS:

All tasks will be completed to the standards of the Instrument Rating – Airplane ACS.

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
1.0					0.8			0.5	

STAGE IX FLIGHT LESSON 3 <u>DUAL-AIRPLANE</u>

LESSON OBJECTIVE:

Review the tasks listed below to ensure the student is prepared for the end of course stage check.

CONTENT:

Lesson Review

- ☐ Recovery from Unusual Attitudes
- ☐ Aircraft Navigation Equipment
  - ☐ Use of VOR
  - ☐ Use of GPS
- ☐ Holding Procedures
- ☐ Approaches (One or more approaches as selected by the instructor)
  - ☐ ILS
  - ☐ VOR
  - ☐ Localizer
  - ☐ GPS
  - ☐ Circling
- ☐ Landing from an Instrument Approach

COMPLETION STANDARDS:

All tasks will be completed to the standards of the Instrument Rating – Airplane ACS.

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
1.0					0.8			0.5	

STAGE IX FLIGHT LESSON 4 <u>DUAL-AIRPLANE</u>

LESSON OBJECTIVE:

Review the tasks listed below to ensure the student is prepared for the end of course stage check.

CONTENT:

Lesson Review

- ☐ Recovery from Unusual Attitudes
- ☐ Aircraft Navigation Equipment
  - ☐ Use of VOR
  - ☐ Use of GPS
- ☐ Holding Procedures
- ☐ Autopilot Usage
- ☐ Approaches (One or more approaches as selected by the instructor)
  - ☐ ILS
  - ☐ VOR
  - ☐ Localizer
  - ☐ GPS
  - ☐ Circling
- ☐ Partial Panel Approach Procedures
- ☐ Landing from an Instrument Approach

COMPLETION STANDARDS:

All tasks will be completed to the standards of the Instrument Rating – Airplane ACS.

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
1.5					1.0			0.5	

STAGE IX FLIGHT LESSON 5 <u>DUAL-AIRPLANE</u>

LESSON OBJECTIVE:

This lesson is the final review of Instrument flight procedures. The objective is to determine the student's preparedness for the End of Course stage check. If possible, the learner will fly with a flight instructor from the Aviation Department other than their regular flight instructor.

CONTENT:

Lesson Review (As selected by the Instructor)

- ☐ Recovery from Unusual Attitudes
- ☐ Aircraft Navigation Equipment
  - ☐ Use of VOR
  - ☐ Use of GPS
- ☐ Holding Procedures
- ☐ Autopilot Usage
- ☐ Approaches (One or more approaches as selected by the instructor)
  - ☐ ILS
  - ☐ VOR
  - ☐ Localizer
  - ☐ GPS
  - ☐ Circling
- ☐ Partial Panel Approach Procedures
- ☐ Landing from an Instrument Approach

COMPLETION STANDARDS:

All tasks will be completed to the standards of the Instrument Rating – Airplane ACS.

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
									1.0

STAGE IX FLIGHT LESSON 6 <u>QUIZ</u>

LESSON OBJECTIVE:

Test the student's knowledge of this stage through a quiz.

CONTENT: The quiz will cover the following area:

- ☐ Preflight Preparation – Pilot Qualifications
- ☐ Preflight Preparations – Weather Information
- ☐ Preflight Preparations – Cross Country Flight Planning
- ☐ Navigation Systems – Departure, Enroute and Arrival Operations
- ☐ Preflight Procedures – Aircraft Systems Related to IFR Operations
- ☐ Emergency Operations – Loss of Communications

COMPLETION STANDARDS:

The student must score 70% or higher and the instructor will review the questions missed with the student.

INSTRUCTOR NOTES:

Dual	Solo	Dual Night	Dual XC	Solo XC	Dual Inst.	Night LD.	AATD	Pre Post	GI
1.5					1.3			0.5	1.5

STAGE IX FLIGHT LESSON 7 <u>EOC-STAGECHECK</u>

LESSON OBJECTIVE:

The student will demonstrate satisfactory knowledge, risk management and skills in the tasks specified below from the Instrument Rating Airplane Airman Certification Standards. This lesson is the final stage check conducted by the Chief or Assistant Chief Flight Instructor or Check Instructor approved by the FSDO. This stage check must be equal in scope, depth and difficulty to the practical test prescribed by the current version of the Instrument Airplane Airman Certification Standards. It will be conducted using a plan of action to evaluate the following tasks. A minimum of one knowledge, on risk management and one skill criterion will be evaluated for each task. Prior to the test the evaluator will check for updates to the Instrument Rating Airplane Airman Certification Standards and incorporate any changes into the plan of action.

PRE-TEST PLANNING:

The evaluator will check for updates to the Airman Certification Standards. Any changes will be incorporated into the evaluation. The evaluator will list the ACS codes missed on the knowledge test and annotate these codes on the KN or RM line for each task or groups of tasks in the ground portion of the lesson plan. These items must be evaluated as part of the practical test.

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CONTENT:

Cross Country Flight Scenario. The applicant will plan an instrument cross country flight from OUN to an airport outside of the OKC area into Class C or B airspace. The applicant will use real world weather in the flight planning process. In both the ground and flight portions of the test the evaluator will present the applicant with different situations within the scenario (weather, equipment failure, ATC requests, medical issues etc.) In the process of demonstrating the KN, RM and SK to deal with these situations as many of the tasks as possible will be evaluated. Any remaining tasks will be evaluated outside the context of the scenario. In some cases tasks are grouped together to facilitate evaluation as part of a scenario. The evaluator will make note of unsatisfactory performance on the KN, RM or SK lines as appropriate.

GROUND PORTION OF PRACTICAL TEST

All SK elements must be evaluated. At least one KN and one RM element from each task must be evaluated. If an element was missed on the knowledge test evaluation of this element may count as the one element to be evaluated. At the evaluator's discretion more than one element may be evaluated.

- ☐ AOI: Preflight Preparation
  - ☐ Pilot Qualifications – AOI, Task A
  - ☐ Weather Information – AOI, Task B
  - ☐ Cross Country Flight Planning – AOI, Task C
  - ☐ AOII: Preflight Procedures
  - ☐ Aircraft Systems Related to IFR Operations – AOII, Task A
- ☐ Aircraft Flight Instruments and Navigation Systems – AOII, Task B
  - ☐ Instrument Flight Deck Check – AOII, Task C
- ☐ AOIII: Air Traffic Control (ATC) Clearances and Procedures
  - ☐ Compliance with Air Traffic Control Clearances – AOIII, Task A
  - ☐ Holding Procedures – AOIII, Task B
- ☐ AOIV: Flight by Reference to Instruments
  - ☐ Instrument Flight – AOIV, Task A
  - ☐ Recovery from Unusual Attitudes – AOIV, Task B

- ☐ AOV: Navigation Systems
  - ☐ Intercepting and Tracking Navigational Systems and Arcs – AOV, Task A
  - ☐ Departure, Enroute and Arrival Procedures – AOV, Task B

- ☐ AOVI: Instrument Approach Procedures
  - ☐ Non-Precision Approach – AOVI Task A
  - ☐ Precision Approach – AO VI Task B
  - ☐ Missed Approach – AOVI Task C
  - ☐ Circling Approach – AO VI Task D
  - ☐ Landing from an Instrument Approach - AOVI Task E

- ☐ AOVII: Emergency Operations
  - ☐ Loss of Communications – AOVII Task A
  - ☐ Approach with Loss of Primary Flight Instrument Indicators
  - ☐ AOVII Task D

- ☐ AOVIII: Postflight Procedures
  - ☐ Checking Instruments and Equipment – AOVIII Task A

COMPLETION STANDARDS:
Demonstrate proficiency in accordance with the Instrument Rating - Airplane ACS.

INSTRUCTOR NOTES: