AVIA 4602/4113
CERTIFIED FLIGHT INSTRUCTOR FLYING
FLIGHT INSTRUCTOR SEMINAR
UNIVERSITY OF OKLAHOMA
2020-09-01

_________________________    _____, 20_____

I, _________________________________, have acquired and have in my possession a copy of
the training course outline, training syllabus, and safety procedures and practices for AVIA 4602 AND 4113,
Certified Flight Instructor Flying and Seminar.

_________________________________________________________________________
Student Signature

_________________________________________________________________________
Flight Instructor Signature

_________________________________________________________________________
Chief Flight Instructor Signature
UNIVERSITY OF OKLAHOMA  
DEPARTMENT OF AVIATION  
FLIGHT INSTRUCTOR CERTIFICATION COURSE  
AIRPLANE – SINGLE ENGINE

This course fulfills the requirements of 14 CFR, Section 141, Appendix F for the initial issuance of a flight instructor certificate with airplane category and single engine land class rating.

**COURSE OBJECTIVE:** The student will obtain the knowledge, skill, and aeronautical experience necessary to meet the requirements for a flight instructor 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 a flight instructor certificate 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 Fundamentals of Instructing and Flight Instructor Airplane knowledge tests. At the completion of flight training the student will pass the single-engine flight instructor practical test, based on the current Flight Instructor Airplane – Single Engine 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, PA28R-200/201* and C-152. They meet the requirements of 14 CFR, Section 141.39. VFR airplanes are equipped for day and night VFR as specified in 14 CFR, Section 91.205. Airplanes used for instrument training are equipped for IFR as specified in 14 CFR, 91.205. Radio equipment will consist of at least one VHF transceiver and at least one VOR receiver. *Although not required to meet curriculum requirements a PA28R-200/201 may be used for any of the lessons, except the spin lesson.
UNIVERSITY OF OKLAHOMA  
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FLIGHT INSTRUCTOR CERTIFICATION COURSE

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/instrument certificate with an airplane category rating and a single-engine class rating 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/instrument certificate with an airplane category rating and single-engine class rating 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/instrument certificate with an airplane category rating and single-engine class rating 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 an airplane category rating and a single-engine class rating and have at least a second class medical certificate. For Stages V and X, (s)he must also hold an instrument instructor rating.

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 advanced 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 a private pilot certificate with an aircraft category and single engine land rating and at least a third class medical certificate prior to enrolling in the flight portion of the commercial pilot certification course. You must also have an instrument airplane rating, or be concurrently enrolled in the University of Oklahoma Instrument Rating Course and pass the required instrument rating practical test prior to completing the commercial pilot certification course.

REQUIREMENTS FOR GRADUATION: To obtain a commercial pilot certificate, 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 18 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 page 1. You must also have an instrument airplane rating prior to the beginning of Stage X.

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 D. 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 Commercial Pilot Practical Test Standards and will be at least equal in scope, depth, and difficulty to that practical test.
The aircraft may be returned to service if the main office is locked and this can't be done, the "Maintenance Required" sign is placed in the maintenance in-box in the dispatch area. If the discrepancy can't be corrected immediately, but the mechanics are not available, place the top copy of the "Maintenance Problem" section along with any required operating information in the "Maintenance Required" section of the Aircraft Sign Out Sheet. If the main office is closed, place the yellow copy on the Aircraft Sign Out Sheet. If the discrepancy is reported after the aircraft is assigned to the student, the instructor will place a note in the Chief Flight Instructor's box indicating the student name, aircraft tail number and itinerary of the flight. The Chief Flight Instructor or designated assistant checks this box prior to departure each day. If the solo departure is after normal business hours, the instructor will call the OU mobile phone number with this information.

.Notification of solo students returning after normal business hours (Monday through Friday after 5:00 PM, or any time on weekends and holidays): The instructor will tell the student to call the OU mobile phone number at 405-919-6319 upon return. If the solo departure is during normal business hours the instructor will place a note in the Chief Flight Instructor's box indicating the student name, aircraft tail number and itinerary of the flight. The Chief Flight Instructor or designated assistant checks this box prior to departure each day. If the solo departure is after normal business hours, the instructor will call the OU mobile phone number with this information.

**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** - In the event a student landing is accomplished at an unscheduled destination for any reason, the student is to contact the Aviation Department at (405) 325-7231 (Long Distance instate toll free 1-800-522-0772 ext. 7231), or OU Aviation mobile phone at 405-919-6319 prior to determining any further course of action.

**AIRCRAFT DIScrepancies** - Upon noticing a discrepancy the pilot in command will take the following actions:
- Place the plastic "Maintenance Required" sign in the windscreen 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 loose 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.
UNIVERSITY OF OKLAHOMA
DEPARTMENT OF AVIATION
FLIGHT INSTRUCTOR CERTIFICATION COURSE
RULES OF OPERATION

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. Solo fuel reserves will be one hour remaining after the full stop landing on both local and cross-country flights.

MINIMUM ALTITUDES - Minimum altitude for solo maneuver practice 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 REQUIRED FOR SOLO FLIGHT:

Solo Traffic Pattern:
1,500' ceiling 3 miles visibility

Solo Area Work:
2,500' ceiling 5 miles visibility

Solo X-C:
2,500' ceiling 10 miles visibility

This minimum applies for the entire route to be flown and the forecast must indicate an improvement or to remain the same.

* Dual - All flights, except Instrument:
1,000' ceiling 3 miles visibility

* Special VFR Closed Traffic Pattern Operations may not be conducted unless normal traffic pattern altitude can be obtained. IFR operations will not be conducted unless weather minimums are at or above the specified approach minimums for the current instrument approach in use at Max Westheimer Airport.

WEATHER MINIMUMS FOR IFR TRAINING
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:
Solo: Maximum 25 knots - Maximum 10 knots gust spread
Dual: Maximum 35 knots - Maximum 15 knots gust spread
Crosswind: Crosswind limits will not exceed those specified by the POH 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. Solo students returning after hours when the main office is locked will leave the aircraft checklists and syllabus sheet in the aircraft. The aircraft keys will be placed in the envelope slot in the door to the large hangar. All solo students returning after normal business hours (5:00 PM, Monday through Friday or any time on weekends and holidays) will call the OU mobile phone at 919-6319 to report completion of the flight.

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.
STAGE OBJECTIVE

The objective of this stage is for the student to gain the instructional skills and flight proficiency required for the Flight Instructor, Airplane - Single-Engine rating.

STAGE COMPLETION STANDARDS

This stage of training will be complete when the student has gained the instructional skill and flight proficiency required to act as a Flight Instructor, Airplane - Single-Engine. The student will successfully complete the final stage check.

LESSON TIME ALLOCATION

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*The individual lesson times shown on this table are for instructor/student guidance only, they are not mandatory for a given lesson. However, the totals in each category must be attained at the completion of the stage to insure the student will acquire at least the minimum amount of required instruction.

DL = Dual Instruction
IDL = Instrument Dual
DL Nite = Dual Night
CA = Complex Aircraft
PGI = Practice Ground Instruction
FLIGHT LESSON 1

Lesson Objective: This lesson allows the student to analyze and perform private pilot flight training maneuvers. In preparation, the student should review the flight maneuvers in 14 CFR, Part 61 covering solo flight requirements for student pilots and flight proficiency requirements for private pilots.

Content:
- Lesson Introduction
  - Preflight Preparations and Procedures
    - Demonstration of Primary Controls
    - Visual Inspection
    - Taxiing
    - Pre-takeoff Check
    - Radio Communications
    - Airport and Runway Markings and Lights
    - Airport Operations
  - Take-off and Landings
    - Normal
    - Crosswind
  - Straight Climbs and Climbing Turns
  - Straight and Level Flight
  - Straight Descents and Descending Turns
  - Level Turns
    - Shallow
    - Medium
    - Steep Turns
  - Maneuvering During Slow Flight
  - Recognition and Recovery from Stalls Entered from Straight Flight and From Turns and Various Power Combinations
    - Power On Stalls
    - Power Off Stalls
  - Post Flight Procedures

Completion Standards:
Student will demonstrate a commercial pilot skill level.
FLIGHT LESSON 2

Lesson Objective: This lesson continues analysis and performance of private flight training maneuvers. The maneuvers are those listed in FAR Part 61 and the Private Pilot Practical Test Standards.

Content:
➢ Lesson Review
   o Takeoffs and Landings
     ▪ Normal
     ▪ Crosswind
     ▪ Go-Arounds
➢ Lesson Introduction
   o Flight by Reference to Ground Objects
     ▪ Tracking Along a Road
     ▪ Rectangular Course
     ▪ Turns About a Point
     ▪ S Turns Across a Road
   o Descents
     ▪ High and Low Drag Configuration

Completion Standards:
Student will perform to a commercial pilot skill level.

UNIVERSITY OF OKLAHOMA
STUDENT NAME ___________________________ ID# _______________
INSTRUCTOR NAME ___________________________ CERT# ______________
AIRCRAFT # CRM FLIGHT STAGE # FCI 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 _______________________________________
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HOBBS / TAC: IN ________/__________ REMARKS: ______________
OUT ________/__________ __________________________
TOTAL TIME __________________
FLIGHT LESSON 3

Lesson Objective: This lesson continues analysis and performance of private flight training maneuvers. The maneuvers are those listed in the Private Pilot Practical Test Standards.

Content:
- Lesson Introduction
  - Power-Off 180 Degree Accuracy Approach and Landing
  - Emergency Procedures
    - Forced Landings Initiated on:
      - Takeoff
      - Initial Climb
      - Cruise
      - Descent
      - Landing Patterns
      - Equipment Malfunctions
      - Fire in Flight
      - Collision Avoidance
      - Slips
      - Go-Arounds Initiated From:
        - Landing Flare
        - Turns
        - Various Flight Configurations

Completion Standards:
The student must demonstrate commercial pilot knowledge and skill level.
FLIGHT LESSON 4

Lesson Objective: The student will perform and analyze traffic pattern procedures and takeoffs and landings. The student should read AC90-48 "Pilots Role in Collision Avoidance" and the AIM Section on Airport Operations before the lesson. Also, the student will demonstrate the ability to plan a cross country by bringing a typical student cross country flight plan to the lesson.

Content:

➢ Lesson Introduction
  o Cross Country Flying
    ▪ Cockpit Management
    ▪ Course Intersection
    ▪ Pilotage/Dead Reckoning
    ▪ Power Setting and Mixture Control
    ▪ Estimate of Ground Speed and ETA
    ▪ Diversion to an Alternate
    ▪ Lost Procedures
    ▪ Radio Navigation
    ▪ Airport and Runway Lighting
  o Airport and Traffic Pattern Operations
    ▪ Traffic Patterns
    ▪ Departure Procedures
    ▪ Entry Procedures
    ▪ Wake Turbulence Avoidance
    ▪ Collision Avoidance Precautions
    ▪ Radio Communications
    ▪ Light Gun Signals
    ▪ Runway Marking
    ▪ Runway Incursion Precautions
  o Takeoffs and Landings
    ▪ Short Field
    ▪ Soft Field
    ▪ Landings With Power at Idle
    ▪ Landings With and Without Flaps
    ▪ Turbulent Air Approach and Landing

Completion Standards:
The student will be thoroughly familiar with the FAA recommendations on airport operations and collision avoidance and demonstrate a commercial pilot skill level.

UNIVERSITY OF OKLAHOMA

STUDENT NAME _______________________________ ID# __________________

INSTRUCTOR NAME ____________________________ CERT# ________________

AIRCRAFT # CRM FLIGHT STAGE # CFI 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 I OR U: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

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              OUT _______/_______
              TOTAL TIME __________

STUDENT SIGNATURE _____________________________________________

INSTRUCTOR SIGNATURE ___________________________________________
FLIGHT LESSON 5

Lesson Objective: The student will perform and analyze a series of commercial flight training maneuvers.

➢ Lesson Introduction
  o Performance Maneuvers
    ▪ Chandelles
    ▪ Lazy Eights
    ▪ Steep Turns
    ▪ Steep Spirals
  o Emergency Approach and Landing
  o Slips
  o Takeoff and Landings
    ▪ Short Field
    ▪ Soft Field
  o Ground Reference Maneuver
    ▪ Eights-on-Pylons

Completion Standards:
The student should perform all tasks to a commercial pilot skill level.
FLIGHT LESSON 6

Lesson Objective: During this lesson the student will analyze and perform Maneuvering During Slow Flight and stalls that are familiar from private and commercial pilot operations. A series of stalls that are listed in the Flight Instructor Practical Test Standards are introduced.

Content:
➢ Lesson Review
   o Power On Stalls
   o Power Off Stalls
➢ Lesson Introduction
   o Engine Failure on Climb Followed by 180 Degree Turn
   o Secondary Stalls
   o Cross Controlled Stalls
   o Elevator Trim Stalls
   o Accelerated Stalls

Completion Standards:
The student should perform all task to a commercial pilot skill level.

UNIVERSITY OF OKLAHOMA

STUDENT NAME _______________________________ ID# __________________
INSTRUCTOR NAME ____________________________ CERT# __________________
AIRCRAFT # _CRM_ FLIGHT STAGE # _CFI_ 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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HOBBS / TAC: IN ___________ / ___________ REMARKS: ______________
             OUT ___________ / ___________
             TOTAL TIME
STUDENT SIGNATURE ______________________________________________
INSTRUCTOR SIGNATURE _____________________________________________
PRACTICE GROUND INSTRUCTION A

**Lesson Objective:** During ground lesson A through D, the student will demonstrate to their flight instructor the instructional knowledge of Practical Test Standard (PTS) Format and the subjects listed in area of operation II of the Flight Instructor Practical Test Standards (CFI PTS). The intent of these five hours is for the student to demonstrate the ability to give effective instruction, not to receive instruction. These four lessons can be placed at any convenient point in the flight training syllabus. The student should be given enough time to prepare to teach on the assigned subject areas. The lesson content is suggested. The flight instructor can re-arrange the content of lessons A through D as required to meet the student's needs, but all subjects must be covered.

**Content:**
- Lesson Introduction (General Practical Test Standards [PTS] Format)
  - Introduction (Emphasis on highlighted subjects)
    - PTS Concept
    - PTS Description
    - Use of The PTS Book
    - Judgment Assessment Matrix
    - Special Emphasis Areas
    - Test Prerequisites
    - Aircraft/Equipment Required for the Practical Test
    - Flight Instructor Responsibility
    - Examiner Responsibility
    - Satisfactory Performance
    - Unsatisfactory Performance
    - Single Pilot Resource Management (SRM)
    - Applicant’s Use of Checklists
    - Use of Distractions During Practical Tests
    - Positive Exchange of Flight Controls
    - Stalls and Spin Awareness
  - Additional Rating Task Table
  - Contents
    - Areas of Operation
    - Tasks

**Completion Standards:**
The student will demonstrate instructional knowledge of the subjects covered during the practice ground instruction session.
FLIGHT LESSON 7

Lesson Objective: During this lesson, the student will explain and demonstrate basic private pilot maneuvers. The student will prepare a lesson plan, deliver a twenty minute preflight briefing, then conduct the training flight. The student should refer to FAA-H-8083-3 “Airplane Flying Handbook,” during their preparation for this lesson.

Content:
Briefing: The student will prepare a lesson plan and deliver a twenty minute preflight briefing for this flight. The lesson plan and briefing will be appropriate for student pilots.

➢ Lesson Review:
  o Preflight Preparations and Procedures
    ▪ Demonstration of Primary Controls
    ▪ Visual Inspection
    ▪ Taxiing
    ▪ Pre-takeoff Check
    ▪ Radio Communications
    ▪ Airport and Runway Markings and Lights
    ▪ Runway Incursion Precautions
  o Take-off and Landings
    ▪ Normal
    ▪ Crosswind
  o Straight Climbs and Climbing Turns
  o Straight and Level Flight
  o Straight Descents and Descending Turns
  o Level Turns
    ▪ Shallow
    ▪ Medium
    ▪ Steep Bank Turns
  o Slow Flight with Realistic Distractions
  o Post Flight Procedures

Completion Standards:
The student's knowledge of the subject areas, explanations and demonstrations will meet Flight Instructor Practical Test Standards.

UNIVERSITY OF OKLAHOMA

STUDENT NAME _______________________________ ID# __________________

INSTRUCTOR NAME ____________________________ CERT# ________________

AIRCRAFT # CRM FLIGHT STAGE # CFI LESSON # 7

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

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DATE: ___________________ ENTERED BY ___________________

TIME:  IN ____________ INVOICE ____ FLIGHT REC____

OUT ____________ SYLL. LESSON ______________

TOTAL ____________ PROCESSED ON ______________

HOBBS / TAC:  IN _______/_______ REMARKS: __________________

OUT _______/_______ ____________________________

TOTAL TIME __________________

STUDENT SIGNATURE _______________________________________

INSTRUCTOR SIGNATURE ___________________________________
FLIGHT LESSON 8

**Lesson Objective:** During this lesson, the student will explain and demonstrate stalls, slow flight, and private pilot ground reference maneuvers. The student should refer to FAA-H-8083-3 “Airplane Flying Handbook” and AC61-67 "Stall and Spin Awareness Training" during the preparation of the lesson plan. The student will conduct the training flight.

**Content:**

**Briefing:** The student will prepare a lesson plan and deliver a twenty minute preflight briefing for this flight. The lesson plan and briefing will be appropriate for student pilots.

- **Lesson Review**
  - Takeoff and Landings
    - Normal
    - Crosswind
    - Go-Arounds
  - Power On Stalls
  - Power Off Stalls
  - Ground Reference Maneuvers
    - Tracking Along a Road
    - Rectangular Course
    - Turns About a Point
    - S Turns Across a Road
    - Traffic Pattern

**Completion Standards:**

The student's knowledge of the subject areas, explanations and demonstrations will meet Flight Instructor Practical Test Standards.
FLIGHT LESSON 9

Lesson Objective: The student will explain and demonstrate emergency procedures. The student should refer to FAA-H-8083-3 "Airplane Flying Handbook" when preparing the lesson plan. The student will conduct the training flight.

Content:
Briefing: The student will prepare a lesson plan and deliver a twenty minute preflight briefing for this lesson. The lesson plan and briefing will be appropriate for student pilots.

➢ Lesson Review
   o Emergency Approach and Landing
   o Forced Landings Initiated On:
     ▪ Takeoff
     ▪ Initial Climb
     ▪ Cruise
     ▪ Descent
     ▪ Landing Patterns
   o Systems and Equipment Malfunctions
     ▪ Smoke, Fire or Both During Ground or Flight
   o Operations
     ▪ Engine Overheat
     ▪ Electrical System Malfunction
     ▪ Carburetor or Induction Icing
     ▪ Door open in Flight
   o Slips
   o Go Arouunds Initiated From:
     ▪ Landing Flare
     ▪ Turns
     ▪ Various Flight Configurations

Completion Standards:
The student's knowledge of the subject areas, explanations and demonstrations will meet Flight Instructor Practical Test Standards.
FLIGHT LESSON 10

Lesson Objective: The student will explain and demonstrate airport traffic pattern operations and maximum performance takeoff and landing. The student should refer to FAA-H-8083-3 "Airplane Flying Handbook, Private and Commercial Practical Test Standards," AC90-48 "Pilots Role in Collision Avoidance" and the AIM Section on Airport Operations when preparing the lesson plan. The student will conduct the training flight.

Content:

Briefing: The student will prepare a lesson plan and deliver a twenty minute preflight briefing for this lesson. The lesson plan and briefing will be appropriate for student pilots.

➢ Lesson Review
   o Airport Traffic Pattern Operation
     ▪ Departure Procedure
     ▪ Entry Procedures
     ▪ Wake Turbulence Avoidance
     ▪ Collision Avoidance Precaution
     ▪ Land and Hold Short (LAHSO) Procedures
     ▪ Light Gun Signals
   o Takeoffs and Landings
     ▪ Landings With and Without Flaps
     ▪ Turbulent Air Approaches and Landing
     ▪ Power-Off 180 Degree Accuracy Approach and Landing
     ▪ Short Field
     ▪ Soft Field

Completion Standards:
The student's knowledge of the subject areas, explanations and demonstrations will meet Flight Instructor Practical Test Standards.
Lesson Objective: During ground lesson A through D, the student will demonstrate to their flight instructor the instructional knowledge of Practical Test Standard (PTS) Format and the subjects listed in area of operation II of the Flight Instructor Practical Test Standards (CFI PTS). The intent of these five hours is for the student to demonstrate the ability to give effective instruction, not to receive instruction. These four lessons can be placed at any convenient point in the flight training syllabus. The student should be given enough time to prepare to teach on the assigned subject areas. The lesson content is suggested. The flight instructor can re-arrange the content of lessons A through D as required to meet the student’s needs, but all subjects must be covered.

Content:
- Lesson Introduction
  - Principles of Flight
  - Airplane Flight Controls
  - Runway Incursion Avoidance
  - Airplane Weight and Balance

Completion Standards:
The student will demonstrate instructional knowledge of the subjects covered during the practice ground instruction session.
FLIGHT LESSON 11 NIGHT, INSTRUMENT

Lesson Objective: The student will explain and demonstrate night operations and flight by reference to instruments. The student should refer to FAA-H-8083-3, AC61-23C, the Private and CFI PTS when preparing the lesson plan. The student will conduct the training flight.

Content:
Briefing: The student will prepare a lesson plan and deliver a twenty minute preflight briefing for this flight lesson. The lesson plan and briefing will be appropriate for student pilots. The student flight instructor should assume that this is the first night flight and the first flight by reference to instruments for their "student".

➢ Lesson Review
   o Night Flight Considerations
   o Aeromedical Factors
     ▪ Night Vision
     ▪ Vertigo
   o Aircraft Lights
   o Airport Lights
   o Runway Incursion Precautions during night operations
   o Flight By Reference to Instruments (IR)
     ▪ Straight and Level
     ▪ Turns to Headings
     ▪ Climb
     ▪ Descent
     ▪ Unusual Attitudes
     ▪ Radio Navigation

Completion Standards:
The student's knowledge of the subject areas, explanations and demonstrations will meet Flight Instructor Practical Test Standards.
FLIGHT LESSON 12

Lesson Objective: The student will explain and demonstrate VFR navigation. The student should refer to FAA-H-8083-3 "Airplane Flying handbook" and the Private Pilot and Commercial Pilot Practical Test Standards when preparing the lesson plan. The student will conduct the training flight.

Content:
Briefing: The student will prepare a lesson plan and deliver a twenty minute preflight briefing for this lesson. The lesson plan and briefing will be appropriate for student pilots.

➢ Lesson Review
  o Cross Country Flying
    ▪ Cockpit Management
    ▪ Course Intersection
    ▪ Pilotage/Dead Reckoning
    ▪ Power Setting and Mixture Control
    ▪ Estimate of Ground Speed and ETA
    ▪ Diversion to an Alternate
    ▪ Lost Procedures
    ▪ Radio Navigation
    ▪ Airport and Runway Lighting
  o Airport and Traffic Pattern Operations
    ▪ Traffic Patterns
    ▪ Departure Procedures
    ▪ Entry Procedures
    ▪ Wake Turbulence Avoidance
    ▪ Collision Avoidance Precautions
    ▪ Radio Communications
    ▪ Light Gun Signals
    ▪ Runway Marking
    ▪ Runway Incursion Precautions

Completion Standards:
The student's knowledge of the subject areas, explanations and demonstrations will meet Flight Instructor Practical Test Standards.
FLIGHT LESSON 13

Lesson Objective: The student will explain and demonstrate commercial pilot ground reference maneuvers. The student should refer to FAA-H-8083-3 "Airplane Flying Handbook" and the Commercial Pilot Practical Test Standards when preparing the lesson plan. The student will conduct the training flight.

Content:
Briefing: The student will prepare a lesson plan and deliver a twenty minute preflight briefing for the flight lesson. The lesson plan and briefing will be appropriate for commercial pilot applicants.

➢ Lesson Review
  o Eights-on-Pylons
  o Takeoff and Landings
    ▪ Short Field
    ▪ Soft Field
    ▪ Power-Off 180 Degree Accuracy Approach and Landing
  o Emergency Procedures

Completion Standards:
The student's knowledge of the subject areas, explanations and demonstrations will meet Flight Instructor Practical Test Standards.
FLIGHT LESSON 14

Lesson Objective: This lesson is a review in preparation of the intermediate stage check.

Content:

Briefing:

The student will prepare a lesson plan and deliver a thirty minute preflight briefing for the flight lesson on a commercial performance maneuver selected by the examiner. The lesson plan and briefing will be appropriate for commercial pilot applicants. In addition to a description of how the maneuver is performed and common errors associated with the maneuver the student will also describe the aerodynamics of the maneuver. During the briefing include an explanation of:

- Forces Acting on an Airplane During Turns
- Load Factor
- Overbanking Tendency
- Adverse Yaw
- Left Turning Tendencies

Lesson Review

- Steep Turns
- Chandelles
- Lazy Eights
- Steep Spirals
- Takeoff and Landings
  - Short Field
  - Soft Field
- Emergency Procedures

Completion Standards:

The student's knowledge of the subject areas, explanations and demonstrations will meet Flight Instructor Practical Test Standards.
PRACTICE GROUND INSTRUCTION C

Lesson Objective: During ground lesson A through D, the student will demonstrate to their flight instructor the instructional knowledge of Practical Test Standard (PTS) Format and the subjects listed in area of operation II of the Flight Instructor Practical Test Standards (CFI PTS). The intent of these five hours is for the student to demonstrate the ability to give effective instruction, not to receive instruction. These four lessons can be placed at any convenient point in the flight training syllabus. The student should be given enough time to prepare to teach on the assigned subject areas. The lesson content is suggested. The flight instructor can re-arrange the content of lessons A through D as required to meet the student's needs, but all subjects must be covered.

Content:
- Lesson Introduction
  - Aeromedical Factors
  - Visual Scanning and Collision Avoidance
  - Use of Distractions During Flight Training
  - Navigation and Flight Planning
  - Night Operations
  - High Altitude Operations

Completion Standards:
The student will demonstrate instructional knowledge of the subjects covered during the practice ground instruction session.

UNIVERSITY OF OKLAHOMA

STUDENT NAME _______________________________ ID# __________________
INSTRUCTOR NAME ___________________________ CERT# __________________
AIRCRAFT # _______ PGI _______ FLIGHT STAGE # _______ CFI _______
LESSON # _______ C

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 I OR U: 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 ____________________________
FLIGHT LESSON 15 – INTERMEDIATE STAGE CHECK

Lesson Objective: The student will explain and demonstrate commercial pilot performance maneuvers. The student should refer to FAA-H-8083-3 "Airplane Flying Handbook" and the Commercial Pilot Practical Test Standards when preparing the lesson plan. The student will conduct the training flight.

Content:
Briefing: The student will prepare a lesson plan and deliver a thirty minute preflight briefing for the flight lesson on a commercial performance maneuver selected by the examiner. The lesson plan and briefing will be appropriate for commercial pilot applicants. In addition to a description of how the maneuver is performed and common errors associated with the maneuver the student will also describe the aerodynamics of the maneuver. During the briefing include an explanation of:
  o Forces Acting on an Airplane During Turns
  o Load Factor
  o Overbanking Tendency
  o Adverse Yaw
  o Left Turning Tendencies

➢ Lesson Review
  o Steep Turns
  o Chandelles
  o Lazy Eights
  o Steep Spirals
  o Takeoff and Landings
    ▪ Short Field
    ▪ Soft Field
  o Emergency Procedures

Completion Standards:
The student's knowledge of the subject areas, explanations and demonstrations will meet Flight Instructor Practical Test Standards.
FLIGHT LESSON 16

Lesson Objective: During this lesson the student should explain and demonstrate all maneuvers that need work from the previous stage check. A lesson plan should be developed prior to the flight and presented to the instructor over those specific maneuvers.

Content:
Briefing: The student will prepare and give a twenty minute presentation over assigned maneuvers from the previous stage check. The lesson plan and briefing will be appropriate for private and commercial pilot applicants.

➢ Lesson Review
  o The student will explain and demonstrate assigned maneuvers.
  o These maneuvers should be derived from the previous stage check.

Completion Standards:
The student's knowledge of the subject areas, explanations and demonstrations will meet or exceed the Flight Instructor Practical Test Standards.

UNIVERSITY OF OKLAHOMA

STUDENT NAME __________________________ ID# _______________
INSTRUCTOR NAME __________________________ CERT# ______________
AIRCRAFT # CRM FLIGHT STAGE # CFI LESSON # 16

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 _________________________________________
FLIGHT LESSON 17

Lesson Objective: During this lesson the student will explain and demonstrate stalls appropriate to the flight instructor rating. The applicant should refer to FAA-H-8083-3 "Airplane Flying Handbook" and AC61-67 "Stall and Spin Awareness Training" during the preparation for the lesson plan.

Content:
Briefing: The student will prepare a lesson plan and deliver a twenty minute preflight briefing for this flight lesson. The lesson plan and briefing will be appropriate for private and commercial pilot applicants.

- Lesson Review
  - The student will explain and demonstrate the following:
    - Stall Awareness
    - Stall Avoidance at Slow Airspeed
    - Realistic Distractions for Student Pilots
    - Power On Stalls
    - Engine Failure in Climb Followed by 180 Degree Turn
    - Cross Controlled Stalls
    - Power Off Stalls
    - Elevator Trim Stalls
    - Secondary Stalls
    - Accelerated Stalls

Completion Standards:
The student's knowledge of the subject areas, explanations and demonstrations will meet or exceed the Flight Instructor Practical Test Standards.
FLIGHT LESSON 18

Lesson Objective: During this lesson the student will explain and demonstrate spins. The student should review the 14 CFR, Part 61 relating to spin briefings required for private pilots and spin proficiency demonstrations required for Certified Flight Instructors. Also, the student should refer to FAA-H-8083-3 "Airplane Flying Handbook" and AC61-67 "Stall and Spin Awareness Training" during the preparation of their lesson plan.

Content:
Briefing: The student will prepare a lesson plan and deliver a twenty minute preflight briefing for this flight lesson. The lesson plan and briefing will be appropriate for CFI applicants.

➢ Lesson Review
  o Left and Right Spins with power on and power off entry
  o Cross Controlled Spin Entry
  o Cross Controlled Stall With Full Power Addition After the Stall Occurs (Demonstration of Torque Effect)

Completion Standards:
The student's knowledge of the subject areas, explanations and demonstrations will meet or exceed the Flight Instructor Practical Test Standards. The student will receive a logbook endorsement for spin training.

Note: If student has obtained Part 61 spin endorsement, flight lesson may substitute stall review including cross-controlled stalls and accelerated stalls in lieu of spin maneuvers.
PRACTICE GROUND INSTRUCTION D

Lesson Objective: During ground lesson A through D, the student will demonstrate to their flight instructor the instructional knowledge of Practical Test Standard (PTS) Format and the subjects listed in area of operation II of the Flight Instructor Practical Test Standards (CFI PTS). The intent of these five hours is for the student to demonstrate the ability to give effective instruction, not to receive instruction. These four lessons can be placed at any convenient point in the flight training syllabus. The student should be given enough time to prepare to teach on the assigned subject areas. The lesson content is suggested. The flight instructor can re-arrange the content of lessons A through D as required to meet the student's needs, but all subjects must be covered.

Content:
➢ Lesson Introduction
   o 14 CFR and Publications
   o National Airspace System
   o Navigation Systems and Radar Services
   o Logbook Entries and Certificate Endorsements

Completion Standards:
The student will demonstrate instructional knowledge of the subjects covered during the practice ground instruction session.

UNIVERSITY OF OKLAHOMA

STUDENT NAME ___________________________ ID# __________________
INSTRUCTOR NAME _________________________ CERT# __________________

AIRCRAFT # ___________________ PGI _______ FLIGHT STAGE # ___________ CFI _______ LESSON # ___________ D

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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       TOTAL TIME ______________  ___________________

STUDENT SIGNATURE ___________________________________________
INSTRUCTOR SIGNATURE _________________________________________

DATE:  __________________    ENTERED BY ____________________
TIME:  IN ______________  INVOICE ______  FLIGHT REC ______
  OUT ______________  SYLL. LESSON ____________
  TOTAL __________  PROCESSED ON __________
FLIGHT LESSON 19

Lesson Objective: The student will plan and conduct a flight review. The student will prepare an outline for the flight review before the class period. The outline will include subjects to be covered during the ground portion of the flight review and this flight. The student's outline will comply with applicable FAR's. The student should refer to AC61-98 "Currency and Additional Qualification Requirements for Certificated Pilots" while preparing the outline. The student will ask the instructor for any additional information needed by the student to prepare the outline. This may include type of flying most commonly done, currency, type aircraft flown, and ratings held by the pilot receiving the flight review.

Content:
➢ Lesson Review
  o Determined by the student. The student will explain and demonstrate each maneuver that they have selected for the flight.

Completion Standards:
The student will demonstrate an understanding of the flight review, the applicable regulations, and FAA recommendations. The student's flying and explanations will meet the standards set in the Flight Instructor Practical Test Standards.
FLIGHT LESSON 20

Lesson Objective: During this lesson the student will continue to develop flight instructor competency. The lesson is primarily focused on those tasks in the Flight Instructor Practical Test Standards. If possible, the student will ride with a flight instructor from the Aviation Department other than their regular flight instructor. The objective is to provide different input to the student on how to satisfactorily explain and demonstrate these maneuvers. The student's instructor will select which maneuvers will be performed and may assign others if needed.

Content:
- Lesson Review:
  - Takeoffs and Climbs
    - Normal
    - Crosswind
    - Short Field
    - Soft Field
  - Emergency Approach and Landing (Simulated)
  - Approaches and Landings
    - Normal
    - Crosswind
    - Short Field
    - Soft Field
    - Forward Slip to Landing
    - Go-Around
    - Power-Off 180 Degree Accuracy Approach and Landing

Completion Standards:
The student will perform all flight maneuvers to a commercial pilot skill level while giving effective flight instruction.

UNIVERSITY OF OKLAHOMA

STUDENT NAME ___________________________ ID# __________________
INSTRUCTOR NAME ________________________ CERT# ________________
AIRCRAFT # CRM FLIGHT STAGE # CFI LESSON # 20

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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TOTAL _____________ PROCESSED ON ______________

HOBBS / TAC: IN ________/_______ REMARKS: ______________________
OUT ________/_______ ________________________
TOTAL TIME __________________

STUDENT SIGNATURE _____________________________________________
INSTRUCTOR SIGNATURE ____________________________________
FLIGHT LESSON 21

Lesson Objective: The lesson is primarily focused on those tasks in the Flight Instructor Practical Test Standards. If possible, the student will ride with a flight instructor from the Aviation Department other than their regular flight instructor. The objective is to provide different input to the student on how to satisfactorily explain and demonstrate these maneuvers. The student's instructor will select which maneuvers will be performed and may assign others if needed.

Content:

➢ Lesson Review:
  o Steep Turns
  o Chandelles
  o Lazy Eights
  o Steep Spirals
  o Eights-On-Pylons
  o Stalls
    ▪ Cross Controlled Stalls
    ▪ Elevator Trim Stalls
    ▪ Secondary Stalls
    ▪ Accelerated Stalls
  o As Selected by Flight Instructor

Completion Standards:
The student will perform all flight maneuvers to a commercial pilot skill level while giving effective flight instruction.
FLIGHT LESSON 22

Lesson Objective: During this lesson the student will continue to develop flight instructor competency in complex airplane operations. The flight instructor will select from those listed maneuvers and assign others as needed. The lesson is primarily focused on those tasks in the Flight Instructor Practical Test Standards that require a complex airplane.

Content:

➢ Lesson Review:
  o Takeoffs and Climbs
    ➢ Normal
    ➢ Crosswind
    ➢ Short Field
    ➢ Soft Field
  o Emergency Approach and Landing (Simulated)
  o Systems and Equipment Malfunctions
    ➢ Fire in Flight
    ➢ Engine Failure
    ➢ Engine Overheat
    ➢ Electrical System Malfunction
    ➢ Door Open in Flight
    ➢ Inoperative or Runaway Trim
  o Approaches and Landings
    ➢ Normal
    ➢ Crosswind
    ➢ Short Field
    ➢ Soft Field
    ➢ Power-Off 180 Degree Accuracy Approach and Landing
  o As Assigned by Flight Instructor

Completion Standards:
The student will perform all flight maneuvers to a commercial pilot skill level while giving effective flight instruction.

UNIVERSITY OF OKLAHOMA

STUDENT NAME _______________________________ ID# _________________
INSTRUCTOR NAME ____________________________ CERT# ______________
AIRCRAFT # CRM FLIGHT STAGE # CFI LESSON # 22
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 I OR U: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

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FOR XC FLIGHTS, LIST DESTINATIONS:

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DATE: __________________ ENTERED BY __________________
TIME: IN ___________ INVOICE _____ FLIGHT REC _____
OUT ___________ SYLL. LESSON __________________
TOTAL _________ PROCESSED ON ______________

HOBBS / TAC: IN _______/_______ REMARKS: ________________
OUT _______/_______ _________________________________
TOTAL TIME ______________ ______________________________

STUDENT SIGNATURE ____________________________________________
INSTRUCTOR SIGNATURE __________________________________________
Lesson Objective: This lesson is a stage check conducted by the Chief/Assistant
Chief Flight Instructor or Check Instructor approved by the FSDO. The student must
demonstrate flight instructor proficiency in strict accordance with the current Flight
Instructor (Airplane Single Engine) Practical Test Standards. Note: Several areas of
operation are highlighted to indicate mandatory tasks which must be evaluated and
other tasks selected at random. Random task selection is made during the evaluation.
Therefore, the student must be prepared to demonstrate proficiency in all the listed
tasks.

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 during the test.

- Positive Aircraft Control
- Positive Exchange of Flight Controls Procedure
- Stall/ Spin Awareness
- Collision Avoidance
- Land and Hold Short Operations (LAHSO)
- Runway Incursion Avoidance
- Controlled Flight Into Terrain
- Aeronautical Decision Making and Risk Management
- Wire Strike Avoidance
- Checklist Usage
- Temporary Flight Restrictions (TFR’s)
- Special Use Airspace (SUA)
- Aviation Security
- Single-Pilot Resource Management (SRM)
- Other Areas Deemed Appropriate
FLIGHT LESSON 23 (CONT’D)

Oral Portion of Practical Test

AOI: Fundamentals of Instructing (Task E and At Least One Other Task)

Human Behavior and Effective Communication (Task A)
The Learning Process (Task B)
The Teaching Process (Task C)
Assessment and Critique (Task D)
Instructor Responsibilities and Professionalism (Task E)

Techniques of Flight Instruction (Task F)
Risk Management (Task G)

AOII: Technical Subject Areas (Tasks B, D, M and At Least One Other Task)

Aeromedical Factors (Task A)
Runway Incursion Avoidance (Task B)

Visual Scanning and Collision Avoidance (Task C)
Principles of Flight (Task D)

Airplane Flight Controls (Task E)
Airplane Weight and Balance (Task F)
Navigation and Flight Planning (Task G)
Night Operations (Task H)
High Altitude Operations (Task I)
14 CFR and Publications (Task J)
National Airspace System and Radar Services (Task L)
Logbook Entry and Certificate Endorsements (Task M)

AOIII: Preflight Preparation (At Least One Task)

Certificates and Documents (Task A)
Weather Information (Task B)
Operation of Systems (Task C)
Performance and Limitations (Task D)
Airworthiness Requirements (Task E)

AOIV: Preflight Lesson on a Maneuver to Be Performed In Flight (At least One Maneuver From AO’s VII through XIV)

Task A: Maneuver Lesson
FLIGHT LESSON 23 (CONT’D)

Flight Portion of Practical Test

AOV: Preflight Procedures (At Least One Task)
Preflight Inspection (Task A)
Cockpit Management (Task B)
Engine Starting (Task C)
Taxiing (Task D)
Before Takeoff Check (Task G)

AOVI: Airport Operations (At Least One Task)
Radio Communications and ATC Light Gun Signals (Task A)
Traffic Patterns (Task B)
Airport Runway and Taxiway Sings, Markings and Lighting (Task C)

AOVII: Takeoffs, Landings and Go-Arounds (At Least Two Takeoff and Two Landing Tasks)
Normal and Crosswind Takeoff and Climb (Task A)
Short-Field Takeoff and Climb (Task B)
Soft-Field Takeoff and Climb (Task C)
Normal and Crosswind Approach and Landing (Task F)
Slip To a Landing (Task G)
Go-Around/Rejected Landing (Task H)
Short-Field Approach and Landing (Task I)
Soft-Field Approach and Landing (Task J)
Power-Off 180 Degree Accuracy Approach and Landing (Task K)

AOVIII: Fundamentals of Flight (At Least One Task)
Straight and Level Flight (Task A)
Level Turns (Task B)
Straight Climbs and Climbing Turns (Task C)
Straight Descents and Descending Turns (Task D)

AOIX: Performance Maneuvers (Tasks A or B and C or D)
Steep Turns (Task A)
Steep Spirals (Task B)
Chandelles (Task C)
Lazy Eights (Task D)

AOX: Ground Reference Maneuvers (At Least Task D and One Other Task)
Rectangular Course (Task A)
S-Turns Across a Road (Task B)
Turns Around a Point (Task C)
Eights on Pylons (Task D)
FLIGHT LESSON 23 (CONT’D)

AOXI: Slow Flight Stalls and Spins
   At Least One Proficiency Stall – Task B or C
   At Least One Demonstration Stall – Task D, E, F or H
   Spins - Task G

Maneuvering During Slow Flight (Task A)

Power-On Stalls (Task B)
Power-Off Stalls (Task C)

Cross-Controlled Stalls (Task D)
Elevator Trim Stalls (Task E)
Secondary Stalls (Task F)
Accelerated Maneuver Stalls (Task H)

Spins (Task G) Note: Logbook Endorsement attesting instructional competency acceptable.

AOXII: Basic Instrument Maneuvers (At Least One Task)

AOXIII: Emergency Operations (At Least Tasks A and B)

Emergency Approach and Landing – Simulated (Task A)
System and Equipment Malfunctions (Task B)
Emergency Equipment and Survival Gear (Task C)
Emergency Descent (Task D)

AOIV: Postflight Procedures (Task A)

Completion Standards:

The student will demonstrate proficiency in strict accordance with the current FAA Flight Instructor Practical Test Standards and will be at least equal in scope, depth and difficulty to that practical test.
## Ground Training Syllabus

### Lesson Time Allocation

<table>
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<th>GI Time</th>
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**Stage II**

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**Total** 40.3

*The individual lesson times shown on this table are for instructor/student guidance only, they are not mandatory for a given lesson. However, the total in each category should be attained at the completion of the stage to insure the student will acquire at least the minimum amount of instruction required by FAR Part 141.*
During this stage, the student will develop an understanding of the fundamentals of instructing. The student will understand the learning process, elements of effective teaching, student evaluation, quizzing and testing, course development, lesson planning, and classroom instructing techniques.

Homework: The student will prepare an outline covering the material in each lesson and be prepared to teach the material to be covered in each lesson. For large seminar classes it will not be possible for each student to make a presentation during each class. At the end of each lesson the student will turn in his/her outline. The quality of the outline will be reflected in the overall grade for that lesson.

STAGE COMPLETION STANDARDS

The student has demonstrated through oral and written tests that the prerequisites specified in FAR Part 61.185 (a) and (b) have been met. The student will demonstrate the knowledge and skill necessary to pass the FAA Fundamentals of Instructing Airplane written exam, and to pass an oral exam over Area of Operation I during the Flight Instructor Practical Test.
Ground Lesson 1 – 1.3 Hours

Text Reference: 

Lesson Objective: The purpose of this lesson is to introduce the student to the human behavioral and basic communication theories. The student will develop an understanding of how behavior and communication affect the learning process.

Content:
Chapter 1 - “Human Behavior”
- Definition of Human Behavior
- Human Needs and Motivation
- Human Nature and Motivation
- Human Factors That Inhibit Learning
  - Defense Mechanisms
  - Student Emotional Reactions
- Teaching the Adult Student

Chapter 3 - “Effective Communication”
- Basic Elements of Communication
- Barriers to Effective Communication
- Developing Communication Skills

Completion Standards:
The student will demonstrate instructional knowledge of human behavior and effective communication. The evaluation of the student can take the form of an oral or written quiz or a student demonstration.

STUDENT NAME ___________________________________________ ID# __________________
INSTRUCTOR NAME ____________________________ CERT# __________________
AIRCRAFT # ____________________ GROUND STAGE # CFI - I LESSON # 101
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 I OR U: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

FOR XC FLIGHTS, LIST DESTINATIONS: ____________________________

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TIME: IN ______________ INVOICE _____ FLIGHT REC _____
      OUT ______________ SYLL. LESSON ______________
      TOTAL ______________ PROCESSED ON _____________

REMARKS: ______________________________________________________________
Ground Lesson 2 – 1.3 Hours

Text Reference:

Lesson Objective: The purpose of this lesson is to introduce the student to the human behavioral and basic communication theories. The student will develop an understanding of how behavior and communications affect the learning process.

Content:
- Chapter 2 - "The Learning Process"
  - Introduction
  - Learning Theory
  - Perceptions
  - Insight
  - Acquiring Knowledge
  - Thorndike and the Laws of Learning
  - Domains of Learning
  - Characteristics of Learning
  - Learning Styles
  - Acquiring Skill Knowledge
  - Types of Practice
  - Evaluation Versus Critique
  - Putting It All Together
  - Errors
  - Motivation
  - Maintaining Motivation
  - Memory
  - Retention of Learning
  - Transfer of Learning

Completion Standards:
The student will demonstrate instructional knowledge of human behavior and effective communication. The evaluation of the student can take the form of an oral or written quiz or a student demonstration.
Ground Lesson 3 – TAKE HOME QUIZ

Lesson Objective: The objective of this lesson is to evaluate the student's knowledge of the Flight Instructor Practical Test Standards through a written 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 # | GROUND STAGE # | CFI - I | LESSON # |
| 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 I OR U: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

___________________________________________________________

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FOR XC FLIGHTS, LIST DESTINATIONS: _____________________________

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DATE: ___________________________ ENTERED BY ___________________________

TIME: IN ___________________________ INVOICE ______ FLIGHT REC ______

OUT ___________________________ SYLL. LESSON ___________________________

TOTAL ___________________________ PROCESSED ON __________________________

REMARKS: _____________________________________________________________

____________________________________________________________________

____________________________________________________________________

STUDENT SIGNATURE _________________________________________________

INSTRUCTOR SIGNATURE _____________________________________________
Ground Lesson 4 – 1.3 Hours

Text Reference:

Lesson Objective:
The student will be introduced to the teaching process, teaching methods and the principles of lesson plan and syllabus development.

Content:
➢ Chapter 4 - "The Teaching Process"
  o What is Teaching
  o Instructors Code of Conduct
  o Course of Training
  o Preparation of a Lesson
  o Presentation of a Lesson
  o Organization of Material
    ▪ Introduction
    ▪ Development
    ▪ Conclusion
  o Training Delivery Method
    ▪ Lecture Method
    ▪ Discussion Method
    ▪ Guided Discussion Method
    ▪ Problem Based Learning
    ▪ Electronic Learning
    ▪ Cooperative or Group Learning Method
    ▪ Demonstration-Performance Method
    ▪ Drill and Practice Method
  o Application of the Lesson
  o Assessment of the Lesson
  o Instructional Aids and Training Technologies
  o Test Preparation Material
➢ Chapter 6 – “Planning Instructional Activity”
  o Course of Training
  o Blocks of Learning
  o Training Syllabus
  o Lesson Plans
  o Scenario Based Training
  o Single Pilot Resource Management

Completion Standards:
The student will demonstrate instructional knowledge of the flight instructor techniques and risk management. The evaluation of the student can take the form of an oral or written quiz or a student demonstration.
Ground Lesson 5 – 1.3 Hours

Text Reference:

Lesson Objective:
The student will be introduced to instructional techniques, obstacles and assessment methods unique to flight instruction. The student will also learn about risk management and mitigation in flight operations.

Content:
➢ Chapter 8 - "Techniques of Flight Instruction"
  o Flight Instructor Qualifications
  o Practical Flight Instructor Strategies
  o Obstacles to Learning during Flight Instruction
  o Positive Exchange of Flight Controls
  o Sterile Cockpit Rule
  o Use of Distractions
  o Integrated Flight Instruction
  o Assessment of Piloting Ability
  o Aeronautical Decision-Making
  o Factors Affecting Decision-Making
  o Use of Resources
➢ Chapter 9 – “Risk Management”
  o Defining Risk Management
    ▪ Principles of Risk Management
    ▪ Risk Management Process
  o Level of Risk
  o Assessing Risk
  o Mitigating Risk
  o Three-P Model for Pilots
  o Hazard List for Aviation Technicians
  o Pilot Self-Assessment
  o Situational Awareness
  o Single-Pilot Resource Management
  o Teaching Decision-Making Skills
  o Assessing SRM Skills

Completion Standards:
The student will demonstrate instructional knowledge of the flight instructor techniques and risk management. The evaluation of the student can take the form of an oral or written quiz or a student demonstration.
Ground Lesson 6 – 1.3 Hours

Text Reference:
Aviation Instructor's Handbook FAA-H-8083-9A - Chapter 5 "Assessment"

Lesson Objective: The student will be introduced to critiques and assessments and will gain an understanding of the different methods of critique and evaluation used by an instructor.

Content:
➢ Chapter 5 - "Assessment"
  o Terminology
  o Purpose of Assessment
  o General Characteristics of Effective Assessment
  o Traditional Assessment
  o Authentic Assessment
  o Choosing an Effective Assessment Method
  o Critiques and Oral Assessments

Completion Standards:
The student will demonstrate instructional knowledge of the use of critique as an instructional tool, different methods of evaluation, and how instructional aids can be used to improve communication. The evaluation of the student can take the form of an oral or written quiz or a student demonstration.
Ground Lesson 7 – 1.3 Hours

Text Reference: 
Aviation Instructor’s Handbook FAA-H-8083-9A - Chapter 7 “Instructor Responsibilities and Professionalism”

Lesson Objective: The student will learn about the factors associated with performing the flight instructor’s job in a professional manner and the responsibilities placed upon the instructor during the performance of that job.

Content:
➢ Chapter 7 - “Flight Instructor Characteristics and Responsibilities”
   o Aviation Instructor Responsibilities
     ▪ Helping Students Learn
     ▪ Providing Adequate Instruction
     ▪ Standards of Performance
     ▪ Emphasizing the Positive
     ▪ Minimizing Student Frustrations
   o Flight Instructor Responsibilities
   o Aviator’s Model Code of Conduct
   o Safety Practices and Accident Prevention
   o Professionalism
     ▪ Sincerity
     ▪ Acceptance of the Student
     ▪ Personal Appearance and Habits
     ▪ Demeanor
     ▪ Proper Language
   o Evaluation of Student Ability
     ▪ Demonstrated Ability
     ▪ Keeping the Student Informed
     ▪ Correction of Student Errors
   o Aviation Instructors and Exams
   o Professional Development
     ▪ Continuing Education
     ▪ Sources of Material

Completion Standards:
The student will demonstrate instructional knowledge of the elements of flight instructor characteristics and responsibilities. The evaluation of the student can take the form of an oral or written quiz or a student demonstration.
Ground Lesson 8 – 1.3 Hours

Text Reference:

Lesson Objective:
The student will learn about endorsements related to flight reviews, aircraft check out, additional training and applications for an airman certificate or rating. The student will also learn about student pilot endorsements

Content:
- Chapter E - "Flight Instructor Endorsements"
  - Sport Pilot
  - FAA Forms 8710-1 and 8710-11
  - Instructor Records
  - Knowledge Tests
  - Additional Training and Endorsements
  - Flight Reviews
  - Instrument Proficiency Checks
  - Aircraft Checkouts/Transitions
  - Pilot Proficiency
  - Endorsements
  - Integrated Airman Certification and/or Rating Application (IACRA)
- AC 61-65, Appendix 1 “Student Pilot Endorsements”
  - Presolo Aeronautical Knowledge
  - Presolo Flight Training
  - Presolo Flight Training at Night
  - Solo Flight (each additional 90 day period)
  - Solo Takeoffs and Landings at another airport within 25 nm
  - Initial solo Cross-Country Flights Within 50 nm of departure airport
  - Solo flight in Class B Airspace
  - Solo Flight To, Frm or At Airport Located in Class B Airspace
  - Student Pilot Seeking Sport Pilot Certificate Endorsements

Completion Standards:
The student will demonstrate instructional knowledge of flight instructor endorsements. The evaluation of the student can take the form of an oral or written quiz or a student demonstration
Ground Lesson 9 – 1.3 Hours

Lesson Objective: This lesson consists of a written take home exam and an oral exam to evaluate the student’s comprehension of the material presented in *Aviation Instructor's Handbook* in preparation for the Fundamentals of Instruction written exam and the Certified Flight Instructor - Airplane practical exam.

Content:
Stage I Written Exam
Stage I Oral Exam

Completion Standards:
This lesson and stage are complete when the student has completed both the written and oral exams with a minimum passing score of 70%.
During this stage, the student will gain instructional knowledge of all tasks listed in Areas of Operation II, III and IV of the Flight Instructor Practical Test Standards.

**Homework:** The student will prepare an outline covering the material in each lesson and be prepared to teach the material to be covered in each lesson. For large seminar classes it will not be possible for each student to make a presentation during each class. At the end of each lesson the student will turn in his or her outline. The quality of the outline will be reflected in the overall grade for that lesson.

**STAGE COMPLETION STANDARD**

This stage is complete when the student has taken the Stage II written exam with a minimum passing score of 70%. The student will demonstrate the knowledge and skill necessary to pass the FAA Flight Instructor Airplane written exam, and to pass an oral exam over Area of Operation II during the Flight Instructor Practical Test.
Ground Lesson 10 – 5.2 Hours

Text Reference:

Lesson Objective:
During this lesson, the student will review the basic aerodynamics, aircraft structure, and flight control systems.

Content:

➢ Aircraft Structure
  o Major Components
  o Fuselage
  o Wings
  o Empennage
  o Landing Gear
  o Power Plant

➢ Airplane and Airfoil Design
  Characteristics
  o Wing Planforms (Aspect Ratio, rectangular, elliptical, tapered, swept back, delta)
  o Airfoil Design (Chamber, leading edge, trailing edge, chord line, angle of incidence)

➢ Principles of Flight
  o Bernoulli’s Principle and Newton’s Third Law
  o Lift Equation
  o Relative Wind, Angle of Attack, Downwash
  o Stalls

STUDENT NAME ___________________________ ID# ____________________
INSTRUCTOR NAME ___________________________ CERT# ____________________
AIRCRAFT # ___________________ GROUND STAGE # ___________________
CFI—I LESSON # 210

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

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DATE: ___________________ ENTERED BY ___________________
TIME: IN _____________ INVOICE _____ FLIGHT REC _____
OUT _____________ SYLL. LESSON ___________________
TOTAL _____________ PROCESSED ON ___________________

REMARKS: _________________________________________________________
____________________________________________________
____________________________________________________

STUDENT SIGNATURE _________________________________
INSTRUCTOR SIGNATURE _________________________________

Dl  So  Dnt  Snt  Dxc  Sxc  Idl  Nldg  AATD  CA  PP  GI

DATE: ___________________ ENTERED BY ___________________
TIME: IN _____________ INVOICE _____ FLIGHT REC _____
OUT _____________ SYLL. LESSON ___________________
TOTAL _____________ PROCESSED ON ___________________

REMARKS: _________________________________________________________
____________________________________________________
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STUDENT SIGNATURE _________________________________
INSTRUCTOR SIGNATURE _________________________________
Forces Acting on the Airplane in Flight
- Lift, Weight, Thrust and Drag (Induced & Parasite)
- Relationship Between Speed, Angle of Attack and Induced/Parasite Drag
- Relationship Between Thrust and Drag; Lift and Weight in Straight and Level Flight, Climbs and Descents
- Forces Acting On An Airplane In Turns
- Factors Affecting Lift and Drag
- Ground Effect

Forces Acting on a Propeller

Turning Tendency (Torque Effect)
- Torque Reaction
- Spiraling Slipstream
- Gyroscopic Precession
- Asymmetric Propeller Loading (P-Factor)
- Corrections for Turning Tendency
Ground Lesson 10 – (Cont)

➢ Airplane Stability
  o Positive, Neutral and Negative Static and Dynamic Stability
  o Longitudinal Stability about the Lateral Axis
  o Longitudinal Control about the Lateral Axis
  o Lateral Stability about the Longitudinal Axis
  o Lateral Control about the Longitudinal Axis
  o Lateral Stability or Instability in Turns
  o Directional Stability about the Vertical Axis
  o Directional Control about the Vertical Axis

➢ Loads and Load Factors
  o Effect of Turns on Load Factor
  o Effect of Load Factor on Stalling Speed
  o Effect of Speed on Load Factor
  o Effect of Turbulence on Load Factor
  o Structural Integrity and Velocity/Load Factor Chart
Primary Flight Control Systems
- Ailerons
- Rudder
- Elevator and Stabilator

Secondary Flight Control Systems
- Elevator Trim (Servo Tab)
- Stabilator Trim (Anti Servo Tab)
- Aileron and Rudder Trim (Fixed and Adjustable)
- Balance Tabs
- Leading Edge Devices
- Flaps
  - Purpose: Increase Descent Rate Without Increasing Speed
  - How Deployment Affects Lift (Changing Chord Line, Surface Area and Drag)
  - Types: (Plane, Split, Slotted, Fowler)

Wing Tip Vortices
- Causes and Generation
- Factors That Affect Strength
- Behavior/Movement
- Precautions To Be Taken (Avoidance)

Completion Standards:
The student will demonstrate instructional knowledge of the principles of flight, control surfaces, and trim devices. The evaluation of the student can take the form of an oral or written quiz or a student demonstration.
Ground Lesson 11 – TAKE HOME QUIZ

Lesson Objective: The objective of this lesson is to evaluate the student's knowledge of aerodynamics through a written 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.
Ground Lesson 12 – 3.9 Hours


Lesson Objective: This lesson is a review of Private and Commercial Pilot Knowledge requirements in the areas of aircraft systems, flight instruments, and engine systems. The student will also develop an understanding of methods used to teach these subject areas.

Content:

➢ Powerplant/Propeller
  o Reciprocating Engines
  o Propeller Fixed/Adjustable
  o Induction Systems
    -- Carburetor Systems
    -- Fuel Injection Systems
    -- Super/Turbochargers
  o Ignition System
  o Oil System
  o Engine Cooling
  o Engine Exhaust
  o Engine Starting
  o FADEC

➢ Environmental (Heating and Cooling Systems)

➢ Fuel System

➢ Electrical System

➢ Hydraulic System
Ground Lesson 12 – (Cont)

➢ Landing Gear Systems
➢ Pressurization Systems
➢ Oxygen Systems (Different Regulator Types and Altitudes of Use)
➢ Anti-Ice and Deice Systems
   o Wings (Pneumatic Boots and Weeping Wing)
   o Propellers (Electric Boots and Glycol)
   o Windshield (Electric, Air Defrost and Glycol)
   o Pitot Tube and Fuel Vents (Electric)
   o Engine Intake (Heated Air and Inertial)
➢ The Pitot-Static System and Associated Instruments
   o Impact Pressure Chamber and Lines
   o Static Pressure Chamber and Lines
   o Altimeter and Types of Altitude
   o Vertical Speed Indicator
   o Airspeed Indicator and Types of Airspeed
Ground Lesson 12 – (Cont)

➢ Electronic Flight Display
  o Primary Flight Display (PFD)
  o Multi-Function Flight Display (MFD)

➢ Gyroscopic flight Instruments
  o Sources of Power for Gyroscopic Operation
  o Gyroscopic Principles
  o Turn Coordinator
  o Heading Indicator
  o Attitude Indicator

➢ Magnetic Compass
  o Magnetic Dip
  o Compass Errors
    o As a function of latitude
    o Acceleration errors
    o Lead/Lag errors in turns
  o Using the Magnetic Compass

Completion Standards:
The student will demonstrate instructional knowledge of flight instruments, engine systems, and aircraft systems, and high altitude operations. The evaluation of the student can take the form of an oral or written quiz or a student demonstration.
Ground Lesson 13 – TAKE HOME QUIZ

Lesson Objective: The objective of this lesson is to evaluate the student's knowledge of aircraft and engine systems through a written 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 # GROUND GROUND STAGE # CFI-I LESSON # 213
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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REMARKS: ____________________________________________________________
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STUDENT SIGNATURE ________________________________________________
INSTRUCTOR SIGNATURE ____________________________________
Ground Lesson 14 – 3.9 Hours

Text Reference:

Lesson Objective: During this lesson, the student will review private and commercial pilot flight maneuvers. The student will increase his understanding of these maneuvers and develop instructional knowledge of these maneuvers to include the ability to describe what the maneuver is, how to do it and common errors in the execution of these maneuvers.

Content:

➢ Ground Operations
  o Visual Inspection
  o Cockpit Management
  o Engine Start
  o Taxiing
  o Pretake-off Check

➢ Takeoffs and Climbs
  o Normal Takeoff and Climb
  o Crosswind Takeoff and Climb
  o Soft Field Takeoff and Climb
  o Departure Considerations
  o Decision Making - Considerations For Combined Soft/Short Field Or Crosswind/Soft Field Takeoffs.
Ground Lesson 14 – (Cont)

➢ Fundamentals of Flight
  o Straight and Level Flight
  o Level Turns
  o Climbs
  o Descents

➢ Fundamentals of Instrument Flight
  o Straight and Level
  o Level Turns
  o Climbs
  o Descents
  o Recovery From Unusual Attitudes

➢ Stalls, Spins and Maneuvering During Slow Flight
  o Power-On Stalls
  o Power-Off Stalls
  o Accelerated Stalls
  o Crossed-Control Stalls
  o Elevator Trim Stalls
  o Secondary Stalls
  o Spins
  o Maneuvering During Slow Flight

➢ Performance Flight Maneuvers
  o Steep Turns
  o Chandelles
  o Lazy 8
  o Steep Spirals

UNIVERSITY OF OKLAHOMA

STUDENT NAME _______________________________ ID# ________________
INSTRUCTOR NAME ____________________________ CERT# ______________
AIRCRAFT # GROUND GROUND STAGE # CFI-I LESSON # 214
SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION____

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

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DATE: __________________ ENTERED BY _________________________
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      OUT ____________ SYLL. LESSON ______________
      TOTAL ____________ PROCESSED ON ______________

REMARKS: __________________________________________________
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STUDENT SIGNATURE ________________________________
INSTRUCTOR SIGNATURE __________________________________________
Ground Lesson 14 – (Cont)

➢ Ground Reference Maneuvers
  o Rectangular Course
  o S-Turns Across a Road
  o Turns Around a Point
  o Eights on Pylons

➢ Emergency Operations
  o Emergency Approach and Landing
  o Emergency Descent
  o Systems and Equipment Malfunctions
  o Emergency Equipment and Survival Gear

➢ Approaches and Landings
  o Traffic Pattern
  o Normal Approach and Landing
  o Crosswind Approach and Landing
  o Forward Slip to a Landing
  o Go-Around
  o Soft Field Approach and Landing
  o Short Field Approach and Landing
  o Power-Off 180 Degree Accuracy Approach and Landing
  o Faulty Approach and Landings
  o Decision Making – Considerations For Combined Short/Soft Field or Crosswind/Soft Field Approaches and Landings

➢ After-Landing Procedures

Completion Standards:
The student will demonstrate instructional knowledge of private and commercial pilot flight maneuvers. The student will also demonstrate an understanding of the different teaching methods used during flight instruction. The evaluation of the student can take the form of an oral or written quiz or a student demonstration.
Ground Lesson 15 – 2.6 Hours

Text Reference: 

Lesson Objective: During this lesson the student will review the factors affecting aircraft performance, performance calculations, and weight and balance. The student should also develop instructional knowledge of these subjects.

Content:

- Weight Control
  - Effects of Weight
  - Weight Changes

- Balance, Stability and Center of Gravity
  - Effects of Adverse Balance
  - Management of Weight and Balance Control
  - Terms and Definitions
  - Control of Loading-General Aviation Airplanes
  - Basic Principles of Weight and Balance Computations
  - Weight and Balance Restrictions

- Determining Loaded Weight and Center of Gravity
  - Computational Method
  - Graph Method
  - Table Method
  - Shifting, Adding, and Removing Weight

UNIVERSITY OF OKLAHOMA

STUDENT NAME _______________________________ ID# __________________

INSTRUCTOR NAME ____________________________ CERT# __________________

AIRCRAFT # ______ GROUND STAGE # ______ CFI-I LESSON # 215

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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TOTAL _______ PROCESSED ON ________

REMARKS: _________________________________________________________
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INSTRUCTOR SIGNATURE __________________________________________
Ground Lesson 15 – (Cont)

➢ Airplane Performance
  o Importance of Performance Data
  o Structure of the Atmosphere – Density and Pressure Altitude
  o Performance – Straight/Level, Climb, Range, Ground Effect, Reversed Command, Runway Gradient, Dynamic Hydroplaning
  o Takeoff and Landing Performance
  o Performance Speeds
  o Performance Charts – Interpolation, Density Altitude Charts, Takeoff Charts, Climb and Cruise Charts
  o Crosswind and Headwind Component Chart
  o Landing Charts
  o Stall Speed Performance Charts

Completion Standards:
The student will demonstrate instructional knowledge of aircraft performance, performance charts, and weight and balance. The evaluation can be oral discussion, practical demonstration, or quizzing.
Lesson Objective: This lesson will allow the student to strengthen knowledge of runway incursion avoidance as well as visual scanning and collision avoidance. The student will develop instructional knowledge of these subject areas.

Content:

- Runway Incursion Avoidance
  - Taxi Route Planning/Briefing
    - ATC Clearances (Taxi Route, Runway Crossing, Hold Short, Line Up and Wait, Cleared For Takeoff, Land and Hold Short, Go Around, Cleared to Land
    - Writing Down Clearances
    - Clearance Read Back
    - Use of Airport Diagram
  - Progressive Taxi
  - Hot Sports
  - Clearing Final Before Takeoff and Landing
  - Minimizing Distractions (Sterile Cockpit)
  - Hazards of Taxiing Between Parallel Runways
  - Hazards of Exiting a Taxiway Near Another Runway
  - Uncontrolled Airport Taxi, Takeoff and Landing Considerations
  - Low Visibility Operations
  - Land and Hold Short Operations

- Visual Scanning and Collision Avoidance
  - Relationship Between Physical Condition and Vision
  - Environmental Conditions That Degrade Vision
  - Vestibular Illusions
  - Visual Scanning Procedures For See and Avoid
  - Clearing Procedures (Maneuvers and Turns)
  - Aircraft Blind Spots
  - Speed Versus Collision Risk
  - Situations With Greatest Collision Risk

Completion Standards:
The student instructional knowledge of runway incursion avoidance as well as visual scanning and collision avoidance. The evaluation can be oral discussion, practical demonstration, or quizzing.
Ground Lesson 17 – 2.6 Hours

Text Reference:
Aviation Weather Services AC00-45F
Aeronautical Information Manual – Chapter 7, Section 1, “Meteorology.”

Lesson Objective: This lesson will allow the student to strengthen knowledge of aviation weather and weather reporting. The student will develop instructional knowledge of these subject areas as well as recognition of critical weather situations, both on the ground and in the air, and procurement and use of weather reports and forecasts.

Content:

➢ Observations
  o Surface
  o Upper Air
  o Radar

➢ Service Outlets
  o FAA Flight Service Station (FSS)
  o Transcribed Information Briefing Service (TIBS)
  o Direct User Access Terminal Service (DUATS)
  o Enroute Flight Advisory Service (EFAS) (Flight Watch)
  o Hazardous In-Flight Advisory Service (HIWAS)
  o Transcribed Weather Broadcast (TWEB)
  o Other Computer Based Systems (WSI, DTN, Internet)

UNIVERSITY OF OKLAHOMA

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

AIRCRAFT # ______ GROUND STAGE # ______ CFI-I LESSON # 217

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 ___________
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REMARKS: ______________________________________________________
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STUDENT SIGNATURE ____________________________________________
INSTRUCTOR SIGNATURE _________________________________________
Ground Lesson 17 – (Cont)

➢ Weather Briefings
  o Standard Briefing
  o Abbreviated Briefing
  o Outlook Briefing

➢ Aviation Weather Reports
  o Aviation Routine Weather Report (METAR)
  o Pilot Weather Reports (PIREPs)
  o Radar Reports (RAREPs)

➢ Aviation Forecasts
  o Terminal Aerodrome Forecasts (TAF)
  o Area Forecasts
  o In-Flight Weather Advisories (AIRMET, SIGMET, WST, CWA)
  o Winds and Temperature Aloft Forecast (FD)

➢ Weather Charts
  o Surface Analysis
  o Weather Depiction
  o Radar Summary
  o Significant Weather Prognostication
  o Convective Outlook

➢ Weather Considerations In Making the Go/No-Go Decision

Completion Standards:

The student will demonstrate instructional knowledge of weather, weather report formats and use, and recognition of critical weather situations and factors to be considered in making the go/no-go decision. The evaluation can be oral discussion, practical demonstration, or quizzing.
Ground Lesson 18 – 3.9 Hours

Text Reference:

Lesson Objective: The student will review available information in the areas of airport operations, airspace, air traffic control, and night operations to develop instructional knowledge of these subject areas.

Content:

➢ Airport Operations
  o Types of Airports
  o Sources For Airport Data
  o Airport Markings and Signs
  o Airport Lighting
  o Wind Direction Indicators
Ground Lesson 18 – (Cont)

➢ Airspace
  o Controlled Airspace (A, B, C, D, E)
  o Uncontrolled Airspace (G)
  o Special Use Airspace
  o Special Flight Rules Areas
  o Temporary Flight Restrictions (TFR’s)
  o Other Airspace Areas
  o Identification of Airspace and Features On a VFR Sectional Chart
  o Identification of Potential Hazards On a VFR Sectional Chart
    (Power Lines, Radio Towers, Parachute Operations, Military Training Routes, Topography)
Ground Lesson 18 – (Cont)

➢ Night Operations
  o Night Vision
  o Night Illusions
  o Pilot Equipment
  o Airplane Equipment and Lighting
  o Airport and Navigation Lighting Aids
  o Preparation and Preflight
  o Starting, Taxiing and Runup
  o Takeoff and Climb
  o Orientation and Navigation
  o Approaches and Landings
  o Night Emergencies

Completion Standards:
The student will demonstrate instructional knowledge of airport operations, airspace, air traffic control, and night operations. The evaluation can be oral discussion, practical demonstration, or quizzing.

UNIVERSITY OF OKLAHOMA

STUDENT NAME ____________________________ ID# _________________

INSTRUCTOR NAME ____________________________ CERT# ______________

AIRCRAFT #__ GROUND__ GROUND STAGE #__ CFI-I LESSON # 218

SAT ____%  UNSAT ____%  INCOMPLETE ____%  CANCELLATION_____

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

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

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DATE: __________________ ENTERED BY __________________

TIME: IN ____________  INVOICE ____  FLIGHT REC____

OUT ____________  SYLL. LESSON ____________

TOTAL ____________  PROCESSED ON ______________

REMARKS: ________________________________

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STUDENT SIGNATURE ___________________

INSTRUCTOR SIGNATURE ___________________
Ground Lesson 19 – 1.3 Hours

Text Reference:
Pilot's Handbook of Aeronautical Knowledge FAA-H-8083-25A – Chapter 15
"Navigation,"

Lesson Objective: The student will review and develop instructional knowledge of
the different facets of VFR cross country navigation including aeronautical charts,
navigational calculations, radio navigation, publications, and cross country
emergencies.

Content:

➢ Decision Making – Importance of Weather Check and the Go/No-Go Decision
➢ Navigation
  o Aeronautical Charts and Importance of Using Current Charts
  o Plotting a Course
  o Selection of Fuel Stops and Alternates
  o Fundamentals of Pilotage – Checkpoint Selection (Day and Night)
  o Fundamentals of Dead Reckoning
    -- Calculation of Compass Heading, Ground Speed, Time Enroute and
    Fuel Consumption
    -- Completion and Use of a Flight Log
  o Radio Navigation (Including VOR Cross Check)
  o ATC Services – Flight Following
➢ Flight Information Publications
  o Aeronautical Information Manual
  o Airport Facility Directory
  o Notices to Airman
  o Commercial Publications
➢ Single Pilot Resource Management
  o Management of essential materials and equipment
  o Passenger Briefing
  o Use of Resources Inside and Outside the cockpit
➢ Cross Country Emergencies
  o Diversion to an Alternate
  o Lost Procedures
  o ATC Services
    -- Contact 121.5, Climb, Communicate, Confess and Comply (4 “C’s”)
  o Inadvertent VFR Flight into IFR Conditions
  o Night Emergencies
  o ELT Use/Search and Rescue

Completion Standards:
The student will demonstrate instructional knowledge of aeronautical charts,
navigational calculations, radio navigation, flight information publications, and cross
country emergencies. The evaluation can be oral discussion, practical demonstration,
or quizzing.
Lesson Objective: The objective of this lesson is to evaluate the student's knowledge of VFR cross-country planning, pilotage, dead reckoning, and radio navigation, through a written 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

STUDENT NAME __________________________ ID# __________________________
INSTRUCTOR NAME __________________________ CERT# __________________________

AIRCRAFT #  GROUND  GROUND STAGE #  CFI-I  LESSON #  220

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 ________________

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STUDENT SIGNATURE ____________________________________________
INSTRUCTOR SIGNATURE ________________________________________
Ground Lesson 21 – 1.3 Hours

Text Reference:
Federal Aviation Regulations

Lesson Objective: During this lesson, the student will review FAR's applicable to the Private, Commercial, and Flight Instructor certificates. The student will also complete the on line TSA Flight School Security Awareness Training.

Content:
➢ Availability and Method of FAR Revisions

➢ Purpose and General Content of:
  o 14 CFR Part 1
  o 14 CFR Part 61
  o 14 CFR Part 67
  o 14 CFR Part 71
  o 14 CFR Part 73
  o 14 CFR Part 91
  o 49 CFR NTSB 830
  o 49 CFR TSA 1552

➢ Publications
  o Advisory Circulars
  o Aeronautical Information Manual
  o Commercial Publications

Completion Standards:

The student will demonstrate instructional knowledge of the general content of the above federal regulations and present a graduation certificate for completion of the on line TSA Flight School Security Awareness Training Course.
Ground Lesson 22 – TAKE HOME QUIZ

Lesson Objective: The objective of this lesson is to evaluate the student's knowledge of Federal Aviation Regulations-Part 61 through a written 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.
Ground Lesson 23 – 1.3 Hours

Text Reference:
*Pilots Handbook of Aeronautical Knowledge* - FAA-H-8083-25A, Chapter 8, “Flight Manuals and Other Documents”

Lesson Objective: The student will review and develop instructional knowledge in airplane flight manuals, aircraft documents, aircraft maintenance, and aircraft owner/operator responsibilities.

Content:

- **Airplane Flight Manuals**
  - Preliminary
  - General
  - Limitations
  - Emergency Procedures
  - Normal Procedures
  - Performance
  - Weight and Balance/Equipment List
  - Systems Description
  - Handling
  - Service and Maintenance
  - Supplements
  - Safety Tips

- **Aircraft Documents**
  - Registration (Including Expiration Date)
  - Airworthiness Certificate

- **Airworthiness**
  - Aircraft Logbooks (airframe, power plant, propeller)
    -- Determining Compliance With Inspection Requirements and Airworthiness Directives
  - Required Instruments/Equipment For Day/Night VFR
  - Procedures For Determining Airworthiness of Aircraft With Inoperative Equipment (With and Without an MEL)
  - Inspections (Annual, 100 Hour, Altimeter/Pitot Static, Transponder, ELT)
  - Preventive Maintenance
  - Repairs and Alterations
  - Special Flight Permits
  - Airworthiness Directives
  - Factory Service Bulletins
  - Owner/Operator Responsibilities

Completion Standards:
The student will demonstrate instructional knowledge of the elements related to the use of an approved minimum equipment list and the regulations that cover aircraft certification, maintenance, and inspection. The evaluation can be oral discussion, practical demonstration, or quizzing.
Ground Lesson 24 – 1.3 Hours

Text Reference:
Aeronautical Information Manual – Chapter 8, “Medical Facts for Pilots.”

Lesson Objective: During this lesson, the student will review aviation physiology and become familiar with instructional aspects of the subject area.

Content:
➢ Medical Certificates
  o How to Obtain an Appropriate Medical Certificate
  o How to Obtain a Medical Certificate in the Event of a Possible Medical Deficiency

➢ The Symptoms, Effects, and Corrective Action for:
  o Hypoxia
  o Hyperventilation
  o Middle Ear and Sinus Problems
  o Spatial Disorientation
  o Motion Sickness
  o Carbon Monoxide Poisoning
  o Nitrogen Excesses During Scuba Dives
  o Fatigue and Stress
  o Dehydration

➢ Effects of Alcohol and Drugs

➢ Vision in Flight
  o Empty-Field Myopia
  o Night Vision – Autokinesis, False Horizon, Night Landing Illusions

Completion Standards:
The student will demonstrate instructional knowledge of physiology. The evaluation of the student can take the form of an oral or written quiz or a student demonstration.

UNIVERSITY OF OKLAHOMA
STUDENT NAME _______________________________ ID# __________________
INSTRUCTOR NAME ____________________________ CERT# ______________
AIRCRAFT # GROUND GROUND STAGE # CFI-I LESSON # 224
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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TOTAL _______________ PROCESSED ON ________________
REMARKS: ______________________________________
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STUDENT SIGNATURE _________________________________________
INSTRUCTOR SIGNATURE _____________________________________
Ground Lesson 25 – 1.3 Hours

Lesson Objective: The exam administered during this lesson evaluates the student's comprehension of the aeronautical knowledge requirements for the private, commercial, and flight instructor certificates in preparation for the Certified Flight Instructor - Airplane written and practical exam.

Content:
Stage II Exam

Completion Standards:
This lesson and stage are complete when the student has completed the exam with a minimum passing score of 70%.
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 a FTD lesson may be flown in an aircraft, AATD or PCATD. 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 have satisfactorily completed all required ground school courses and have completed the minimum flight time stated at the end of the course for each category as well as total flight time.
APPENDIX C
UNIVERSITY OF OKLAHOMA
PRACTICE AREAS

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.