I, _________________________________, have acquired and have in my possession a copy of the training course outline, training syllabus, and safety procedures and practices for AVIA 3572, Instrument Rating Course.

______________________________
Student Signature

______________________________
Flight Instructor Signature

______________________________
Chief Flight Instructor Signature
UNIVERSITY OF OKLAHOMA
DEPARTMENT OF AVIATION
INSTRUMENT RATING COURSE

This course fulfills the requirements of 14 CFR, Section 141, Appendix C for adding an instrument rating to a pilot certificate with airplane category, single engine land class rating.

**COURSE OBJECTIVE:** The student will obtain the knowledge, skill, and aeronautical experience necessary to meet the requirements for adding an instrument rating to a pilot certificate with an airplane category rating and single-engine land class rating.

**COURSE COMPLETION STANDARD:** The student will demonstrate through written tests, oral tests, flight tests, and show through appropriate records that the knowledge, skill, and experience requirements necessary to obtain an instrument rating have been met. The specific requirements for each test and stage check are described in the appropriate syllabus lesson. At the completion of the ground school the student will pass the end of course test with a score of 70%. This test is the equivalent of the FAA instrument rating knowledge test. At the completion of flight training the student will pass the Instrument Rating practical test, based on the current Instrument Rating Practical Test Standards (PTS).

**AIRPORT:** Max Westheimer Airport is the operations base for training in this course. Max Westheimer Airport has a hard surface runway and meets the requirements of 14 CFR, Section 141.38 for day and night operation. Fuel is available from 7:00 A.M. to 10:00 P.M. daily. Maintenance is available from 6:30 A.M. to 3:00 P.M. Monday through Friday and at other times on call. Training will originate at Max Westheimer Airport.

**AIRCRAFT:** The aircraft to be used in this course of training is the PA28-161. It meets the requirements of 14 CFR, Section 141.39. Airplanes used for instrument training are equipped for IFR as specified in 14 CFR, Section 91.205. Radio equipment will consist of at least one VHF transceiver and at least one VOR receiver. A Precision Flight Controls AATD is also used. They meet the requirements of 14 CFR, Section 141.41.
CHIEF FLIGHT INSTRUCTOR: The Chief Flight Instructor will meet the requirements of 14 CFR, Section 141.35. (S)he must hold at least a commercial pilot certificate with an airplane category, single engine land rating and airplane instrument rating. In addition, (s)he must hold a flight instructor certificate with an airplane single and instrument airplane ratings and have at least a second class medical certificate. See Appendix A of this Training Course Outline for Chief Flight Instructor designation.

ASSISTANT CHIEF FLIGHT INSTRUCTOR: The Assistant Chief Flight Instructor will meet the requirements of 14 CFR, Section 141.36. (S)he must hold at least a commercial pilot certificate with an airplane category, single engine land rating and airplane instrument rating. In addition, (s)he must hold a flight instructor certificate with an airplane single and instrument airplane ratings and have at least a second class medical certificate. See Appendix A of this Training Course Outline for Assistant Chief Flight Instructor designation.

CHECK INSTRUCTORS: Check instructors will meet the requirements of 14 CFR, Section 141.37. S(he) must hold at least a commercial pilot certificate with an airplane category, single engine land rating and airplane instrument rating. In addition, (s)he must hold a flight instructor certificate with airplane single and instrument airplane ratings and have at least a second class medical certificate.

FLIGHT INSTRUCTORS: Each flight instructor must hold at least a commercial pilot certificate with an airplane category, single engine land rating and airplane instrument rating. In addition, (s)he must hold a flight instructor certificate with airplane single and instrument airplane ratings and have at least a second class medical certificate.

CHIEF GROUND INSTRUCTOR: The Chief Ground Instructor will meet the requirements of 14 CFR, Section 141.35(e). See Appendix A of this Training Course Outline for Chief Ground Instructor designation.

ASSISTANT CHIEF GROUND INSTRUCTOR: The Assistant Chief Ground Instructor will meet the requirements of 14 CFR, Section 141.36(e). See Appendix A of this Training Course Outline for Assistant Chief Ground Instructor designation.

GROUND INSTRUCTORS: Each instructor used for ground training must hold a flight instructor or instrument ground instructor certificate for this course of training.
OFFICE AND CLASSROOM FACILITIES USED FOR AVIATION STUDENTS: The office and classroom facilities used for the training of aviation students of the University of Oklahoma are described in Appendix D of this Training Course Outline.

COURSE ENROLLMENT: You must hold at least a private pilot certificate with an airplane, single engine land rating and have at least a third class medical certificate prior to enrolling in the flight portion of the instrument rating course.

REQUIREMENTS FOR GRADUATION: To obtain an instrument rating, you must be able to read, speak, and understand the English language and have a valid FAA third-class medical certificate and be at least 17 years of age at the completion of the course. You must complete the lessons in the syllabus and satisfy the requirements described in the Course Completion Standard on the first page.

LESSON DESCRIPTION AND STAGES OF TRAINING: Each lesson is fully described within the syllabus, including the objectives, standards, and measurable units of accomplishment and learning for each lesson. You are expected to complete at least one stage approximately every 90 days. The objectives and standards of each stage are described within the syllabus.

COURSE POLICY: The course policies for this course of training are outlined in Appendix B of this Training Course Outline.

TESTS AND CHECKS: The syllabus incorporates stage checks in accordance with 14 CFR, Section 141, Appendix C. These checks are given by the Chief, or designated Assistant Chief Flight Instructor, or Check Instructor at the end of each stage. The student will complete the appropriate stage exams, pilot briefings, and final examinations that are described within the syllabus. The final stage check will be conducted by the Chief or Assistant Chief Flight Instructor and will be conducted in accordance with the current Instrument Rating Practical Test Standards and will be at least equal in scope, depth, and difficulty to that practical test.
DISPATCH PROCEDURES - The provisions of 14 CFR, Section 91.103 will be met prior to aircraft dispatch. The instructor will provide a preflight briefing to the student. The instructor's signature on the syllabus sheet for that lesson constitutes permission to dispatch the aircraft. The student will check the scheduling clipboard to determine which aircraft is assigned for the flight and complete the information on the Aircraft Sign Out Sheet, the Plastic Flight Plan form and the Aircraft Information Sheet in the aircraft checklist binder. A flight plan will be filed with an Automated Flight Service Station for all cross country flights. Aircraft keys are kept in a lock box in the dispatch area and will be issued upon completion of the above procedures.

STARTING PROCEDURES - All aircraft will be started within the ramp area of the Department of Aviation unless otherwise designated by the Chief Flight Instructor or his designee. All starting procedures will comply with the procedures stated in the Pilots Operating Handbook for that aircraft.

TAXIING PROCEDURES - Taxi on yellow depicted taxi routes and at a slow and reasonable speed (use 10 miles per hour as a guide). Spacing between aircraft on taxi routes will be a minimum of two ship lengths. During the day, operate the anti-collision lights while taxiing. Use position lights and the landing light at night. To minimize the chance of runway incursion, read back taxi instructions, particularly hold short, position and hold, runway crossing and takeoff clearances. When obtaining complex taxi clearances at unfamiliar airports write down the clearance, have an airport diagram available and request progressive taxi if needed.

FIRE PRECAUTIONS - During fueling operations the aircraft involved will be unoccupied. Fire extinguishers will be present when fueling is in progress. In the event of aircraft fire during engine start or taxiing, follow the emergency procedures in the aircraft POH. If there is any doubt about whether emergency procedures are working to extinguish the fire, evacuate the aircraft immediately.

REDISPATCH PROCEDURES – Given that all flight lessons have an instructor on board, in the event of a diversion and landing at an unscheduled destination, the instructor may continue the lesson without notification to the aviation department. The instructor will notify the aviation department at 405-325-7231 (Long Distance in-state toll free 1-800-522-0772, ext 7231) or the OU mobile phone 405-919-6319, if the unscheduled stop will delay the return of the aircraft to the point of impacting the flight schedule.
UNIVERSITY OF OKLAHOMA
DEPARTMENT OF AVIATION
INSTRUMENT RATING COURSE
RULES OF OPERATION

AIRCRAFT DISCREPANCIES: Upon noticing a discrepancy the pilot in command will take the following actions:

- Place the plastic "Maintenance Required" sign in the windshield of the aircraft (this sign is in a loose leaf binder in the aircraft).

- Complete Form OUAVMAIN #2 (copies of this form are in a loose leaf binder in the aircraft). When filling out the "Maintenance Problem" section, be as specific as possible. Provide the top copy to the mechanics in the hangar and place the yellow copy on the Aircraft Sign Out Sheet. If the mechanics are not available, place the top copy of the form in the maintenance in-box in the dispatch section. If the main office is closed, put both copies of the form in the envelope slot in the hangar door.

- Upon returning to the dispatch area, turn the plastic flight plan over so that the words "No Fly" are displayed.
  
  Note: If the main office is locked and this can't be done, the "Maintenance Required" sign in the aircraft serves as notification that the aircraft is not airworthy.

- Notify the director, the chief flight instructor or one of the assistant chief flight instructors as soon as possible.

APPROVAL FOR RETURN OF AIRCRAFT TO SERVICE: The mechanics will take whatever corrective actions are required to return the aircraft to service. Upon returning the aircraft to service the mechanics will place the "Maintenance Required" sign back in the lose leaf notebook and notify the main office. At that time the plastic flight plan will be turned back over and the yellow copy of OUAVMAIN #2 placed in the mechanics in-box. If the discrepancy can't be corrected immediately, but the mechanics determine the aircraft is still airworthy, this information will be noted in the "Maintenance Performed" section along with any required operating limitations due to the discrepancy. Inoperative equipment will be removed or deactivated and placarded IAW 14 CFR, Section 91.213. The aircraft may then be returned to service and flown within any operating limitations noted.

SECURING AIRCRAFT - The pilot in command is responsible for securing aircraft on the ramp. Only aviation department personnel and contract personnel from the FBO may hangar aircraft. Students may assist in hangaring aircraft under the supervision of these personnel. All university aircraft will be secured with tie-down ropes or chocks while unattended on the Department of Aviation ramp. On cross country flights, the pilot in command will make tie-down arrangements with the local FBO for securing the aircraft. At no time will an aircraft be left unattended without it being secured by wheel chocks or tie-down ropes. When returning aircraft to the ramp in front of the terminal, solo students will not park the aircraft in the first row by the fence.

AIRCRAFT AVOIDANCE - No person may operate an aircraft so close to another aircraft as to create a collision hazard either on the ground or in the air. At all times, the Pilot-in-Command will be responsible for, and actively use "See and Avoid" procedures as described in the AIM, Chapter 7, Section 5 and comply with the right of way rules specified in 14 CFR, Section 91.113.

FUEL RESERVES - At no time will a department aircraft depart on a flight without the minimum fuel required by 14 CFR, Section 91.151 for VFR flights or 91.169 for IFR flights.
MINIMUM ALTITUDES - Minimum altitude for instrument training under VFR with the exception of landing practice is 600' AGL or higher if the minimum altitude applicable in 14 CFR, Section 91.119 is higher than 600' AGL. All simulated emergency landings will be terminated at 500' AGL minimum. Minimum altitudes for IFR operations will be in accordance with 14 CFR, Sections 91.175 and 91.177.

PRACTICE AREAS - The University utilizes several practice areas for flight training. These areas are depicted in Appendix C of this Training Course Outline.

WEATHER MINIMUMS
Instrument training under VFR will be in accordance with the basic VFR weather minimums in 14 CFR, Section 91.155. For IFR operations, minimum weather for landings will be in accordance with 14 CFR, Section 91.175. For takeoffs, the ceiling and visibility will be equal to or greater than the lowest Category A aircraft instrument approach minimums at the departure airport. If prevailing winds dictate a circling procedure, the lowest Category A circling minimums will apply. Determination of the requirement for an alternate airport will be in accordance with 14 CFR, Section 91.169.

WIND LIMITS:
Dual: Maximum 35 knots - Maximum 15 knots gust spread
Crosswind: Crosswind limits will not exceed those specified by the Pilots Operating Handbook for the aircraft to be flown.

AIRCRAFT CHECKLIST/KEY TURN IN: After completing the flight and securing the aircraft, the student will record the hobbs time on the Aircraft Information Sheet and return the aircraft checklists and keys to the dispatch area. Give the keys to a staff member for return to the lock box and complete the information on the Aircraft Sign Out Sheet. Return the syllabus sheet to the instructor for further processing.

ATTENDANCE - TARDINESS:
Students are expected to attend all scheduled ground and flight training lessons. In the event of sickness or accident, call the Aviation Department at 325-7231. Do not make a determination of attendance due to weather. If in doubt, call the Aviation Department. Excessive absences or tardiness, are grounds for removal from the course.
## INSTRUMENT PILOT CERTIFICATION COURSE
### STAGE VI, VII, VIII, IX
#### LESSON TIME ALLOCATION

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* The individual lesson times shown on this table are for instructor/student guidance only.
** These are the minimum times required in each flight category for course completion.

Dual=Dual in PA28-161
IDL=Instrument dual in PA 28-161
DXC=Dual Cross Country
AATD
STAGE OBJECTIVE

The emphasis of this stage is on IFR flight operations. The student will learn precise airplane attitude control by instrument reference and radio navigation.

COMPLETION STANDARD

At the completion of this stage the student will demonstrate precise airplane attitude control by instrument reference only. This will include the use of full and partial panel reference. In addition, the student will demonstrate accurate radio navigation.
STAGE VI FLIGHT LESSON 1 DUAL – AIRPLANE

LESSON OBJECTIVE: During this lesson, the student is provided with an in-depth review of takeoff and landing procedures and attitude instrument flying with special emphasis on learning precise aircraft control by instrument reference.

CONTENT:
Lesson Review
- Preflight Preparations and Procedures
  - Certificate and Documents
  - Aircraft Logbooks
  - Aircraft Performance
  - Weight and Balance
- Aircraft Flight Instruments and Navigation Equipment Required for IFR Flight
  - Operation of Airplane Systems
  - Use of Checklists
  - Engine Starting
  - Radio Communications and ATC Light Signals
  - Cockpit Management
- Taxiing
  - Normal
  - Crosswind
- Pretakeoff Check
- Takeoff and Landing
  - Normal
  - Traffic Patterns
- Collision Avoidance Procedures
- Full Panel Instrument
  - Straight and Level
  - Standard-Rate Turns
  - Constant Airspeed Climbs
  - Climbing Turns
  - Constant Airspeed Descents
  - Descending Turns
  - Power-Off Stalls (Imminent)
  - Power-On Stalls (Imminent)
  - Maneuvering During Slow Flight
  - Recovery From Unusual Flight Attitudes
  - Operations in Turbulence
- Post Flight Procedures

COMPLETION STANDARDS:
At the completion of the flight lesson, the student should demonstrate an understanding of the full panel instrument references as they relate to aircraft control. During this flight, the student will maintain altitude within +/- 200 feet and headings within +/- 15° during level flight. Climb and descent airspeeds will be maintained within +/- 5 knots. All takeoff and landing procedures will be conducted safely and at least at the private pilot proficiency level.
STAGE VI FLIGHT LESSON 2 DUAL – AIRPLANE

LESSON OBJECTIVE:

This lesson reviews full panel attitude instrument flying to prepare the student for the later introduction of partial panel airwork.

CONTENT:

Lesson Review
Aircraft Flight Instruments and Navigation Equipment
Full Panel Instrument
  - Straight and Level
  - Standard-Rate Turns
  - Constant Airspeed Climbs
  - Constant Airspeed Descents
  - Maneuvering During Slow Flight
Lesson Introduction
  - IFR Preflight Inspection
  - Preflight Check of Instruments, Equipment, and Systems
  - Instrument Cockpit Check
  - IFR Takeoff Preparations
  - Change of Airspeed
  - Steep Turns
  - Instrument Takeoffs
  - Timed Turns to Magnetic Headings

COMPLETION STANDARDS:

The student will demonstrate an understanding of aircraft attitude control by instrument reference. Altitude should be maintained within +/- 200 feet and airspeeds within +/- 15 knots of the desired values. Additionally, the student should display an understanding of the IFR preflight inspection and the importance of IFR takeoff preparations.

STUDENT NAME _______________________________ ID# ___________________
INSTRUCTOR NAME ____________________________ CERT# _________________
AIRCRAFT # CRM FLIGHT STAGE # VI LESSON # 2
SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION______

STUDENT SIGNATURE ___________________________________________
INSTRUCTOR SIGNATURE ___________________________________________
STAGE VI FLIGHT LESSON 3 DUAL - AIRPLANE

LESSON OBJECTIVE: The objective of this lesson is to increase the student's proficiency in attitude instrument flying.

CONTENT:
Lesson Review
Preflight of Instruments and Equipment
Instrument Cockpit Check
Full Panel Instrument
  - Straight and Level
  - Climb and Descents
  - Change of Airspeed
  - Standard-Rate Turns
  - Recovery From Unusual Flight Attitudes
  - Operations in Turbulence
  - Climbing Turns
  - Descending Turns
Lesson Introduction
Partial Panel Instrument
  - Straight and Level
  - Level Turns, including Standard Rate Turns
  - Constant Airspeed Climbs
  - Constant Airspeed Descents
  - Change of Airspeed
  - Timed Turns
  - Compass Turns
  - Instrument Failures
Full Panel Instrument
  - Steep Turns

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 partial panel to assigned altitudes of +/- 200 feet and airspeeds of +/- 10 knots. The student will be able to demonstrate the correct recovery procedures from unusual flight attitudes.

STUDENT NAME ___________________________ ID# __________________
INSTRUCTOR NAME ___________________________ CERT# __________________
AIRCRAFT # CRM FLIGHT STAGE # VI LESSON # 3
SAT ____ % UNSAT ____ % INCOMPLETE ____ % CANCELLATION_____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)
Note: 1. Circle appropriate status/grade and put number (%) grade on line.
  2. If cancellation state reason.

REMARKS: __________________________________________________________
FOR U OR I: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS
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FOR XC FLIGHTS, LIST DESTINATIONS: _________________________________

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HOBBS / TAC: IN _______ / _______ REMARKS: __________________
      OUT _______ / _______ __________________
TOTAL TIME __________________

STUDENT SIGNATURE _____________________________________________
INSTRUCTOR SIGNATURE _________________________________________
STAGE VI FLIGHT LESSON 4 DUAL - AIRPLANE

LESSON OBJECTIVE: This lesson provides additional practice in full panel attitude instrument flying and introduces more complex partial panel instrument procedures. The student will also be introduced to IFR flight plans and IFR Clearances.

CONTENT:

Lesson Review
- Full and Partial Panel Instrument
- Straight and Level
- Standard-Rate Turns
- Constant Airspeed Climbs
- Constant Airspeed Descents
- Maneuvering During Slow Flight
- Systems and Equipment Failures

Lesson Introduction
- Full Panel Instrument
- Constant Rate Climbs
- Constant Rate Descents
- Partial Panel Instrument
- Recovery From Unusual Flight Attitudes
- Timed Turns
- Magnetic Compass Turns
- Constant Rate Climbs
- Constant Rate Descents
- Power-Off Stalls (Imminent)
- Power-On Stalls (Imminent)
- Maneuvering During Slow Flight
- IFR Flight Plans
- IFR Clearances

COMPLETION STANDARDS:
Using partial panel instrument reference, the student should be able to maintain altitude within +/- 200 feet, headings within +/- 15°, and airspeeds within +/- 15 knots of the desired values. The student should be able to file an IFR flight plan and be able to obtain an IFR clearance from ATC.
STAGE VI FLIGHT LESSON 5 DUAL - AIRPLANE

LESSON OBJECTIVE: This lesson continues to develop the student’s knowledge and skill in full and partial panel attitude instrument flying. It also prepares the student for more complex procedures — specifically, combining attitude instrument flight and radio navigation. Any maneuvers previously determined deficient by the instructor, should be reviewed in this lesson.

CONTENT:
Lesson Review
- Full and Partial Panel Instrument
- Straight and Level
- Constant Rate Climbs
- Constant Airspeed Climbs
- Constant Rate Descents
- Constant Airspeed Descents
- Timed Turns
- Magnetic Compass Turns
- Recovery From Unusual Flight Attitudes
- Change of Airspeed
- Power-Off Stalls (Imminent)
- Power-On Stalls (Imminent)
- Maneuvering During Slow Flight

COMPLETION STANDARDS:
The student will be able to recognize the approach of stalls as well as perform recoveries without abrupt control usage. Correct recovery techniques should be demonstrated for unusual attitudes, using both the full and partial panel. All basic attitude maneuvers should be performed satisfactorily by the completion of this lesson.
STAGE VI LESSON 6 QUIZ

LESSON OBJECTIVE: The objective of this lesson is to test the students knowledge of this stage through a quiz.

COMPLETION STANDARDS: This lesson is complete when the student scores 70% or better. In addition, the instructor is responsible for reviewing those questions missed.
UNIVERSITY OF OKLAHOMA
INSTRUMENT PILOT CERTIFICATION COURSE
STAGE VII

STAGE OBJECTIVE

During this stage the student will refine basic attitude instrument flying, learn to use navigation systems to maintain orientation in the national airspace system, intercept and track courses to and from navigation aids and demonstrate proper holding procedures.

COMPLETION STANDARD

The student will be able to use available navigation systems to establish their position, intercept and track courses to and from navigation aids and demonstrate proper holding procedures.
STAGE VII FLIGHT LESSON 1 DUAL – AATD

LESSON OBJECTIVE: This lesson has two objectives: to teach orientation in relation to a VOR station, and to intercept and track a specified radial.

CONTENT:
Lesson Review
Full and Partial Panel Instrument
- Straight and Level
- Standard-Rate Turns
- Constant Rate Climbs
- Constant Airspeed Climbs
- Constant Rate Descents
- Constant Airspeed Descents
- Recovery from Unusual Flight Attitudes

Lesson Introduction
- VOR Accuracy Test
- VOR Radial Interception and Tracking
- VOR Orientation
- VOR Holding

COMPLETION STANDARDS:
The student will display increased proficiency in attitude instrument flight. The student also will understand VOR orientation and tracking procedures, including the interception of specific VOR radials and application of the correct wind correction angle. The student will determine the optimum holding entry procedure and apply the appropriate wind correction angles and timing correction. Headings will be maintained within +/- 10 degrees, airspeed within +/- 10 knots and altitude within +/- 100 feet.
STAGE VII FLIGHT LESSON 2 DUAL – AIRPLANE

LESSON OBJECTIVE: The student is given an opportunity to practice VOR orientation, radial interception, and tracking procedures. Tracking of DME arcs and holding on a DME fix are introduced.

CONTENT:
Lesson Review
- VOR Orientation
- VOR Radial Interception and Tracking
- VOR Holding

Lesson Introduction
- Intercepting and Tracking DME Arcs
- DME Fix Holding

COMPLETION STANDARDS:
The student will demonstrate an understanding of the procedures used to intercept and track DME arcs as well as VOR and DME Fix holding to include execution of the optimum holding entry procedure and application of the correct wind correction angles and time correction. Headings will be maintained within +/- 10 degrees, airspeed within plus or minus 10 knots and altitude within +/- 100 feet.

UNIVERSITY OF OKLAHOMA

STUDENT NAME _______________________________ ID# __________________

INSTRUCTOR NAME ___________________________ CERT# ________________

AIRCRAFT # CRM FLIGHT STAGE # VII LESSON # 2

SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION_______

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:
1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: __________________________________________________________

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STUDENT SIGNATURE ________________________________________________

INSTRUCTOR SIGNATURE _____________________________________________
STAGE VII FLIGHT LESSON 3 DUAL – AIRPLANE

LESSON OBJECTIVE: This lesson reviews VOR and DME procedures and introduces the student to ADF orientation and the differences between ADF homing and the interception and tracking of NDB bearings.

CONTENT:
Lesson Review
- VOR Orientation
- VOR Tracking
- Intercepting and Tracking DME Arcs
Lesson Introduction
- GPS Course Programming and Tracking

COMPLETION STANDARDS:
The student will demonstrate increased proficiency in all VOR procedures and NDB and GPS orientation, bearing interception and tracking, applying the optimum intercept heading and wind correction angle. Headings will be maintained within +/- 10 degrees, airspeed within +/- 10 knots and altitude within +/- 100 feet.

UNIVERSITY OF OKLAHOMA
STUDENT NAME _______________________________ ID# _________________
INSTRUCTOR NAME ____________________________ CERT# ______________
AIRCRAFT # CRM FLIGHT STAGE # VII LESSON # 3
SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION______

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)
Note:
1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.
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STAGE VII FLIGHT LESSON 4 DUAL - AIRPLANE

LESSON OBJECTIVE: This lesson reviews previously learned procedures, and introduces ILS navigation, and localizer and intersection holding.

CONTENT:
Lesson Review
- VOR Procedures
- Intercepting and tracking DME arcs
- VOR Holding

Lesson Introduction
- ILS Navigation
- Localizer Tracking
- Localizer Holding
- Intersection Holding

COMPLETION STANDARDS:
The student will demonstrate increased proficiency in all the listed procedures. The student will demonstrate the optimum holding entry procedure and apply the correct wind correction angles and time correction. Headings will be maintained within +/- 10 degrees, airspeed within +/- 10 knots and altitude within +/- 100 feet.

UNIVERSITY OF OKLAHOMA

STUDENT NAME _______________________________ ID# _________________
INSTRUCTOR NAME ____________________________ CERT# ______________
AIRCRAFT # CRM FLIGHT STAGE # VII LESSON # 4
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HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:
1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

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STAGE VII FLIGHT LESSON 5 DUAL – AIRPLANE

LESSON OBJECTIVE: This lesson will review VOR, DME and NDB interception and tracking and introduce the student to NDB holding.

CONTENT:
Lesson Review
- VOR Orientation
- VOR Tracking
Lesson Introduction
- GPS Holding Patterns

COMPLETION STANDARDS:
The student will demonstrate increased proficiency in all VOR procedures as well as NDB and GPS course tracking. The student will demonstrate the optimum holding entry procedure and apply the correct wind correction angles and timing correction. Headings will be maintained within +/- 10 degrees, airspeed within +/- 10 knots and altitude within +/- 100 feet.

STUDENT NAME _______________________________ ID# __________________
INSTRUCTOR NAME __________________________ CERT# ________________
AIRCRAFT # CRM FLIGHT STAGE # VII LESSON # 5
SAT _____% UNSAT _____% INCOMPLETE ____% CANCELLATION_____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)
Note:
1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.
REMARKS: __________________________________________________________

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STUDENT SIGNATURE _______________________________________________
INSTRUCTOR SIGNATURE ____________________________________________
STAGE VII FLIGHT LESSON 6 DUAL - AIRPLANE

LESSON OBJECTIVE: This lesson reviews previously learned procedures to increase proficiency. Procedures to be reviewed will be selected by the instructor.

CONTENT:
Lesson Review
- VOR Course Interception and Tracking
- Localizer Interception and Tracking
- DME Arc Interception and Tracking
- VOR Holding
- DME Fix Holding
- Localizer Holding
- Intersection Holding

COMPLETION STANDARDS:
The student will demonstrate the optimum holding entry procedure and apply the correct wind correction angles and timing correction. Headings will be maintained within +/- 10 degrees, airspeed within +/- 10 knots and altitude within +/- 100 feet. 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.
Lesson Objective: During this flight, the student learns front and back course localizer tracking. The primary emphasis is on learning to interpret the CDI indications associated with the increased sensitivity of the localizer while tracking inbound on the front or back course.

Content:
Lesson Review
- Partial Panel Instrument
  - Straight and Level
  - Constant Rate Climbs
  - Constant Airspeed Climbs
  - Constant Rate Descents
  - Timed Turns

Lesson Introduction
- Localizer Tracking

Completion Standards:
In addition to partial panel instrument review, the student will demonstrate the optimum holding entry procedure and apply the correct wind correction angles and timing correction. Headings will be maintained within +/- 10 degrees, airspeed within +/- 10 knots and altitude within +/- 100 feet. 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.
STAGE VII FLIGHT LESSON 8 DUAL – AIRPLANE

LESSON OBJECTIVE: The objective for this lesson is for the student to review and practice basic attitude instrument flight and navigation to increase proficiency and review holding procedures selected by the instructor.

CONTENT:

Lesson Review
Full Panel Instrument
Partial Panel Instrument
Holding
- VOR Holding
- DME Fix Holding
- Localizer Holding
- Intersection Holding

COMPLETION STANDARDS:
In addition to partial panel instrument review, the student will demonstrate the optimum holding entry procedure and apply the correct wind correction angles and timing correction. Headings will be maintained within +/- 10 degrees, airspeed within +/- 10 knots and altitude within +/- 100 feet. 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.
STAGE VII FLIGHT LESSON 9 DUAL - AIRPLANE

LEsson OBJECTIVE The objective of this lesson is to introduce the student to use of the GPS receiver to navigate to a fix and hold on a GPS waypoint. Additionally, the student will review holding procedures as selected by the instructor. If an IFR GPS equipped aircraft is not available this lesson will consist of the review portion only.

CONTENT:
Lesson Review:
- Holding
  - VOR Holding
  - DME Fix Holding
  - Localizer Holding
  - Intersection Holding
  - GPS Holding

COMPLETION STANDARDS:
The student will demonstrate the optimum holding entry procedure and apply the correct wind correction angles and timing correction. Headings will be maintained within +/- 10 degrees, airspeed within +/- 10 knots and altitude within +/- 100 feet. 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.
STAGE VII LESSON 10 DUAL - AIRPLANE

LESSON OBJECTIVE
During this lesson the student will review course interception and tracking and holding procedures as selected by the instructor.

CONTENT:
Lesson Review:
- Course Interception and Tracking
- GPS
- VOR
- Holding
- GPS Holding
- VOR Holding
- DME Fix Holding
- Localizer Holding
- Intersection Holding

COMPLETION STANDARDS:
The student will demonstrate the optimum holding entry procedure and apply the correct wind correction angles and timing correction. Headings will be maintained within +/- 10 degrees, airspeed within +/- 10 knots and altitude within +/- 100 feet. 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.

UNIVERSITY OF OKLAHOMA

STUDENT NAME _______________________________ ID# __________________

INSTRUCTOR NAME ____________________________ CERT# _______________

AIRCRAFT # CRM FLIGHT STAGE # VII LESSON # 10

SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION_______

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)
Note:
1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: __________________________________________________________

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OUT ________/__________

TOTAL TIME __________________

STUDENT SIGNATURE _____________________________________________

INSTRUCTOR SIGNATURE _________________________________________
STAGE VII FLIGHT LESSON 11 DUAL - AIRPLANE

LESSON OBJECTIVE: During this lesson the student will review course interception and tracking and holding procedures as selected by the instructor.

CONTENT:
Lesson Review:
Course Interception and Tracking
- GPS
- VOR
- Localizer Holding
- GPS Holding
- VOR Holding
- DME Fix Holding
- Localizer Holding
- Intersection Holding

COMPLETION STANDARDS:
The student will demonstrate the optimum holding entry procedure and apply the correct wind correction angles and timing correction. Headings will be maintained within +/- 10 degrees, airspeed within +/- 10 knots and altitude within +/- 100 feet. 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.

UNIVERSITY OF OKLAHOMA

STUDENT NAME __________________________ ID# ________________

INSTRUCTOR NAME __________________________ CERT# ________________

AIRCRAFT # CRM FLIGHT STAGE # VII LESSON # 11

SAT _____% UNSAT _____% INCOMPLETE _____% CANCELLATION_____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:
1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: ______________________________________________________

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HOBBS / TAC IN _____ / _______ REMARKS: __________
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TOTAL TIME __________________

STUDENT SIGNATURE _________________________________________
INSTRUCTOR SIGNATURE ___________________________________________
STAGE VII LESSON 12 QUIZ

LESSON OBJECTIVE: The objective of this lesson is to test the student’s knowledge of this stage through a quiz.

COMPLETION STANDARDS:
This lesson is complete when the student scores 70% or better. In addition, the instructor is responsible for reviewing each question missed.

STUDENT NAME ___________________________ ID# __________________
INSTRUCTOR NAME _________________________ CERT# ________________
AIRCRAFT # ___________ QUIZ ___________ FLIGHT ___________ STAGE # VII LESSON # 12
SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION________

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)
Note:
1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: __________________________________________________________

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STUDENT SIGNATURE ____________________________________________
INSTRUCTOR SIGNATURE ________________________________
STAGE VII FLIGHT LESSON 13 DUAL - AIRPLANE

STAGE CHECK
BASIC ATTITUDE INSTRUMENT, NAVIGATION and HOLDING

LESSON OBJECTIVE: During this lesson the student will be evaluated on basic attitude instrument flying, course interception and tracking and holding procedures.

CONTENT:
Lesson Review
- Basic Attitude Instrument Flying
- Straight and Level
- Straight Climbs and Descents
- Climbing and Descending Turns
- Unusual Attitude Recovery
Course Interception, Tracking and Holding (at least two of the following)
- GPS
- VOR
- DME Fix
- Localizer
- Intersection

COMPLETION STANDARDS:
The student will demonstrate correct procedures for recovering from unusual attitudes. The student will demonstrate the optimum holding entry procedure and apply the correct wind correction angles and timing correction. Headings will be maintained within +/- 10 degrees, airspeed within +/- 10 knots and altitude within +/- 100 feet. 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.

STUDENT NAME _______________________________ ID# ________________
INSTRUCTOR NAME ____________________________ CERT# ______________
AIRCRAFT # CRM FLIGHT STAGE # VII LESSON # 13C
SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION_____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:
1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: _______________________________________________________

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STUDENT SIGNATURE _____________________________________________
INSTRUCTOR SIGNATURE _________________________________________
UNIVERSITY OF OKLAHOMA
INSTRUMENT PILOT CERTIFICATION COURSE
STAGE VIII

STAGE OBJECTIVE
The purpose of Stage VIII is to introduce and train the student to perform accurate instrument approach procedures including missed approaches. The student will also review holding procedures.

COMPLETION STANDARD
The student will be able to demonstrate all types of IFR approaches and accurately perform holding patterns.
STAGE VIII FLIGHT LESSON 1 DUAL – AATD

LESSON OBJECTIVE This lesson introduces the student to non-precision instrument approach procedures and missed approach planning.

CONTENT:
Lesson Review
Full Panel Instrument
Systems and Equipment Failures
Lesson Introduction
VOR Approaches
Localizer Approaches (Front Course)
Straight-In Approach Procedures
Circling Approach Procedures
Missed Approach Procedures

COMPLETION STANDARDS:
At the completion of this lesson, the student should be able to:
- Explain and use the information displayed on the approach charts.
- Execute several initial and intermediate approach segments to arrive at the final approach fix.
- Complete the final approach and letdown to the missed approach point.
- Demonstrate the missed approach procedure, as published on the appropriate chart or as instructed by ATC.
STAGE VIII FLIGHT LESSON 2 DUAL – AATD

LESSON OBJECTIVE: This lesson is aimed toward developing instrument flight proficiency. First, VOR and front course localizer approaches are reviewed and practiced. Localizer Back Course approach is introduced.

CONTENT:
Lesson Review
Intercepting and Tracking DME Arcs
VOR Approaches
Localizer Approaches
Missed Approach Procedures (including holding)
Lesson Introduction
Localizer Back Course Approaches

COMPLETION STANDARDS:
During the NDB and localizer back course approaches, the student will demonstrate proper tracking, using power and attitude changes to control airspeed and descent rates. Headings will be maintained +/- 10 degrees, airspeeds +/- 10 knots and altitudes +/- 100 feet and altitude at the MDA +100/-0 feet. The student will also demonstrate the optimum holding entry procedure and 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.

UNIVERSITY OF OKLAHOMA

STUDENT NAME _______________________________ ID# __________________
INSTRUCTOR NAME ____________________________ CERT# __________________

AIRCRAFT # _____ AATD _____ FLIGHT _____ STAGE # _____ VIII _____ LESSON # _____ 2

SAT _____ %  UNSAT _____ %  INCOMPLETE _____ %  CANCELLATION_____

HOMEWORK COMPLETE: Y / N  (% grade is normally part of the lesson grade.)
Note: 1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

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STUDENT SIGNATURE ________________________________________________
INSTRUCTOR SIGNATURE ___________________________________________
STAGE VIII FLIGHT LESSON 3 DUAL – AIRPLANE

LESSON OBJECTIVE: The objective of Lesson 3 is for the student to increase proficiency by review and practice of those procedures listed. In addition, the student will be introduced to ILS approach procedures.

CONTENT:
Lesson Review (One or more approaches as selected by the instructor)
VOR Approaches
Localizer Approaches (as appropriate)
Circling Approach Procedures
Missed Approach Procedures (including holding)
Lesson Introduction
- ILS Approaches
- GPS Approaches
- Full Procedures
- Vector to Final

COMPLETION STANDARDS:
During ILS and GPS approaches, the student will demonstrate accurate localizer interception and tracking and make a transition to the glide slope at the correct point. The glide slope and localizer should be maintained with less than full-scale needle deflection. Headings will be maintained +/- 10 degrees, airspeeds +/- 10 knots and altitudes +/- 100 feet and altitude at the MDA +100/-0 feet. On ILS approaches the student will execute the missed approach procedure at DH +100/-0 feet. The student will also demonstrate the optimum holding entry procedure and 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.

UNIVERSITY OF OKLAHOMA

STUDENT NAME _______________________________ ID# __________________

INSTRUCTOR NAME ____________________________ CERT# ______________

AIRCRAFT # CRM FLIGHT STAGE # VIII LESSON # 3

SAT _____%   UNSAT _____%   INCOMPLETE ____%   CANCELLATION________

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)
Note: 1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: __________________________________________________________
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OUT _________________ SYLL. LESSON ____________

TOTAL _________________ PROCESSED ON __________

HOBBBS / TAC IN _________________ REMARKS: _________________

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TOTAL TIME _________________

STUDENT SIGNATURE ________________________________________________

INSTRUCTOR SIGNATURE _____________________________________________
STAGE VIII FLIGHT LESSON 4 DUAL - AIRPLANE

LESSON OBJECTIVE: During this lesson, the student will be introduced to no-gyro radar vectoring and approach procedures. With this introduction and a review of attitude instrument flying, the student will obtain the necessary knowledge and skill for the introduction of enroute procedures and holding patterns.

CONTENT:
Lesson Review (One or more approaches as selected by the instructor):
- Full Panel Instrument (As Necessary)
- ILS Approaches
- Localizer Approaches
- GPS Approaches
- Vector to Final

Lesson Introduction

Partial Panel Approach Procedures

COMPLETION STANDARDS:
The student will understand the procedures used to perform no-gyro radar vectoring and approaches, and demonstrate proficiency in copying and complying with ATC clearances that pertain to the approach. Headings will be maintained +/- 10 degrees, airspeeds +/- 10 knots and altitudes +/- 100 feet and altitude at the MDA +/- 100 feet. On ILS approaches the student will execute the missed approach procedure at DH +/- 100/-0 feet. The student will maintain the course to within ¾ scale deflection on the CDI.
STAGE VIII FLIGHT LESSON 5 DUAL - AIRPLANE

LESSON OBJECTIVE The objective of this lesson is to increase the students knowledge and proficiency in the procedures listed below. This includes full and partial panel approaches.

CONTENT:
Lesson Review (One or more approaches as selected by the instructor):
- ILS Approaches
- VOR Approaches
- Localizer Approaches (as appropriate)
- GPS Approaches
- Circling Approach Procedures
- Missed Approach Procedures
- Landing from a Straight-In or Circling Approach Procedure
- Partial Panel Approach Procedures

COMPLETION STANDARDS:
Headings will be maintained +/- 10 degrees, airspeeds +/- 10 knots and altitudes +/- 100 feet and altitude at the MDA +/-100/-0 feet. On ILS approaches the student will execute the missed approach procedure at DH +/-100/-0 feet. The student will maintain the course to within ¾ scale deflection on the CDI.

UNIVERSITY OF OKLAHOMA

STUDENT NAME _______________________________ ID# _________________

INSTRUCTOR NAME ____________________________ CERT# ______________

AIRCRAFT # CRM FLIGHT STAGE # VIII LESSON # 5

SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION______

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:
1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: __________________________________________________________

FOR U OR I: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

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OUT ________________ SYLL. LESSON ___________
TOTAL ________________ PROCESSED ON __________

HOBBS / TAC IN ________________ REMARKS: _______________________
OUT ______________________
TOTAL TIME ______________________

STUDENT SIGNATURE ________________________________________________

INSTRUCTOR SIGNATURE ____________________________________________
STAGE VIII FLIGHT LESSON 6 DUAL – AIRPLANE

LESSON OBJECTIVE The objective of this lesson is to increase the students knowledge and proficiency in the procedures listed below. This includes full and partial panel approaches.

CONTENT:
Lesson Review (One or more procedures as selected by the instructor):
  - ILS
  - GPS
  - Localizer
  - VOR
Partial Panel Approach Procedures
Missed Approach Procedures (including holding)
Landing from a straight in or circling approach

COMPLETION STANDARDS:
Headsings will be maintained +/- 10 degrees, airspeeds +/- 10 knots and altitudes +/- 100 feet and altitude at the MDA +100/-0 feet. On ILS approaches the student will execute the missed approach procedure at DH +100/-0 feet. The student will maintain the course to within ¾ scale deflection on the CDI, or to within +/- 10 degrees on the ADF. The student will also demonstrate the optimum holding entry procedure and 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.
STAGE VIII FLIGHT LESSON 7 DUAL - LOCAL, INSTRUMENT

LESSON OBJECTIVE: The objective of this lesson is to increase the students knowledge and proficiency in the procedures listed below. This includes full and partial panel approaches.

CONTENT:
Lesson Review (One or more procedures as selected by the instructor):
Approaches
- ILS
- Localizer
- VOR
- GPS
No-Gyro Radar Vectoring and Approach Procedures
Missed Approach Procedures (including holding)
Landing from a straight in or circling approach

COMPLETION STANDARDS:
Headings will be maintained +/- 10 degrees, airspeeds +/- 10 knots and altitudes +/- 100 feet and altitude at the MDA +/-100/-0 feet. On ILS approaches the student will execute the missed approach procedure at DH +100/-0 feet. The student will maintain the course to within ¾ scale deflection on the CDI, or to within +/- 10 degrees on the ADF. The student will also demonstrate the optimum holding entry procedure and 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.
STAGE VIII FLIGHT LESSON 8 DUAL - AIRPLANE

LESSON OBJECTIVE: The objective of this lesson is to increase the students knowledge and proficiency in the procedures listed below. This includes full and partial panel approaches.

CONTENT:
Lesson Review (One or more procedures as selected by the instructor):
Approaches
- ILS
- Localizer
- VOR
- GPS
No-Gyro Radar Vectoring and Approach Procedures
Missed Approach Procedures (including holding)
Landing from a straight in or circling approach

COMPLETION STANDARDS:
Headings will be maintained +/- 10 degrees, airspeeds +/- 10 knots and altitudes +/- 100 feet and altitude at the MDA +/-100/-0 feet. On ILS approaches the student will execute the missed approach procedure at DH +/-100/-0 feet. The student will maintain the course to within ¾ scale deflection on the CDI, or to within +/- 10 degrees on the ADF. The student will also demonstrate the optimum holding entry procedure and 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.

UNIVERSITY OF OKLAHOMA

STUDENT NAME _______________________________ ID# __________________
INSTRUCTOR NAME ____________________________ CERT# __________________
AIRCRAFT # CRM FLIGHT STAGE # VIII LESSON # 8
SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION_______
HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)
Note:  
1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.
REMARKS: ____________________________________________________________
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HOBBS / TAC IN _______________ REMARKS: _______________
      OUT __________________
      TOTAL TIME _______________

STUDENT SIGNATURE _________________________________________
INSTRUCTOR SIGNATURE ______________________________________
STAGE VIII FLIGHT LESSON 9 DUAL LOCAL-INSTRUMENT

LESSON OBJECTIVE:
The objective of this lesson is to increase the student's knowledge and proficiency in the procedures listed below. This includes full and partial panel approaches.

CONTENT:
Lesson Review (One or more procedures as selected by the instructor):
Approaches
- ILS
- Localizer
- VOR
- GPS
Partial Panel Approach Procedures
Missed Approach Procedures (including holding)
Landing from a straight in or circling approach

COMPLETION STANDARDS:
Headings will be maintained +/- 10 degrees, airspeeds +/- 10 knots and altitudes +/- 100 feet and altitude at the MDA +100/-0 feet. On ILS approaches the student will execute the missed approach procedure at DH +100/-0 feet. The student will maintain the course to within 3/4 scale deflection on the CDI, or to within +/- 10 degrees on the ADF. The student will also demonstrate the optimum holding entry procedure and 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.
STAGE VIII LESSON 10 QUIZ

LESSON OBJECTIVE: The objective of this lesson is to evaluate the students knowledge of this stage through a quiz.

COMPLETION STANDARDS:
This lesson is complete when the student scores 70% or better. In addition, the instructor is responsible for reviewing those questions missed.

STUDENT NAME _______________________________ ID# __________________

INSTRUCTOR NAME ____________________________ CERT# ______________

AIRCRAFT # _______ QUIZ _______ FLIGHT _______ STAGE # VIII LESSON # 10

SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION_____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:
1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: __________________________________________________________

FOR U OR I: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

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TOTAL ________________ PROCESSED ON __________

HOBBS / TAC IN ________________ REMARKS: ________________

OUT ____________________

TOTAL TIME ________________

STUDENT SIGNATURE ________________________________

INSTRUCTOR SIGNATURE ____________________________
STAGE VIII FLIGHT LESSON 11 DUAL-AIRPLANE

STAGE CHECK
INSTRUMENT PROCEDURES AND APPROACHES

LESSON OBJECTIVE: The objective of this stage check is for the chief instructor or the designated assistant to evaluate the student's proficiency in the proper execution of instrument approach procedures.

CONTENT:
Lesson Review (One or more procedures as selected by the check pilot):
- Approaches
- ILS
- Localizer
- VOR
- GPS
Partial Panel Approach Procedures
Missed Approach Procedures
Landing from a straight in or circling approach

COMPLETION STANDARDS:
The student should demonstrate instrument pilot proficiency, as outlined in the current FAA instrument rating practical test standards, in each of the listed procedures.

UNIVERSITY OF OKLAHOMA

STUDENT NAME _______________________________ ID# _________________
INSTRUCTOR NAME ___________________________ CERT# ______________
AIRCRAFT # CRM FLIGHT STAGE # VIII LESSON # 11C
SAT _____% UNSAT _____% INCOMPLETE ____% CANCELLATION_____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)
Note: 1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.
REMARKS: __________________________________________________________
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STUDENT SIGNATURE __________________________
INSTRUCTOR SIGNATURE _______________________
UNIVERSITY OF OKLAHOMA
INSTRUMENT PILOT CERTIFICATION COURSE
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.

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 practical test standards.
STAGE IX FLIGHT LESSON 1 DUAL – AIRPLANE, CROSS-COUNTRY

LESSON OBJECTIVE: During this lesson, the student will plan and conduct an IFR cross-country flight. During the flight, the student will become familiar with IFR departure and arrival procedures.

CONTENT:
Lesson Review
Filing an IFR Flight Plan
Air Traffic Control Clearances
Navigation using VOR and GPS
Precision and Nonprecision Approaches (as selected by the instructor)
Simulated Emergency Procedures
Landing from a straight in or circling approach
Postflight Procedures
Lesson Introduction
IFR Cross-Country Flight Planning
- Obtaining Weather Information
- Aircraft Performance, Limitations, and Systems Related to IFR Operation
- Use of IFR enroute charts
- Calculation of magnetic heading, ETE and fuel consumption
IFR Clearances Departure and Arrival Procedures
Enroute Course Changes

COMPLETION STANDARDS:
The student will demonstrate correct IFR flight planning procedures, how to obtain clearances, correct usage of navigation equipment, and correctly react to emergency situations. The student will maintain heading, altitude, airspeed and course IAW the Instrument Rating Practical Test Standards.

UNIVERSITY OF OKLAHOMA

STUDENT NAME __________________________ ID# ______________________
INSTRUCTOR NAME ________________________ CERT# __________________

AIRCRAFT # CRM FLIGHT STAGE # IX LESSON # 1

SAT ____ % UNSAT ____ % INCOMPLETE ____ % CANCELLATION_____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)
Note:
1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: _________________________________________________________

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HOBBS / TAC IN _______________ REMARKS: _______________
OUT _______________
TOTAL TIME _______________

STUDENT SIGNATURE _____________________________________________

INSTRUCTOR SIGNATURE ________________________________________
STAGE IX FLIGHT LESSON 2 DUAL - CROSS-COUNTRY, INSTRUMENT

LESSON OBJECTIVE: The objective of this lesson is to increase the student's proficiency in instrument cross-country procedures by conducting another IFR cross country flight.

CONTENT:
Lesson Review
IFR Cross-Country Planning
Filing an IFR Flight Plan
Obtaining an IFR Clearance
- Clearance Copying
- Clearance Readback
IFR Departure Procedures and Clearances
IFR Enroute Procedures and Clearances
IFR Approach Procedures and Clearances
Canceling an IFR Flight Plan
Precision and Nonprecision Approaches (as selected by the instructor)
Holding (as selected by the instructor)
Landing from straight in or circling approach
Postflight Procedures

COMPLETION STANDARDS:
The student should demonstrate instrument pilot proficiency, as outlined in the current FAA instrument rating practical test standards, in the instrument approach and holding pattern maneuvers and an increased understanding of instrument cross country procedures.

UNIVERSITY OF OKLAHOMA

STUDENT NAME _______________________________ ID# _________________
INSTRUCTOR NAME ____________________________ CERT# ______________
AIRCRAFT # CRM______ FLIGHT ___ STAGE # IX LESSON # 2
SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION_____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)
Note:
1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: ________________________________

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TIME: IN _________________ ENTERED BY _________________
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HOBBS / TAC IN _________________ REMARKS: __________________
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TOTAL TIME __________________

STUDENT SIGNATURE _____________________________________________

INSTRUCTOR SIGNATURE _________________________________________
STAGE IX FLIGHT LESSON 3 DUAL – AIRPLANE, CROSS-COUNTRY

LESSON OBJECTIVE: This flight gives the student an in-depth and in-detail exposure to IFR cross-country operations, including departure, enroute, emergency, and arrival procedures. The flight must be a distance of at least 250 n.m. in length along airways or ATC-directed routing with one segment of the flight consisting of at least a straight-line distance of 100 n.m. between airports and involves an instrument approach at each airport; and involves three different kinds of approaches with the use of navigation systems.

CONTENT:
Lesson Review
IFR Cross-Country Planning
Filing an IFR Flight Plan
Preflight Check of Instruments and Equipment
Obtaining an IFR Clearance
Departure Procedures and Clearances
- Departure Procedures
- Use of Radar
Enroute Procedures and Clearances
- Navigation Using VOR’s and GPS
- Holding
- Enroute Course Changes
Simulated Emergency Procedures
- Loss of Communications
- Radio Failure
- Instrument Failure
- Systems Failure
- Icing
- Turbulence
- Low Fuel Supply
- Engine Failure
Arrival Procedures and Clearances
- Use of Arrival Procedures
- Use of Radar
- At least three different instrument approaches, including one approach at each airport (as determined by the instructor)
- Circling Approach Procedures
- Missed Approach Procedures
- Landing from a straight in or circling approach
Postflight Procedures

COMPLETION STANDARDS:
The student will demonstrate the ability to plan and execute a cross country instrument flight. The student should demonstrate instrument pilot proficiency, as outlined in the current FAA instrument rating practical test standards, in the instrument approach and holding pattern maneuvers and an increased understanding of instrument cross county procedures.

UNIVERSITY OF OKLAHOMA

STUDENT NAME _______________________________ ID# __________________
INSTRUCTOR NAME ____________________________ CERT# ______________
AIRCRAFT # CRM FLIGHT STAGE # IX LESSON # 3
SAT _____% UNSAT _____% INCOMPLETE ____% CANCELLATION_____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)
Note: 1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.
REMARKS: ____________________________________________
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FOR XC FLIGHTS, LIST DESTINATIONS: _________________________________

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DATE: __________________
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       TOTAL ______ PROCESSED ON _____

HOBBS / TAC IN _______ REMARKS: _______
       OUT _______
       TOTAL TIME _______

STUDENT SIGNATURE ____________________________________________
INSTRUCTOR SIGNATURE _________________________________________
STAGE IX FLIGHT LESSON 4 LOCAL - DUAL, AIRPLANE

INSTRUMENT PROCEDURES AND APPROACHES

LESSON OBJECTIVE: The objective of this lesson is to evaluate the student's proficiency in the proper execution of holding patterns and instrument approach procedures.

CONTENT:
Lesson Review (As Selected by the Instructor)
Precision Approaches
Nonprecision Approaches (full and partial panel)
Circling Approach Procedures
Straight-In Approach Procedures
Missed Approach Procedures
Unusual Attitudes
Landing From a Straight In or Circling Approach
Postflight Procedures

COMPLETION STANDARDS:
The student should demonstrate instrument pilot proficiency, as outlined in the current FAA instrument rating practical test standards, in each of the selected procedures.

STUDENT NAME ___________________________ ID# _______________
INSTRUCTOR NAME _________________________ CERT# ______________
AIRCRAFT # CRM FLIGHT STAGE # IX LESSON # 4
SAT _____% UNSAT _____% INCOMPLETE ____% CANCELLATION_____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)
Note:
1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.
REMARKS: ______________________________
FOR U OR I: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

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FOR XC FLIGHTS, LIST DESTINATIONS: _______________________________

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TOTAL ____________ PROCESSED ON ____________

HOBBS / TAC IN ____________ REMARKS: __________________
OUT ____________
TOTAL TIME __________________

STUDENT SIGNATURE ___________________________________________
INSTRUCTOR SIGNATURE ________________________________________
STAGE IX FLIGHT LESSON 5 DUAL - AIRPLANE

LESSON OBJECTIVE: The objective of this lesson is to evaluate the student's proficiency in preparation for the final stage check.

CONTENT:
Lesson Review
As determined by the Flight Instructor - cover any areas in which the student is deficient.

COMPLETION STANDARDS:
The student should demonstrate instrument pilot proficiency, as outlined in the current FAA instrument rating practical test standards, in each of the covered procedures.

UNIVERSITY OF OKLAHOMA

STUDENT NAME _______________________________ ID# _______________
INSTRUCTOR NAME ____________________________ CERT# ______________

AIRCRAFT # CRM FLIGHT STAGE # IX LESSON # 5

SAT _____% UNSAT _____% INCOMPLETE ____% CANCELLATION____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)
Note: 1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: ______________________
FOR U OR I: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS
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OUT _______________ _______________________________
TOTAL TIME _______________ _______________________________

STUDENT SIGNATURE ____________________________________________

INSTRUCTOR SIGNATURE _________________________________________
STAGE IX LESSON 6 QUIZ

LESSON OBJECTIVE: The objective of this lesson is to test the students knowledge of this stage through a quiz.

COMPLETION STANDARDS:
This lesson is complete when the student scores a 70% or better. In addition, the instructor is responsible for reviewing those questions missed.

STUDENT NAME _______________________________ ID# __________________
INSTRUCTOR NAME ____________________________ CERT# ________________

AIRCRAFT #   QUIZ    FLIGHT  STAGE #   IX  LESSON #   6
SAT ____%  UNSAT ____%  INCOMPLETE ____%  CANCELLATION______

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)
Note:
1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: __________________________________________________________
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FOR XC FLIGHTS, LIST DESTINATIONS: _________________________________

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       TOTAL ____________ PROCESSED ON __________

HOBBS / TAC  IN _______________ REMARKS: _______________
              OUT ___________________
              TOTAL TIME _______________

STUDENT SIGNATURE ________________________________________________
INSTRUCTOR SIGNATURE ____________________________________________
STAGE IX FLIGHT LESSON 7 DUAL - AIRPLANE

FINAL STAGE CHECK

LESSON OBJECTIVE: This lesson is the final stage check conducted by the Chief or Assistant Chief Flight Instructor. During this lesson, the student must demonstrate knowledge and proficiency in all tasks to a level required by the FAA Instrument Rating Practical Test Standards. The order of material examined under lesson content is based on how this material may be covered during the oral and flight portions of the practical test. The person conducting this stage check is not required to cover the material in the order indicated, as long as all required material is covered.

Note: The examiner will check for updates to the practical test standards. Any additional SEA’s or AO’s/Tasks added in the future will be evaluated.

CONTENT:
SPECIAL EMPHASIS AREAS: In addition to the specific Areas of Operations (AO’s and Tasks identified in the oral and flight portions of the test, the following special emphasis areas will be evaluated throughout the test:

- Positive Aircraft Control
- Positive Exchange of Flight Controls
- Stall/Spin Awareness
- Collision Avoidance
- Wake Turbulence Avoidance
- Land and Hold Short Operations
- Runway Incursion Avoidance
- Controlled Flight Into Terrain
- ADM/Risk Management
- Checklist Usage
- Single Pilot Resource Management
- Icing Condition Operational Hazards, Anti-Icing and De-Icing Equipment, Difference, and Approved Use and Operations
- Any Other Areas Added In Future PTS Changes

(CONTINUED ON NEXT PAGE)
STAGE IX FLIGHT LESSON 7 DUAL - LOCAL, INSTRUMENT (CONT’D)

Oral Portion of Practical Test
Cross Country Flight Scenario. The applicant will plan an instrument cross country flight from OUN to an airport outside of the OKC area in Class C or B airspace.
Pilot Qualifications (AOI, Task A)
Weather Information (AOI, Task B)
Test applicant’s ability to recognize and deal with adverse weather (icing, need for and selection of an alternate etc.)
Notes:

Cross-Country Flight Planning
Test applicant’s understanding and use of
Low altitude enroute charts, approach plates,
Arrival/Departure procedures, obtaining clearances, closing flight plans etc.
(AOI, Task C and AOIII, Tasks A and B, AOVI)
Notes:

Emergency Operations, Loss of Communications (AOVII, Task A)
Notes:

Aircraft Systems Related to Flight Operations (AOII, Task A)
Test Applicant’s knowledge of aircraft anti and deice systems
Notes:

Aircraft Flight Instruments and Navigation Equipment (AOII, Task B)
Notes:

Flight Portion of Practical Test
Note: The applicant will be given a flight scenario. In the course of executing the scenario the examiner will present the applicant with different situations (weather, equipment failure, ATC requests etc.). In the process of demonstrating the ability to execute the scenario and deal with the situations presented by the examiner the applicant will demonstrate satisfactory performance of the following tasks:

Instrument Cockpit Check (AOII, Task C)
Notes:

Air Traffic Control Clearances (AOIII, Task A)
Evaluated Throughout The Flight
Notes:

Compliance With Departure, En Route, And Arrival Procedures and Clearances (AOIII, Task B)
Evaluated Throughout The Flight
Notes:

Flight By Reference to Instruments (AOIV, Task A)
Evaluated Throughout The Flight
Notes:

Precision Approach (AOVI, Task B)
Missed Approach (AOVI, Task C)
Notes:

(CONTINUED ON NEXT PAGE)
Nonprecision Approach (AO VI, Task A)
Simulate DG and Attitude Indicator (or primary)
Display failure for EFIS aircraft (AOVII, Task D)
Missed Approach (AOVI, Task C)

Notes:

Intercepting and Tracking Navigation Systems
And DME ARCS (AOV, Task A)

Notes:

Recovery From Unusual Attitudes
(AOIV, Task B)

Notes:

Published or Non-published Hold (AOIII, Task C)

Notes:

Circling Approach – Must be different than the first nonprecision approach. (AOVI, Task D)

Notes:

Land The Aircraft At Approach Completion
(AOVI, Task E)

Notes:

Postflight Procedures – Checking Instrument/Equipment (AOVIII, Task A)

Notes:

COMPLETION STANDARDS
The student will demonstrate proficiency in strict accordance with the Instrument Rating (Airplane) Practical Test Standards. All tasks not performed or not performed satisfactorily will be annotated as either:
U: Performance on task not within PTS standards.
NC: Task not evaluated due to not completing the test – weather cancellation, maintenance, termination due to failure on an earlier task, etc.
APPENDIX B  
UNIVERSITY OF OKLAHOMA  
COURSE POLICIES

1. 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 objectives and completion standards; not absolute required times. The lesson time could be slightly more or slightly less. These reduced hours must be included in other lessons to complete the total ground or flight time specified by category in the training course outline in order to satisfactorily complete the course.

2. 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.

3. Any lesson stated as an AATD lesson may be flown in an aircraft, or AATD. The lesson will include the required pre- and post-flight procedures.

4. Flight training for this course will be done in accordance with the F.A.A approved syllabus. Deviations from the syllabus due to student training requirements, weather related factors, or other items as necessary will be allowed as long as the following requirements are met:
   1.) A notation will be made in the student training record as to the lesson covered and the reason for the deviation.
   2.) The student will complete all syllabus requirements before a graduation certificate is issued.

5. To satisfactorily complete the course of training, the student must meet all course objectives and completion standards. The student must complete the ground school courses. The student must complete 37.7 hours dual training (which includes 31.5 hours of IDL) in the PA28-161. IDL plus AATD time must add up to at least 35 hours. A shortage of IDL time can not be made up in an AATD.
The University of Oklahoma Department of Aviation has three (3) practice areas used for normal flight training operations on a daily basis. They are designated practice area 'A', 'B', and 'C'.

Practice area 'A' is described as an area southwest of Max Westheimer Airport bounded on the north by State Highway 9, on the south by the 35° line of latitude, on the west by the line extending north and south along a similar direction road extending south from the town of Blanchard, and on the east by the line formed by the railroad tracks running southeast from Norman, OK along and near Interstate Highway 35.

Practice area 'B' is described as an area southeast of Max Westheimer Airport bounded on the north by State Highway 9, on the south by State Highway 33, on the west by the railroad tracks extending southeast from Norman, OK, and on the east by an imaginary line extending south from the east side of Lake Thunderbird and ending at State Highway 33.

Practice area 'C' is described as an area west of Max Westheimer Airport bounded on the north by an imaginary line extending west from State Highway 9 southwest of Norman, Ok. to the town of Pocasset, OK., on the south by the 35° line of latitude, on the west by the line extending north and south along a similar direction road extending north from the town of Chickasha, OK. and on the east by the line extending north and south along a similar direction road extending south from the town of Blanchard, OK.