

**UNIVERSITY OF OKLAHOMA
DEPARTMENT OF AVIATION
COMMERCIAL PILOT CERTIFICATION COURSE
2021-09-17**

This course fulfills the requirements of 14 CFR, Section 141, Appendix D for obtaining a commercial pilot certificate with airplane category, single engine land class rating.

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

COURSE COMPLETION STANDARD: The student will demonstrate through written tests, oral tests, flight tests, and show through appropriate records that the knowledge, skill, and experience requirements necessary to obtain a commercial pilot certificate have been met. The specific requirements for each test and stage check are described in the appropriate syllabus lesson. Prior to the completion of flight training the student will pass the FAA Commercial Pilot Airplane Knowledge Test (minimum passing score 70%). At the completion of flight training syllabus the student will pass the end of course stage check, based on the current Commercial Pilot – Airplane Airman Certification Standards (ACS).

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, PA28-181* 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. Airplanes used for instrument training are equipped for IFR as specified in 14 CFR, 91.205. The PA28-181 and two PA28-161's (N4900U and N4930U) are Technically Advanced Aircraft (TAA) as defined by 14CFR 61.129(j). *The use of the PA28-181 was discontinued on 4/1/2021.

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 a 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.

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 – Airplane ACS and will be at least equal in scope, depth, and difficulty to that practical test.

**UNIVERSITY OF OKLAHOMA
DEPARTMENT OF AVIATION
COMMERCIAL PILOT CERTIFICATION COURSE
RULES OF OPERATION**

DISPATCH PROCEDURES - The provisions of 14 CFR, Section 91.103 will be met prior to aircraft dispatch. For both dual and solo flights the instructor will provide a preflight briefing to the student. The instructor's signature on the syllabus sheet for that lesson constitutes permission to dispatch the aircraft. The student will check the scheduling clipboard to determine which aircraft is assigned for the flight and complete the information on the Aircraft Sign Out Sheet, the Plastic Flight Plan form and the Aircraft Information Sheet in the aircraft checklist binder. A flight plan will be filed with an Automated Flight Service Station for all cross country flights. For all solo cross country flights the student will also complete a Cross Country Sign Out form (available in the dispatch area). Aircraft keys are kept in a lock box in the dispatch area and will be issued upon completion of the above procedures.

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 windshield of the aircraft (this sign is in a loose leaf binder in the aircraft).
- Complete Form OUAVMAIN #2 (copies of this form are in a loose leaf binder in the aircraft). When filling out the "Maintenance Problem" section, be as specific as possible. Provide the top copy to the mechanics in the hangar and place the yellow copy on the Aircraft Sign Out Sheet. If the mechanics are not available, place the top copy of the form in the maintenance in-box in the dispatch section. If the main office is closed, put both copies of the form in the envelope slot in the hangar door.
- Upon returning to the dispatch area, turn the plastic flight plan over so that the words "No Fly" are displayed. Note: If the main office is locked and this can't be done, the "Maintenance Required" sign in the aircraft serves as notification that the aircraft is not airworthy.
- Notify the director, the chief flight instructor or one of the assistant chief flight instructors as soon as possible.

APPROVAL FOR RETURN OF AIRCRAFT TO SERVICE: The mechanics will take whatever corrective actions are required to return the aircraft to service. Upon returning the aircraft to service the mechanics will place the "Maintenance Required" sign back in the 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.

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DEPARTMENT OF AVIATION
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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.

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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.

UNIVERSITY OF OKLAHOMA
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COMMERCIAL PILOT CERTIFICATION COURSE

COMMERCIAL PILOT STAGE X
LESSON TIME ALLOCATION

<i>LESSON</i>	<i>DUAL</i>	<i>SOLO</i>	<i>DL NITE</i>	<i>SO NITE</i>	<i>DL XC</i>	<i>SOLO XC</i>	<i>INST DL</i>	<i>TAA</i>
1	1.0							
2	1.0							
3		2.0						
4	1.0							
5	2.0						0.8	1.0
6		3.0						
7	2.0						0.8	1.0
8	1.0							
9	1.0							
10		3.0				3.0		
11	1.0		1.0					
12		1.0		1.0				
13		1.0		1.0				
14		3.0						
15	2.0						0.8	1.0
16	2.0						1.6	2.0
17		3.0						
18	1.0							
19	2.0						0.7	
20		3.0						
21	2.0							
22	1.0							
23								
24	1.0							
TOTAL	21.0	19.0	1.0	2.0*		3.0	4.7	5.0
GRAND** TOTAL (IV, V, X)	55.0	65.0	8.0	7.0*	12.0	32.0	13.0	10.0

*By the completion of Stage X the student will have completed 10 solo takeoffs and landings at night (with each landing involving a flight with a traffic pattern) at an airport with an operating control tower.

**These are the minimum times in each flight category for course completion

DL NGT = Dual Night DL XC = Dual Cross Country SO XC = Solo Cross Country
 INST DL = Instrument TAA = Technologically Advanced Aircraft

**UNIVERSITY OF OKLAHOMA
COMMERCIAL CERTIFICATION COURSE
STAGE X**

STAGE OBJECTIVE

The objective of this stage is for the student to complete the course requirements and attain the proficiency level required of an instrument/commercial pilot.

STAGE COMPLETION STANDARDS

At the completion of this stage, the student must be able to demonstrate all flight maneuvers and procedures at the proficiency level of an instrument/commercial pilot. The student also will successfully complete the final stage tests and stage checks.

STAGE X FLIGHT LESSON 1 DUAL - LOCAL
UNIVERSITY OF OKLAHOMA

LESSON OBJECTIVE: This lesson provides a review of basic ground reference maneuvers, steep power turns and chandelles. The student should begin developing precise airplane control when operating near the performance limits of the airplane.

CONTENT:
Lesson Review

- Private Pilot Ground Reference Maneuvers Assigned by the Instructor
- Maneuvering During Slow Flight
- Simulated Emergency Procedures
 - Emergency Descent
 - Emergency Approach and Landing
 - System and Equipment Malfunctions
- Steep Turns
- Chandelles

COMPLETION STANDARDS:

The lesson is complete when the student can perform basic ground reference maneuvers to the standards of the Private Pilot Airman Certification Standards. Simulated emergency procedures will be to the standards of the Commercial Pilot Airman Certification Standards. Steep Turns and Chandelles will be performed to the standards of the Commercial Pilot Airman Certification Standards with the following exceptions:

- Steep Turns: Altitude +/- 150 feet, roll out heading +/-15 degrees
- Chandelles: Roll out heading +/- 15 degrees

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # X LESSON # 1001

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: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	TAA	PP	GI
?										?	

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 _____

STAGE X LESSON 2 DUAL - LOCAL
UNIVERSITY OF OKLAHOMA

LESSON OBJECTIVE: The objective of this lesson is to review systems and basic flight operations.

CONTENT:
Lesson Introduction

Preflight Preparation and Procedures

- Certificates and Documents
- Operation of Airplane Systems
- Determining Performance and Limitations
- Use of Checklists
- Cockpit Management
- Visual Inspection
- Engine Starting
- Taxiing
- Pretakeoff Check
- Minimum Equipment List
- Airport Operations

Takeoffs and Landings

- Normal
- Crosswind

Climbs and Descents

Steep Turns

Cruise Procedures

Power Settings and Mixture Leaning

Use of Constant-Speed Propeller and Effects Upon Aircraft Performance

Use of Retractable Landing Gear and Flaps

Go-Around From Rejected (Balked) Landing

Post Flight Procedures

COMPLETION STANDARDS:

At the completion of the flight, the student should display a working knowledge of the airplane systems. Tasks will be performed to the standards of the Commercial Pilot Airman Certification Standards with the following exception:

Steep Turns: Altitude +/- 150 feet, roll out heading +/- 15 degrees

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # X LESSON # 1002

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: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	TAA	PP	GI
?										?	

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 _____

STAGE X FLIGHT LESSON 3 SOLO - LOCAL
UNIVERSITY OF OKLAHOMA

LESSON OBJECTIVE: This lesson provides the student with the opportunity to practice basic flight maneuvers to further develop coordination and airplane control.

CONTENT:
Lesson Review

Stalls

- Power-Off
- Power-On
- Accelerated

Maneuvering During Slow Flight

Normal Takeoffs and Landings

Private Pilot Ground Reference Maneuvers Assigned by the Instructor

COMPLETION STANDARDS:

This lesson is complete when the student has conducted the assigned flight. The student should attempt to gain proficiency in the planning of each maneuver.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # X LESSON # 1003

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: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	TAA	PP	GI
	?									?	

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 _____

STAGE X FLIGHT LESSON 4 DUAL - LOCAL
UNIVERSITY OF OKLAHOMA
LESSON OBJECTIVE: This lesson provides a review of the listed tasks.

CONTENT:
Lesson Review

- Visual Inspection
- Cruise Procedures
- Power Settings and Mixture Leaning
- Climbs
- Descents
- Steep Turns
- Maneuvering During Slow Flight
- Stalls
 - Power-Off
 - Power-On
 - Accelerated
- Takeoffs and Landings
 - Short-Field
 - Soft-Field

COMPLETION STANDARDS:

The tasks will be performed to the standards of the Commercial Pilot Airman Certification Standards with the following exceptions:

Short Field Landing touchdown -0 to +150 feet.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # X LESSON # 1004

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: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	TAA	PP	GI
?										?	

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 _____

STAGE X FLIGHT LESSON 5 DUAL - LOCAL – TAA 2nd Hour
UNIVERSITY OF OKLAHOMA

LESSON OBJECTIVE: This lesson presents additional instruction in chandelles and steep power turns and reviews instrument procedures. Maximum performance takeoffs and landings are practiced to increase the student's proficiency in the takeoff and landing phases of flight. The Instrument portion of this lesson will be conducted in a Technically Advanced Airplane.

CONTENT:
Lesson Review

- Steep Turns
- Chandelles
- Steep Spiral
- Eights-On-Pylons
- Traffic Patterns
- Short-Field Takeoff and Landing
- Soft-Field Takeoff and Landing
- Power-Off 180 Degree Accuracy Approach and Landing

Lesson Review

- Instrument Approaches
 - Precision
 - Non-Precision
- Holding
- Simulated Failure of the PFD

COMPLETION STANDARDS:

The maneuvers and landings will be performed to the standards of the Commercial Pilot Airman Certification Standards with the following exceptions:

- Chandelles: Roll out heading: +/-15 degrees
- Steep Spiral: Airspeed +/-15 knots
- Power Off Accuracy Landing: Touchdown -0 to +300 feet
- Eights On Pylons: Hold pylon to within one wing width

For the instrument review the student will correctly interpret the PFD and MFD and correctly program the flight director. Instrument Approaches and holds will be performed to the standards of the Instrument Rating Airplane Airman Certification Standards.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # X LESSON # 1005

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

PFD_FAILURE_AT_LEAST_ONE_APPROACH _____

FOR XC FLIGHTS, LIST DESTINATIONS: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	TAA	PP	GI
?						?			??	?	

 *2nd Hour

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 _____

STAGE X FLIGHT LESSON 6 SOLO - LOCAL
UNIVERSITY OF OKLAHOMA

LESSON OBJECTIVE: The student will attempt to gain proficiency through the review of the listed maneuvers.

CONTENT:
Lesson Review

- Steep Turns
- Chandelles
- Maneuvering During Slow Flight
- Short-Field Takeoffs and Landings
- Soft-Field Takeoffs and Landings
- Power-Off Stalls
- Power-On Stalls
- Accelerated Stalls
- Lazy Eights
- Steep Spiral
- Eights On Pylons

COMPLETION STANDARDS:

This lesson is complete when the student has conducted the assigned maneuvers. During the lesson, the student should attempt to minimize the transition and setup time between each maneuver.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # X LESSON # 1006

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: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	TAA	PP	GI
	?									?	

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 _____

STAGE X FLIGHT LESSON 7 DUAL - LOCAL – TAA 2nd Hour
UNIVERSITY OF OKLAHOMA

LESSON OBJECTIVE: This lesson provides a review and evaluation of the student's progress during the previous solo lessons, including lazy eights, and eights-on-pylons. The instrument portion of this lesson will be conducted in a Technically Advanced Airplane

CONTENT:
Lesson Review

- Chandelles
- Normal Takeoffs and Landings
- Crosswind Takeoffs and Landings
- Power-Off 180 Degree Accuracy Approach and Landing
- Wake Turbulence Avoidance
- Lazy Eights
- Steep Spiral
- Eights-On-Pylons

Lesson Review

- Instrument Approaches
 - Precision
 - Non-Precision
- Holding
- Recovery From Unusual Attitudes
- Simulated Failure of the PFD

COMPLETION STANDARDS:

The maneuvers and landings will be performed to the standards of the Commercial Pilot Airman Certification Standards with the following exceptions:
 Power-Off Accuracy Landings: Touch down -0 to +300 feet
 Lazy Eights: 180 degree point altitude/airspeed within 200 feet/15 knots of entry altitude/airspeed

For the instrument review the student will correctly interpret the PFD and MFD and correctly program the flight director and operate the autopilot. Instrument approaches, holds and recovery from unusual attitudes will be performed to the Instrument Rating Airman Certification Standards.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # X LESSON # 1007

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

 PFD_FAILURE_AT_LEAST_ONE_APPROACH _____

FOR XC FLIGHTS, LIST DESTINATIONS: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	TAA	PP	GI
?						?			??	?	

 *2nd Hour

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 _____

STAGE X FLIGHT LESSON 8 DUAL - LOCAL
UNIVERSITY OF OKLAHOMA

LESSON OBJECTIVE: During this lesson, the student is provided with a review of emergency procedures and commercial pilot maneuvers.

CONTENT:
Lesson Review

- Visual Inspection
- Determining Performance and Limitations
- Takeoffs and Landings
 - Normal
 - Go-Around from Rejected (Balked) Landing
- Climbs
- Descents
- Steep Turns
- Stalls
 - Power-On
 - Power-Off
 - Accelerated
- Takeoffs and Landings
 - Short-Field
 - Soft-Field
- Simulated Emergency Procedures
 - Emergency Descent
 - Emergency Approach and Landing (Simulated)
 - System and Equipment Malfunctions
- Chandelles
- Lazy Eights
- Steep Spiral
- Eights-On-Pylons

COMPLETION STANDARDS:

Tasks will be performed to the standards of the Commercial Pilot Airman Certification Standards with the following exception:
 Lazy Eights: 180 degree point altitude/airspeed within 150 feet/15 knots of entry airspeed/altitude.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # X LESSON # 1008

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: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	TAA	PP	GI
?										?	

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 _____

STAGE X FLIGHT LESSON 9 DUAL - LOCAL
UNIVERSITY OF OKLAHOMA
LESSON OBJECTIVE: This lesson allows the student to increase proficiency in the listed tasks.

CONTENT:
Lesson Review

- Visual Inspection
- Power Settings and Mixture Leaning
- Climbs
- Descents
- Steep Turns
- Takeoffs and Landings
 - Short-Field
 - Soft-Field
- Power-Off 180 Degree Accuracy Approach and Landing
- Completion of 10 Takeoffs and 10 Landings to a Full Stop

COMPLETION STANDARDS:

The tasks will be performed to the standards of the Commercial Pilot Airman Certification Standards with the following exception:

Power-Off Accuracy Landing: Touch down point -0 to +300 feet

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # **CRM** FLIGHT STAGE # **X** LESSON # **1009**

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: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	TAA	PP	GI
?										?	

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 _____

STAGE X FLIGHT LESSON 10 SOLO – CROSS COUNTRY
UNIVERSITY OF OKLAHOMA
LESSON OBJECTIVE:

This lesson maintains student proficiency in cross-country flights. The flight will include a landing at a point more than 50 nautical miles from the original departure point.

CONTENT:
Lesson Review

Cross-Country Flight Planning

Cross-Country Navigation

- Dead Reckoning
- Pilotage
- VOR Navigation
- GPS Navigations
- Controlled Airport Operations
- Uncontrolled Airport Operations

COMPLETION STANDARDS:

This lesson is complete when the student has conducted a solo cross-country flight to include a landing at a point more than 50 nautical miles from the original departure point. The student will demonstrate continued proficiency in cross-country operations.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # X LESSON # 1010

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: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	TAA	PP	GI
	?				?					?	

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 _____

STAGE X FLIGHT LESSON 11 DUAL - LOCAL, NIGHT
UNIVERSITY OF OKLAHOMA

LESSON OBJECTIVE: This lesson reviews the student's night flight operations and the differences encountered between day and night flight.

CONTENT:
Lesson Introduction

Night Ground Operations

- Aeromedical Factors
- Personal Equipment Recommended
- Night Flight Preparation
- Night Preflight Inspections

Airport and Runway Markings and Lighting

Takeoffs and Landings

- Normal
- Crosswind
- Controlled and Uncontrolled Airports

Stalls

- Power-Off
- Power-On

Maneuvering During Slow Flight

Steep Turns

Simulated Emergency Procedures

- Emergency Descent
- Emergency Approach and Landing
- Systems and Equipment Malfunctions

Go-Around From Rejected (Balked) Landing

COMPLETION STANDARDS:

The student will display knowledge of night operations to the standards of the Private Pilot Airman Certification Standards. The maneuvers will be performed to the standards of the Commercial Pilot Airman Certification Standards.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # X LESSON # 1011

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: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	TAA	PP	GI
?		?								?	

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 _____

STAGE X FLIGHT LESSON 12 SOLO - LOCAL, NIGHT
UNIVERSITY OF OKLAHOMA

LESSON OBJECTIVE: This lesson provides night solo practice so the student may gain proficiency and confidence in the night environment.

CONTENT:
Lesson Review

Takeoffs and Landings

- Normal
- Crosswind

COMPLETION STANDARDS:

This lesson is complete when the student has conducted the solo night flight. During the flight, the student should attempt to gain proficiency in takeoffs and landings in the night environment.

NOTE: Through a combination of Stage IV Lessons 12, 17, & 21 and Stage X Lesson 12, the student will have completed a combined 10 takeoffs and landings (with each landing involving a flight with a traffic pattern) at an airport with an operating control tower.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # X LESSON # 1012

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: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	TAA	PP	GI
	?		?				?			?	

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 _____

STAGE X FLIGHT LESSON 13 SOLO - LOCAL, NIGHT
UNIVERSITY OF OKLAHOMA

LESSON OBJECTIVE: The object of this lesson is to increase the student's proficiency in night operations. Night flight procedures, therefore, are reviewed and practiced in this session.

CONTENT:
Lesson Review

- Steep Turns
- Maneuvering During Slow Flight
- Takeoffs and Landings

COMPLETION STANDARDS:

The student's increase in night proficiency to that of a commercial pilot will be evident during the postflight evaluation. The student will thoroughly explain the additional operational aspects and safety considerations which are associated with night flight.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # X LESSON # 1013

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: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	TAA	PP	GI
	?		?				?			?	

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 _____

STAGE X FLIGHT LESSON 14 SOLO - LOCAL
UNIVERSITY OF OKLAHOMA

LESSON OBJECTIVE: This lesson will provide solo practice of the flight maneuvers so that the student can acquire added proficiency.

CONTENT:
Lesson Review

- Steep Turns
- Chandelles
- Lazy Eights
- Steep Spiral
- Eights-On-Pylons
- Takeoffs and Landings
 - Short-Field
 - Soft-Field
 - Crosswind

Power-Off 180 Degree Accuracy Approach and Landing

COMPLETION STANDARDS:

This solo lesson is complete when the student has conducted the assigned flight. During the flight, the student should attempt to attain or maintain commercial pilot proficiency.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # X LESSON # 1014

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: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	TAA	PP	GI
	?									?	

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 _____

STAGE X FLIGHT LESSON 15 DUAL - LOCAL – TAA 2nd Hour
UNIVERSITY OF OKLAHOMA

LESSON OBJECTIVE: This lesson provides a review for the student and an opportunity to correct any areas of faulty performance. The instrument portion of this lesson will be conducted in a Technically Advance Aircraft.

CONTENT:
Lesson Review

- Chandelles
- Lazy Eights
- Eights-On-Pylons
- Steep Turns
- Steep Spiral

- Lesson Review
- Instrument Approaches
 - Precision
 - Non-Precision
- Simulated Failure of the PFD

COMPLETION STANDARDS:

The student will perform the maneuvers to the standards of the Commercial Pilot Airman Certification Standards. For the instrument review the student will correctly interpret the PFD and MFD and correctly program the flight director and use the autopilot. Instrument procedures will be performed to the standards of the Instrument Rating Airman Certification Standards.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # X LESSON # 1015

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

 PFD_FAILURE_AT_LEAST_ONE_APPROACH _____

FOR XC FLIGHTS, LIST DESTINATIONS: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	TAA	PP	GI
?						?			?*	?	

 2nd Hour

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 _____

STAGE X FLIGHT LESSON 16 DUAL - LOCAL, INSTRUMENT - TAA
UNIVERSITY OF OKLAHOMA

LESSON OBJECTIVE: This lesson reviews precision and non-precision approaches and holding procedures. It will be conducted in a Technically Advance Airplane.

CONTENT:
Lesson Review

Holding
 Non-Precision Approaches
 Precision Approaches
 Simulated Failure of the PFD

COMPLETION STANDARDS:

The student will correctly interpret the PFD and MFD and correctly program the flight director and use the autopilot. Instrument approaches and holds will be performed to the Instrument Rating Airman Certification Standards.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # X LESSON # 1016

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

PFD_FAILURE_AT_LEAST_ONE_APPROACH _____

FOR XC FLIGHTS, LIST DESTINATIONS: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	TAA	PP	GI
?						?			?	?	

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 _____

STAGE X FLIGHT LESSON 17 SOLO - LOCAL
UNIVERSITY OF OKLAHOMA

LESSON OBJECTIVE: This lesson is a solo review lesson designed to increase the student's proficiency.

CONTENT:
Lesson Review

Lazy Eights

Eights-On-Pylons

Chandelles

Steep Turns

Steep Spiral

Power-Off 180 Degree Accuracy Approach and Landing

COMPLETION STANDARDS:

This lesson will be complete when the student has conducted the assigned solo flights. During each flight, the student should attempt to perform lazy eights with symmetrical loops and eights-on-pylons, chandelles, and steep power turns with smoothness and coordination. During steep spirals the student will adjust bank angle to maintain a constant radius from the selected point and pitch to maintain a constant airspeed. During the power-off 180 degree accuracy approach and landing the student will factor in the wind to correctly adjust the approach course to touch down on or 200 feet beyond the selected point.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # X LESSON # 1017

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: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	TAA	PP	GI
	?									?	

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 _____

STAGE X FLIGHT LESSON 18 DUAL - LOCAL
UNIVERSITY OF OKLAHOMA
LESSON OBJECTIVE: This lesson is a review to maintain proficiency in the listed tasks and maneuvers.

CONTENT:
Lesson Review

- Visual Inspection
- Cruise Procedures
- Power Settings and Mixture Leaning
- Climbs
- Descents
- Steep Turns
- Chandelles
- Lazy-Eights
- Steep Spiral
- Eights-On-Pylons
- Maneuvering During Slow Flight
- Stalls
 - Power-Off
 - Power-On
 - Accelerated
- Takeoffs and Landings
 - Short-Field
 - Soft-Field
- Power-Off 180 Degree Accuracy Approach and Landing

COMPLETION STANDARDS:

The student will perform the listed tasks and maneuvers to the standards of the Commercial Pilot Airman Certification Standards.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # X LESSON # 1018

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: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	TAA	PP	GI
?										?	

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 _____

STAGE X FLIGHT LESSON 19 DUAL - LOCAL

LESSON OBJECTIVE: During this lesson, the student is provided with a review of basic flight procedures along with the practice of emergency procedures, attitude instrument flying, and takeoffs and landings.

CONTENT:
Lesson Review

- Visual Inspection
- Determining Performance and Limitations
- Takeoffs and Landings
 - Normal
 - Go-Around From Rejected (Balked) Landing
- Power Settings and Mixture Leaning
- Use of Landing Gear and Flaps
- Climbs
- Descents
- Steep Turns
- Maneuvering During Slow Flight
- Stalls
 - Power-Off
 - Power-On
 - Accelerated
- Takeoffs and Landings
 - Short-Field
 - Soft-Field
- Simulated Emergency Procedures
 - Emergency Descent
 - Emergency Approach and Landing
 - System and Equipment Malfunctions
 - Fire in Flight
- Full Panel Instrument
 - Straight and Level
 - Climbs
 - Climbing Turns
 - Descents
 - Descending Turns
 - Standard-Rate Turns
 - Recovery From Unusual Flight Attitudes
 - Maneuvering During Slow Flight

COMPLETION STANDARDS:

The student will perform the visual tasks to the standards of the Commercial Pilot Airman Certification Standards. Instrument tasks will be performed the standards of the Instrument Airplane Airman Certification Standards.

UNIVERSITY OF OKLAHOMA

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # **CRM** FLIGHT STAGE # **X** LESSON # **1019**

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: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	TAA	PP	GI
?						?				?	

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 _____

STAGE X FLIGHT LESSON 20 SOLO - LOCAL
UNIVERSITY OF OKLAHOMA

LESSON OBJECTIVE: The objective of this lesson is the same as previous solo lessons. The student is provided with the opportunity to review and practice flight maneuvers to gain added proficiency.

CONTENT:
Lesson Review

- Power-Off Stalls
- Power-On Stalls
- Accelerated Stalls
- Maneuvering During Slow Flight
- Steep Turns
- Chandelles
- Steep Spiral
- Lazy Eights
- Eights-On-Pylons
- Short-Field Takeoffs and Landings
- Soft-Field Takeoffs and Landings
- Power-Off 180 Degree Accuracy Approach and Landing

COMPLETION STANDARDS:

This lesson will be completed when the student has conducted the assigned solo flight. During the flight, the student should attempt to increase accuracy and coordination on the listed maneuvers.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # X LESSON # 1020

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: _____

DI	So	Dnt	Snt	Dxc	Sxc	ldl	Nldg	AATD	TAA	PP	GI
	?									?	

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 _____

STAGE X FLIGHT LESSON 21 DUAL - LOCAL
UNIVERSITY OF OKLAHOMA

LESSON OBJECTIVE: The objective is to determine the student's VFR proficiency. The instructor is to choose the maneuvers to be performed.

CONTENT:
Lesson Review

- Chandelles
- Power-Off 180 Degree Accuracy Approach and Landing
- Eights-On-Pylons
- Steep Turns
- Stalls
- Maneuvering During Slow Flight
- Lazy Eights
- Steep Spirals
- Takeoffs and Climbs
 - Normal
 - Crosswind
 - Short-Field
 - Soft-Field
- Approaches and Landings
 - Normal
 - Crosswind
 - Short-Field
 - Soft-Field
 - Go-Around From Rejected (Balked) Landing
- Power-Off 180 Degree Accuracy Approach and Landing
- Cockpit Management
- After Landing Procedures

COMPLETION STANDARDS:

All maneuvers will be performed according to the Commercial Pilot Airman Certification Standards.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # **CRM** FLIGHT STAGE # **X** LESSON # **1021**

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: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	TAA	PP	GI
?										?	

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 _____

STAGE X FLIGHT LESSON 22 DUAL
UNIVERSITY OF OKLAHOMA

LESSON OBJECTIVE: This lesson is the final dual review of the commercial flight maneuvers. The objective is to determine the student's preparedness for the last stage check.

CONTENT:
Lesson Review

Chandelles

Lazy Eights

Steep Spiral

Eights-On-Pylons

Steep Turns

Takeoffs and Landings

- Short-Field

- Soft-Field

- Crosswind

- Power-Off 180 Degree Accuracy Approach and Landing

Go-Around From Rejected (Balked) Landing

Simulated Emergency Procedures

- Landing Gear Malfunction

- Systems and Equipment Malfunction

- Emergency Descent

- Emergency Approach and Landing

COMPLETION STANDARDS:

The lesson is complete when the student can perform each of the listed maneuvers to the minimum performance standards outlined in the current FAA commercial pilot airman certification standards.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # X LESSON # 1022

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: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	TAA	PP	GI
?										?	

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 _____

UNIVERSITY OF OKLAHOMA
STAGE X LESSON 23 QUIZ

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

CONTENT: The quiz will cover the following areas:

- Aircraft Airworthiness Requirements
- Aircraft Systems
- Airspace
- Weather Products/Services
- Slow Flight and Stalls
- Landings – Short Field, Soft Field and Power Off 180 Degree Accuracy
- Maneuvers – Steep Turns, Chandelles, Steep Spirals, Lazy 8's and 8's on Pylons

COMPLETION STANDARDS:

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

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

AIRCRAFT # **QUIZ** FLIGHT STAGE # **X** LESSON # **1023**

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: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	TAA	PP	GI
										?	

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 _____

STAGE X FLIGHT LESSON 24 DUAL

UNIVERSITY OF OKLAHOMA

LESSON OBJECTIVE: This lesson is the final stage check conducted by the Chief or Assistant Chief Flight Instructor or Check Instructor approved by the FSDO. During this lesson the student must demonstrate Knowledge (KN), Risk Management (RM) and Skill (SK) as required by the FAA Commercial Pilot – Airplane Airman Certification Standards. The order of material examined under lesson content is based on how this material may be covered during the ground and flight portions of the practical test. The material is not required to be covered in this order as long as it is covered in its entirety. The ground portion of the test must be completed prior to the flight portion of the test.

PRE-TEST PLANNING: The evaluator will check for updates to the Airman Certification Standards. Any changes will be incorporated into the evaluation.

The evaluator will note the ACS codes missed on the knowledge test and annotate these codes on the KN or RM line for each task or groups of tasks in the lesson plan. These items must be evaluated as part of the stage check.

CONTENT: The applicant will plan a VFR cross country flight using real world weather. The weights of passengers and baggage must be such that the aircraft can't reach its primary destination without making a fuel stop. In both the ground and flight portions of the stage check the evaluator will present the applicant with different situations within the scenario (weather, equipment failure, ATC requests, medical issues etc.). In the process of demonstrating the KN, RM and SK to deal with these situations as many of the tasks as possible will be evaluated. Any remaining tasks will be evaluated outside the context of the scenario. In some cases tasks are grouped together to facilitate evaluation as part of a scenario. The evaluator will make note of unsatisfactory performance on the KN, RM or SK lines as appropriate.

(CONTINUED ON NEXT PAGE)

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # X LESSON # 1024

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: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	TAA	PP	GI
?										?	

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 _____

STAGE X FLIGHT LESSON 24 (CONT'D)

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

Pilot Qualifications (AOI, Task A)

KN:

RM:

SK:

Airworthiness Requirements (AOI, Task B)

KN:

RM:

SK:

Preflight Assessment (AOII, Task A)

KN:

RM:

SK:

Weather Information (AOI, Task C)

KN:

RM:

SK:

Cross-Country Flight Planning (AOI, Task D)
Performance and Limitations (AOI, Task F)
Emergency Equipment and Survival Gear (AOIX, Task D)
National Airspace System (AOI, Task E)
High Altitude Operations (AOVIII, Tasks A and B)

KN:

RM:

SK:

Operation of Systems (AOI, Task G)

KN:

RM:

SK:

Human Factors (AOI, Task H)

KN:

RM:

SK:

Spin Awareness (AOVII, Task E)

KN:

RM:

SK:

(CONTINUED ON NEXT PAGE)

STAGE X FLIGHT LESSON 24 (CONT'D)

Flight Portion of Practical Test: All SK elements must be evaluated. At least one KN and RM element from each task will be evaluated. This may be accomplished through questions asked during the ground portion of the test, or as safety of flight permits, asking questions during the flight to test KN and RM elements not evident in the demonstrated skills.

Flight Deck Management (AOII, Task B) – Evaluated throughout the flight

SK:

KN:

RM:

Communications and ATC Light Signals and Runway Lighting Systems (AOIII, Task A) – Evaluated throughout the flight

SK:

KN:

RM:

Operation of Systems (AOI, Task G) – Evaluated throughout the flight

SK:

KN:

RM:

EMERGENCY OPERATIONS (These tasks inserted at times selected by the evaluator)

Systems and Equipment Malfunction (AO IX, Task C)

- At least three system malfunctions

Emergency Descent (AOIX, Task A)

Emergency Approach and Landing (AOIX, Task B)

SK:

KN:

RM:

GROUND OPERATIONS

Preflight Assessment (AOII, Task A)

Engine Starting (AOII, Task C) &

Emergency Equipment (AOIX, Task D)

Taxiing (AOII, Task D)

Before Takeoff Check (AOII, Task F)

After Landing, Parking and Securing (AOXI, Task A)

SK:

KN:

RM:

(CONTINUED ON NEXT PAGE)

STAGE X FLIGHT LESSON 24 (CONT'D)**CROSS COUNTRY NAVIGATION**

Pilotage and Dead Reckoning (AOVI, Task A)
Navigation Systems and Radar Services (AOVI, Task B)
Diversion (AOVI, Task C)
Lost Procedures (AOVI, Task D)

SK:

KN:

RM:

SLOW FLIGHT AND STALLS

Maneuvering During Slow Flight (AOVII, Task A)
Power-Off Stalls (AOVII, Task B)
Power-On Stalls (AOVII, Task C)
Accelerated Stalls (AOVII, Task D)

SK:

KN:

RM:

PERFORMANCE MANEUVERS

Steep Turns (AOV, Task A) or Steep Spirals (AOV, Task B)
Chandelles (AOV, Task C) or Lazy Eights (AOV, Task D)

SK:

KN:

RM:

GROUND REFERENCE MANEUVER

Eights on Pylons (AOV, Task E)

SK:

KN:

RM:

AIRPORT OPERATIONS, TAKEOFF'S, LANDINGS and GO-AROUNDS

Traffic Patterns (AOIII, Task B)
Norman Takeoff and Climb (AOIV, Task A)
Normal Approach/Landing (AOIV, Task B)
Soft-Field Takeoff and Climb (AOIV, Task C)
Soft-Field Approach and Landing (AOIV, Task D)
Short-Field Takeoff and Max Performance Climb (AOIV, Task E)
Short-Field Approach and Landing (AOIV, Task F)
Power-Off 180 Degree Approach and Landing (AOIV, Task M)
Go-Around/Rejected Landing (AOIV, Task N)

SK:

KN:

RM:

COMPLETION STANDARDS:

The student will demonstrate proficiency in strict accordance with the Commercial Pilot – Airplane Airman Certification Standards. and will OK:
Task performed satisfactorily within ACS Standards
U: Performance on task not within ACS Standards. Explanation of unsatisfactory performance in KN, RM and/or SK lines as appropriate.
NC: Task not evaluated due to not completing the test – weather cancellation, maintenance, termination due to failure of earlier task, etc.

APPENDIX B
UNIVERSITY OF OKLAHOMA
COURSE POLICIES

1. At the discretion of the instructor, students who progress rapidly within a specific stage, may within reasonable variances, continue to the next lesson with less time than is specified in the specific lesson curriculum, provided all content and completion standards are satisfactorily completed. The time stated in the lesson is the approximate minimum time that a student would need to meet the lesson objectives and completion standards; not absolute required times. The lesson time could be slightly more or slightly less. These reduced hours must be included in other lessons to complete the total ground or flight time specified by category in the training course outline in order to satisfactorily complete the course.
2. At no time will a student be allowed to continue to the next stage without having successfully completed all of the lessons and the required tests or stage checks related to the completion of the previous stage.
3. 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.
4. 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 Pocosset, 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.

