# UNIVERSITY OF OKLAHOMA PRIVATE PILOT FLIGHT TRAINING SYLLABUS

PREREQUISITES FOR ENROLLMENT IN THE FLIGHT PORTION OF THE PRIVATE

**PILOT COURSE:** You must hold a student, recreational or sport pilot certificate and a medical certificate valid for at least third-class privileges prior to beginning stage II in the private pilot course.

**COURSE OBJECTIVE:** You will obtain the knowledge, skill and aeronautical experience to meet the requirements of 14 CFR, Section 141, Appendix B to earn a private pilot certificate with airplane single engine land rating.

**COURSE POLICY:** At the discretion of the instructor, students who progress rapidly within a specific stage, may within reasonable variances, continue to the next lesson with less time than is specified in the specific lesson curriculum, provided all content and completion standards are satisfactorily completed. The time stated in the lesson is the approximate minimum time that a student would need to meet the lesson 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.

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.

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

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

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

To satisfactorily complete the course of training, the student must meet all course objectives and completion standards. The student must satisfactorily complete all required ground training and pass the FAA Private Pilot Airplane knowledge test prior to the completion of flight training.

**EXPECTED ACCOMPLILSHMENTS AND STANDARDS:** To satisfactorily complete each flight stage the student must complete the lessons in that stage and pass the end of course stage check. Each lesson lists specific objectives and standards of completion.

**CHECKS AND TESTS:** The flight training portion of the syllabus contains a quiz and a stage check flight at the end of Stage I, II and

III. The stage checks will be administered by the Chief/Assistant Chief Flight Instructor or check instructor approved by the FSDO. The Stage III check is the end of course stage check which will be equal in scope, depth and difficulty to the practical test defined by the FAA Private Pilot – Airplane Airman Certification Standards.

## **STUDYING MANEUVERS**

- 1. Refer to the maneuver in the Airplane Flying Handbook to learn how to do the maneuver as well as common errors when attempting to execute the maneuver.
- 2. Refer to the University of Oklahoma Supplementary Information for Flight Students and the POH to learn specifics of executing this maneuver in the PA28-161.
- 3. Refer to the Private Pilot Airplane ACS to determine the standards to which you must accomplish the maneuver in order to earn your private pilot certificate.

# FLIGHT LESSON TIME ALLOCATION TABLE

LESSON STAGE I	DL	so	DLNGT	DLXC	soxc	DLINST	DLAATD	PRE/POST	GI**
1									2.0
2	1.0							0.5	
3	1.0					0.2		0.5	
4	1.0							0.5	
5	1.0					0.2		0.5	
6	1.0					0.2		0.5	
7	1.0							0.5	
8	1.0							0.5	
9	1.0							0.5	
10	2.0					0.2		0.5	
11	2.0					0.2		0.5	
12 QUIZ									1.0
13 STGCHK	1.5					0.1		0.5	0.5
STAGE II									
1	0.5	0.5						0.5	
2	2.0							0.5	
3	2.0					0.2		0.5	
4							1.0	0.5	
5	1.0					0.3		0.5	
6		1.0						0.5	
7	1.0					0.2		0.5	
8	3.0			3.0				0.5	
9	1.0		1.0					0.5	
10	3.0		3.0	3.0		0.1		0.5	
11 QUIZ									1.0
12 STGCHK	1.5					0.2		0.5	0.5
STAGE III									
1		2.5			2.5			0.5	
2	1.0					0.2		0.5	
3		1.0						0.5	
4	1.0		1.0			0.2		0.5	
5	1.0					0.2		0.5	
6	1.0					0.1		0.5	
7 QUIZ									4.0
8 STGCHK	1.5					0.2		0.5	1.5
TOTAL*	34.0	5.0	5.0	6.0	2.5	3.0	1.0	14.5	10.5

<sup>\*</sup> Total Training Time (dual + solo) is 40 hours. These are the minimum times required in each flight category for course completion.

<sup>\*\*</sup> Excess ground instruction from the flight training syllabus MAY NOT be used to make up for a shortage of ground instruction from the ground training syllabus and vice versa.

# Flight Lesson Time Allocation Table (continued)

**DL** = Flight Instruction in an Airplane

**SO = Student Solo Flight in an Airplane** 

DLNGT = Flight Instruction in an Airplane at Night

**DLXC** = Cross Country Flight Instruction in an Airplane

**SOXC** = Student Solo Cross Country Flight in an Airplane

**DLINST** = Instrument Flight Instruction in an Airplane

**DLAATD** = Instrument Instruction in an Advanced Aviation Training Device

**Pre/Post = Pre and Post Flight Instruction** 

**GI= Ground Instruction** 

Upon Completion of lesson III/3 the student will have made three solo takeoff and landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport with an operating control tower.

Upon Completion of lesson III/4 the student will have made 10 night takeoffs and landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport.

## SYLLABUS LESSON TIME CHART

DI	So	Dnt	Dxc	Sxc	ldl	Nldg	AATD	PP	GI	SLCT	
										LDG	
X	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	
Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	

**X** = Indicates minimum times required by FSP to complete the lesson.

**Y** = Times indicated in Lesson Time Allocation Table

If X is less than Y on a particular lesson the shortage must be made up in a future lesson

# UNIVERSITY OF OKLAHOMA STAGE I

# **STAGE OBJECTIVE**

During this stage, the student obtains the foundation for all future aviation training. The student becomes familiar with the training airplane and learns how the airplane controls are used to establish and maintain specific flight attitudes. Through review and the introduction of new maneuvers, the student will gain the proficiency to solo the training airplane.

## STAGE COMPLETION STANDARD

Prior to the completion of this stage, the student must pass a stage check to:

- demonstrate an understanding of the basic flight maneuvers introduced in Flights 1 through 7.
- understand how to maintain specific flight attitudes and ground tracks.
- demonstrate flight proficiency and risk management skills required to solo in the local practice area.

The specific tasks to be accomplished and completion standards are contained in Stage I, Flight Lesson 13.

DI	So	Dnt	Dxc	Sxc	ldl	Nldg	AATD	PP	GI	
									2.0	
									2.0	

#### STAGE I FLIGHT LESSON 1 GROUND LESSON

#### **LESSON OBJECTIVE:**

During this lesson, the student is introduced to the training airplane. The student will learn how to conduct the necessary preflight activities and be introduced to the aircraft systems.

## **CONTENT:**

#### **Lesson Introduction**

## **Preflight Assessment**

- Airworthiness Requirements
- -- Airplane Documents
- -- Airplane Logbooks
- Use of Checklists
- Aircraft Preflight Inspection
- Airplane Servicing
  - -- Fuel Grades
  - -- Oil
- Operation of Systems
- -- Primary Flight Controls
- -- Secondary Flight Controls
- -- Powerplant
- -- Fuel System
- -- Electrical System -- Pitot Static System
- -- Vacuum System
- -- Environmental Vents, Heating, Defrost
- -- Avionics
- Location and use of Emergency Equipment and Survival Gear
- -- Fire Extinguisher -- First Aid Kit
- Computation of Aircraft Performance
- Computation of Aircraft Weight and Balance
- Risk Management Use of Flight Risk Analysis Tool (FRAT)

- -- Human Factors
- -- Pilot Qualifications Currency and proficiency
- -- Environmental Factors and Personal Minimums
- -- Aircraft Maintenance Status

#### **COMPLETION STANDARDS:**

**Preflight Assessment:** Gain a knowledge of aircraft systems and the necessity of checking their operation before flight.

**Airplane Performance**: The student will be able to compute normal takeoff and landing distances and use the performance worksheet to determine whether the airplane can safely takeoff and land at the airport of intended use.

**Airplane Weight and Balance:** The student will be able to compute the airplane weight and center of gravity (CG) and determine whether weight and CG are within limits.

**Risk Management**: The student will be introduced to the Flight Risk Assessment Tool (FRAT) and gain an appreciation that even low risks associated with Human Factors, Pilot Qualifications, Environmental Factors and Aircraft Maintenance Status can add up to a high overall risk for the flight.

DI	So	Dnt	Snt	Dxc	Sxc	ldl	Nldg	AATD	CA	PP	GI
0.7										0.5	
1.0										0.5	
											i

#### STAGE I FLIGHT LESSON 2 DUAL-LOCAL

#### **LESSON OBJECTIVE:**

During this lesson, the student is introduced to the training airplane. The student will review how to conduct the necessary preflight activities. The student will be introduced to the flight controls and learn how they are used to maintain specific attitudes.

#### **CONTENT:**

#### **Lesson Review**

## **Preflight Assessment**

- Risk Management FRAT
- Aircraft Preflight Inspection
- Operation of Systems
- Computation of Aircraft Performance
- Computation of Aircraft Weight and Balance

#### **Lesson Introduction**

- Flight Deck Management
- -- Passenger Briefing
- -- Use of Checklists
- Engine Starting
- Taxiing
- -- Use of Rudder Pedals and Brakes for Steering
- -- Use of Throttle and Brakes for Speed Control
- -- Flight Control Positions in Accordance with Wind Direction
- Before Takeoff Check
- Use of Trim
- Normal Takeoff and Climb
- Straight, Shallow and Medium Bank Turns During Constant Speed Climbs

- Straight, Shallow and Medium Bank Turns in Level Flight
- Straight, shallow and Medium Bank Turns During Constant Speed Descents
- Normal Approach and Landing
- Postflight Procedures
- -- After Landing, Parking and Securing
- -- Post Flight Inspection

#### **COMPLETION STANDARDS:**

All tasks completed with instructor assistance. The student will gain familiarity with the aircraft and procedures.

**Risk Management**: The instructor will review procedures for completion of the FRAT.

**Taxi**: The student will be able to explain use of rudder, brakes, throttle, and flight control positions for taxi operations.

**Aircraft Control (VR)**: Maintain altitude +/- 250 feet, Heading +/-20 degrees, airspeed +/- 20 knots

DI	So	Dnt	Dxc	Sxc	ldl	Nldg	AATD	PP	G	
0.7					0.2			0.5		
1.0					0.2			0.5		

#### STAGE I FLIGHT LESSON 3 DUAL - LOCAL

#### LESSON OBJECTIVE:

During this lesson, the student will review the procedures introduced in Flight Lesson 1 to gain proficiency in turn performance and airspeed control techniques. Basic maneuvers by instrument reference are introduced to increase the student's airplane control skills.

#### **CONTENT:**

#### Lesson Review

- Risk Management FRAT
- Preflight Assessment
- Operation of Systems
- Engine Starting
- Taxiing
- Before Takeoff Check
- Use of Trim
- Normal Takeoff and Climb
- Straight-and-Level Flight
- Climbs
- Descents
- Shallow and medium banked turns in both directions
- Normal Approach and Landing
- Postflight Procedures

#### **Lesson Introduction**

- Airport Operations
- -- Radio Communications and Phraseology
- -- Use of Transponder
- -- Traffic Patterns
- -- Airport and Runway Marking and Lighting

- Collision Avoidance Procedures
- Maneuvering During Slow Flight
- Straight-and-Level Flight (IR)
- Straight, Constant Airspeed Climbs (IR)
- Straight, Constant Airspeed Descents (IR)

#### **COMPLETION STANDARDS:**

**Risk Management – FRAT:** Completed without instructor assistance.

Pre and Post Flight Procedures: Completed with minimal instructor assistance.

Normal Takeoff and Climb: Completed with instructor assistance.

**Aircraft Control (VR):** Altitude +/-250 feet, heading +/-20 degrees, airspeed +/-20 knots

**Aircraft Control (IR)**: Altitude +/-300 feet, heading +/-30 degrees, airspeed +/-20 knots

Normal Approach and Landing: Completed with instructor assistance.

**Maneuvering During Slow Flight:** Altitude +/- 250 feet, Airspeed +15/-0 knots, Heading +/- 20 degrees

**Radio Communications/Taxiing/Use of Transponder:** Copy and read back a taxi clearance, correctly trace the route and interpret airport signage and markings to follow the taxi route with instructor assistance. The student will learn how to use the transponder.

**Traffic Pattern Entry and Departure Procedures**: Execute tower directions for pattern entry and departure with instructor assistance.

**Collision Avoidance Procedures**: Learn scanning procedures during all phases of flight, including clearing turns and awareness of aircraft blind spots.

DI	So	Dnt	Dxc	Sxc	ldl	NIdg	AATD	PP	GI	
0.7								0.5		
1.0								0.5		

#### STAGE I FLIGHT LESSON 4 DUAL - LOCAL

#### **LESSON OBJECTIVE:**

During this lesson, the student will review airspeed control maneuvers and be introduced to stalls from various flight conditions to increase understanding of airplane control during takeoff, cruise and landing. The student is introduced to stalls, ground reference maneuvers and local area navigation.

#### **CONTENT:**

#### Lesson Review

- Preflight Assessment
- Engine Starting
- Airport and Runway Marking and Lighting
- Airport Base Operations
- -- Radio Communications
- -- Use of Transponder
- Taxiing
- Before Takeoff Check
- Normal Takeoff and Climb
- Traffic Patterns
- Collision Avoidance Procedures
- Normal Approach and Landing
- Maneuvering During Slow Flight
- Risk Management FRAT

#### **Lesson Introduction**

- Power-Off Stalls (Imminent)
- Power-On Stalls (Imminent)
- Local Area Navigation
- Ground Reference Maneuvers
- -- Rectangular Course
- -- S-Turns

-- Turns Around a Point

#### **COMPLETION STANDARDS:**

**Aircraft Control (VR):** Altitude +/- 200 feet, heading +/15 degrees, airspeed +/- 15 KIAS, for Climbs/Descents/Cruise.

**Collision Avoidance Procedures:** Execute proper scanning techniques and learn how to interpret traffic depictions on airplane traffic displays.

**Normal Takeoff and Climb:** Performed unassisted. Airspeed Vy = +15/-5 knots.

Normal Approach and Landing: Completed with instructor assistance.

Airport Operations/Radio Communications/Taxi/Use of Transponder: Copy and read back a taxi clearance, correctly trace the route and interpret airport signage and markings to follow the taxi route. The student will correctly operate the transponder.

**Traffic Pattern:** Describe the traffic pattern legs with correct entry and exit procedures.

**Maneuvering during slow flight**: Altitude +/-250 feet, Airspeed +15/-0 knots, Heading +/- 20 degrees.

**Stalls**: Recognition of an imminent stall, maintain +/-20 degrees heading during recovery.

**Ground Reference Maneuvers:** Execute the maneuvers with instructor assistance: Altitude +/-200 feet, Airspeed +/-15 knots.

**Risk Management:** Complete the FRAT without instructor assistance.

**Local Area Navigation:** Use pilotage to navigate to the practice area as well as pilotage and GPS to navigate from the practice area back to the airport with instructor assistance.

DI	So	Dnt	Dxc	Sxc	ldl	NIdg	AATD	PP	GI	
0.7					0.2			0.5		
1.0					0.2			0.5		

#### STAGE I FLIGHT LESSON 5 DUAL - LOCAL

#### **LESSON OBJECTIVE:**

During this lesson, the student will practice the maneuvers listed for review to gain additional proficiency and demonstrate the ability to recognize and recover from full stalls. The instructor will demonstrate an accelerated stall.

#### **CONTENT:**

#### Lesson Review

- Normal Takeoff and Climb
- Normal Approach Landing
- Ground Reference Maneuvers
- Risk Management
- Local Area Navigation

#### Lesson Introduction

- Power On Stalls
- Power Off Stalls
- Accelerated Stalls (Imminent) (Demonstration)
- Steep Turns
- Level Turns to Headings (IR)
- Turning Constant Airspeed Climbs (IR)
- Turning Constant Airspeed Descents (IR)
- Recovery from Unusual Flight Attitudes (IR)

#### **COMPLETION STANDARDS:**

**Normal Takeoff and Climbs** will be performed unassisted, Airspeed Vy +15/-5 knots

**Aircraft Control (VR):** Altitude +/-150 feet, heading +/-10 degrees, airspeed +/-10 knots for climbs/descents/cruise.

**Aircraft Control (IR)**: Altitude +/-300 feet, heading +/-30 degrees, airspeed +/-20 knots

**Stalls:** The student is introduced to full power on and power off stalls. Heading during recovery +/-20 degrees.

**Accelerated Stalls:** Gain an appreciation that the airplane will stall at a higher speed when a load greater than 1 G is imposed.

**Steep Turns**: Maintain bank angle +/-15 degrees, airspeed +/-15 knots, altitude +/- 200 feet, roll out heading +/-20 degrees.

**Recovery from Unusual Flight Attitudes:** Recognize unusual flight attitudes and demonstrate correct recovery technique with instructor assistance.

**Ground Reference Maneuvers**: Maintain a specific ground track, using coordinated control while maintaining altitude within +/- 200 feet and airspeed within +/- 15 knots.

**Normal Approach and Landing**: Performed unassisted on the downwind, base and turn to final and with instructor assistance below 400 feet. Touchdown -0/+700 feet.

**Local Area Navigation:** Display increased confidence navigation to and from the practice area with minimal instructor assistance.

DI	So	Dnt	Dxc	Sxc	ldl	NIdg	AATD	PP	GI	
0.7					0.2			0.5		
1.0					0.2			0.5		

#### STAGE I FLIGHT LESSON 6 DUAL - LOCAL

#### **LESSON OBJECTIVE:**

The student will review the listed maneuvers and be introduced to systems and equipment malfunctions and the emergency approach and landing. The instructor will demonstrate a secondary stall.

#### **CONTENT:**

#### Lesson Review

- Power Off Stall
- Power On Stall
- Steep Turns
- Normal Takeoff and Climb
- Normal Approach and Landing
- Ground Reference Maneuvers (at least one)
- Recovery from Unusual Flight Attitudes (IR)
- Local Area Navigation

#### **Lesson Introduction**

- Secondary Stall (Demonstration)
- Systems and Equipment Malfunction
- -- Inadvertent Door Opening
- -- Partial or Complete Engine Power Loss
- Emergency Approach and Landing (Simulated)

#### **COMPLETION STANDARDS:**

**Aircraft Control (VR):** Maintain altitude +/-100 feet, heading +/-10 degrees, airspeed +/-10 knots for climbs/descents/cruise.

**Ground Reference Maneuvers**: Maintain a specific ground track, using coordinated control while maintaining altitude within +/- 150 feet and airspeed +/-10 knots.

Stalls: Heading during recovery +/-15 degrees

**Secondary Stall**: Recognize and avoid situations that could lead to a secondary stall.

**Normal Takeoff and Climb**: Performed to the Standards of the Private Pilot ACS.

**Steep Turns**: Maintain bank angle +/-10 degrees, airspeed +/-15 knots, altitude +/- 200 feet, roll out heading +/-15 degrees.

Recovery from Unusual Flight Attitudes: Recognize unusual nose up or down attitude and execute correct recovery procedure with minimal instructor assistance.

**Normal Approach and Landing**: Performed to the standards of the Private Pilot ACS with instructor assistance during the round out and flare and touchdown point -0/+700 feet.

**Systems and Equipment Malfunction:** Recognize occurrence of the listed systems and equipment malfunctions and describe/perform the required response.

**Emergency Approach and Landing:** Explain the procedures used during emergency approach and landing and perform these procedures with instructor assistance. Best glide speed +/-15 knots.

Local Area Navigation: Navigate to/from the practice area with minimal instructor assistance

DI	So	Dnt	Dxc	Sxc	ldl	Nldg	AATD	PP	GI	
0.7								0.5		
1.0								0.5		

#### STAGE I FLIGHT LESSON 7 DUAL - LOCAL

#### LESSON OBJECTIVE:

During the lesson, the student will practice the review maneuvers to gain proficiency. The student is introduced to more systems and equipment malfunctions, emergency procedures, emergency descent, forward slips to a landing and light signals.

#### **CONTENT:**

#### Lesson Review

- Normal Takeoffs and Climb
- Ground Reference Maneuvers (at least one)
- Traffic Pattern Operations
- Local Area Navigation

#### **Lesson Introduction**

- Systems and Equipment Malfunctions
- -- Smoke/Fire/Engine Compartment Fire
- -- Electrical Malfunction
  - --- Alternator Failure
  - --- Popped Circuit Breaker
  - --- Electrical Fire
- -- Vacuum System Malfunction
- -- Pitot/Static System Malfunction
- -- Flap Malfunction
- -- Trim Malfunction
- Emergency Descent
- Go-Around/Rejected Landing

- Forward Slip to Landing
- Light Signals

#### **COMPLETION STANDARDS:**

**Ground Reference Maneuvers:** Fly specific ground tracks while maintaining altitude within +/150 feet, airspeed +/- 10 knots.

**Equipment and Systems Malfunction**: Recognize occurrence of the listed systems and equipment malfunctions and describe/perform the required response.

**Emergency Descent:** Recognize the need for an emergency descent and execute the procedure with instructor assistance. Airspeed top of white arc/20 knots

**Go-Around/Rejected Landing**: Recognize the need for a Go-Around and execute the procedure with instructor assistance. Airspeed Vy -5/+15 knots.

**Forward Slip to a Landing:** Understand how the forward slip is utsed to aid in landing and execute the maneuver with instructor assistance. Touchdown point -0/+700 feet.

**Light Signals:** Explain the correct loss of communication procedures and the correct light signal for each phase of flight and taxi.

DI	So	Dnt	Dxc	Sxc	ldl	Nldg	AATD	PP	GI	
0.7								0.5		
1.0								0.5		

#### STAGE I FLIGHT LESSON 8

**DUAL - LOCAL** 

#### LESSON OBJECTIVE:

During this lesson, the student will practice the listed maneuvers.

#### **CONTENT:**

#### Lesson Review

- Risk Management FRAT
- Straight-and-Level Flight (IR)
- Straight, Constant Airspeed Climbs (IR)
- Straight, Constant Airspeed Descents (IR)
- Climbing and Descending Turns to Headings (IR)
- Turns to Headings (IR)
- Recovery from Unusual Flight Attitudes (IR)
- Steep Turns
- Systems and Equipment Malfunction (at least two)
- Emergency Descent
- Go-Around/Rejected Landing
- Forward Slip to Landing
- Light Signals

#### **COMPLETION STANDARDS:**

**Risk Management – FRAT**. Based on a scenario provided by the instructor use the FRAT to assess the risk and response.

**Aircraft Control (IR)** Altitude +/-300 feet, heading +/-30 degrees, airspeed +/-20 knots.

Recovery from Unusual Flight Attitudes: Recognize unusual flight attitude and execute correct recovery procedure with minimal instructor assistance.

**Steep Turns**: Bank angle +/-10 degrees, airspeed +/-15 knots, altitude +/-150 feet, roll out heading +/-15 degrees.

**Equipment and Systems Malfunction**: Recognize occurrence of selected systems and equipment malfunctions and describe/perform the required response.

**Emergency Descent:** Execute the procedure without instructor assistance, airspeed top of white arc 0/-20 knots.

**Forward Slip to a Landing:** With instructor assistance, apply the correct aileron and rudder inputs to establish and maintain a forward slip to a landing. Touchdown point -0/+700 feet.

**Go-Around/Rejected Landing**: Recognize the need for a Go-Around and execute the procedure with instructor assistance. Airspeed Vy -5/+15 knots.

Light Signals: Interpret ATC light signals in scenarios presented by the instructor.

Local Area Navigation: Navigate to and from the practice area without instructor assistance.

DI	So	Dnt	Dxc	Sxc	ldl	Nldg	AATD	PP	GI	
0.7								0.5		
1.0								0.5		

#### **STAGE I FLIGHT LESSON 9**

**DUAL - LOCAL** 

#### LESSON OBJECTIVE:

During this lesson, the student will practice the listed maneuvers. The instructor will demonstrate an elevator trim stall.

#### **CONTENT:**

#### **Lesson Review**

- Risk Management FRAT
- Steep Turns
- Power On Stalls
- Power Off Stalls
- Systems and Equipment Malfunction (at least two)
- Emergency Approach and Landing (Simulated)
- Traffic Patterns
- Go-Around/Rejected Landing
- Forward Slips to Landing
- Normal Approach and Landing

#### **Lesson Introduction**

- Elevator Trim Stall (Demonstration)

#### **COMPLETION STANDARDS:**

All tasks will be performed to the standards of the Private Pilot ACS unless indicated otherwise.

**Risk Management – FRAT**. Based on a scenario provided by the instructor use the FRAT to assess the risk and response.

**Steep Turns**: Maintain bank angle +/-10 degrees, airspeed +/-15 knots, altitude +/- 150 feet, roll out heading +/-15 degrees.

**Stalls:** Recovery heading +/-15 degrees

**Systems and Equipment Malfunctions**: Promptly recognize the selected malfunctions and describe/perform corrective actions.

**Emergency Approach and Landing (Simulated):** Execute the procedure without instructor assistance while maintaining best glide speed +/- 15 knots during the emergency approach.

**Go-Around/Rejected Landing**: Prompt go-around initiated in response to scenario provided by the instructor. Airspeed Vy -5/+15 knots.

**Forward Slips to a Landing**: Executed with minimal instructor assistance in round out and flare. Touchdown point -0/+500 feet.

**Normal Approach and Landings:** Executed with minimal instructor assistance in round out and flare. Touchdown point -0//+ 500 feet.

**Elevator Trim Stall**: Recognize and avoid situations that could lead to an elevator trim stall.

DI	So	Dnt	Dxc	Sxc	ldl	Nldg	AATD	PP	GI	
1.7					0.2			0.5		
2.0					0.2			0.5		

#### STAGE I FLIGHT LESSON 10 DUAL - LOCAL

#### LESSON OBJECTIVE:

During this lesson, the student will practice the listed maneuvers. The instructor will also discuss situations that could lead to an inadvertent spin and spin recovery procedures. The instructor will also demonstrate a cross control stall.

#### **CONTENT:**

#### Lesson Review

- Steep Turns
- Straight-and-Level Flight (IR)
- Straight, Constant Airspeed Climbs (IR)
- Straight, Constant Airspeed Descents (IR)
- Turns to Headings (IR)
- Recovery from Unusual Flight Attitudes (IR)
- Go-Around/Rejected Landing
- Systems and Equipment Malfunction (at least two)
- Emergency Descent
- Forward Slips to Landing
- Normal Approach and Landing

#### **Lesson Introduction**

- Spin Awareness (Discussion)
- Cross Control Stall (Imminent) (Demonstration)

#### **COMPLETION STANDARDS:**

All tasks will be performed to the standards of the Private Pilot ACS unless indicated otherwise

**Steep Turns:** Maintain bank angle +/-10 degrees, airspeed +/-15 knots, altitude +/- 150 feet, roll out heading +/-15 degrees.

**Aircraft Control (IR)**: Altitude +/-300 feet, heading +/-30 degrees, airspeed +/-20 knots

**Go-Around/Rejected Landing**: Prompt go-around initiated in response to scenario provided by the instructor. Airspeed Vy -5/+15 knots.

**Emergency Descent:** In a scenario provided by the instructor determine the need for an emergency descent and perform the procedure without instructor assistance. Airspeed top of white arc 0/-20 knots.

**Forward Slips to a Landing**: Executed with minimal instructor assistance in round out and flare. Touchdown point -0/+500 feet.

**Normal Approach and Landings:** Executed with minimal instructor assistance in round out and flare. Touchdown point -0//+ 500 feet.

**Spin Awareness**: Understand aerodynamic conditions that lead to a spin and procedures for spin recovery.

**Cross Control Stall:** Recognize and avoid situations that could lead to a cross control stall.

DI	So	Dnt	Dxc	Sxc	ldl	Nldg	AATD	PP	GI	
1.7					0.2			0.5		
2.0					0.2			0.5		

**STAGE I FLIGHT LESSON 11** 

**DUAL - LOCAL** 

## **LESSON OBJECTIVE:**

During this lesson, the instructor will evaluate the student's progress to determine readiness for solo flight and to correct any faulty performance areas.

#### **CONTENT:**

#### Lesson Review

- Risk Management FRAT
- Preflight Assessment
- Flight Deck Management
- Engine Starting
- Taxiing
- Before Takeoff Check
- Communications/Light Signals
- Traffic Patterns
- Normal Takeoff and Climb
- Maneuvering During Slow Flight
- Power-Off Stalls
- Power-On Stalls
- Straight-and-Level Flight (IR)
- Turns to Headings (IR)
- Constant Airspeed Climbs (IR)
- Constant Airspeed Descents (IR)
- Recovery from Unusual Flight Attitudes (IR)
- Systems and Equipment Malfunctions (at least two)
- Emergency Approach and Landing (Simulated)
- Ground Reference Maneuvers (at least one)

- Traffic Pattern Operations
- Normal Approach and Landing
- Postflight Procedures

#### **COMPLETION STANDARDS:**

**Risk Management – FRAT**. Based on a scenario provided by the instructor use the FRAT to assess the risk and response.

All tasks will be performed to the standards of the Private Pilot ACS with the following exceptions.

**Maneuvering During Slow Flight**: Altitude +/-150 feet, Airspeed +10/-0 knots, Heading +/-15 degrees.

**Stalls:** Recovery Heading +/-15 degrees

**Aircraft Control (IR)**: Altitude +/-300 feet, heading +/-30 degrees, airspeed +/-20 knots

**Emergency Approach and Landing (Simulated):** Execute the procedure without instructor assistance while maintaining best glide speed +/- 15 knots during the emergency approach.

**Ground Reference Maneuvers:** Fly specific ground tracks while maintaining altitude within +/- 150 feet, airspeed +/-10 knots.

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# STAGE I FLIGHT LESSON 12 QUIZ

## **LESSON OBJECTIVE:**

The objective of this lesson is to evaluate the student's aeronautical knowledge through a written quiz specified by 14 CFR Section 61.87(b).

# **CONTENT:**

Applicable Parts of FAR's 61 and 91 Airspace Rules and Procedures for the Local Airport Flight Characteristics and Operational Limitations of the Aircraft to be Flown

## **COMPLETION STANDARDS:**

Score at least a 70% on the quiz. In addition, the instructor will review those questions missed.

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1.5					0.1			0.5	0.5	

#### STAGE I FLIGHT LESSON 13 DUAL STAGE CHECK

#### LESSON OBJECTIVE:

During this stage check, the chief/assistant chief or check instructor evaluates the student's abilities to determine if the student is prepared for solo flight in the local practice area.

#### CONTENT:

#### Lesson Review

- Aircraft Documents
- Operation of Systems
- -- Engine/Propeller
- -- Vacuum System
- -- Pitot Static System
- -- Fuel System
- -- Electrical System
- Computation of Performance
- Computation of Weight and Balance
- Risk Management FRAT
- Airspace and Procedures in Local Practice Area
- Systems and Equipment Malfunctions (at least two)
- Communications/Light Signals
- Preflight Assessment
- Flight Deck Management
- Engine Starting
- Taxiing
- Before Takeoff Check
- Communications
- Use of Transponder
- Traffic Patterns
- Normal Takeoff and Climb
- Power-Off Stalls
- Power-On Stalls

- Maneuvering During Slow Flight
- Straight-and-Level Flight (IR)
- Turns to Headings (IR)
- Constant Airspeed Climbs (IR)
- Constant Airspeed Descents (IR)
- Recovery from Unusual Flight Attitudes (IR)
- Systems and Equipment Malfunctions (at least two)
- Steep Turns
- Emergency Approach and Landing (Simulated)
- Emergency Descent
- Ground Reference Maneuvers (at least one)
- Traffic Pattern Operations
- Normal Approach and Landing
- Postflight Procedures

#### **COMPLETION STANDARDS:**

**Risk Management – FRAT**. Based on a scenario provided by the instructor use the use the FRAT to assess the risk and response.

All tasks will be performed to the standards of the Private Pilot ACS with the following exceptions:

**Stalls:** Recovery Heading +/-15 degrees

**Steep Turns:** Maintain bank angle +/-10 degrees, airspeed +/-15 knots, altitude +/-150 feet, roll out heading +/-15 degrees.

**Maneuvering during slow flight:** Altitude +/-150 feet, Airspeed +10/-0 knots, Heading +/-15 degrees.

**Aircraft Control (IR)**: Altitude +/-300 feet, heading +/-30 degrees, airspeed +/-20 kts.

**Emergency Approach and Landing:** Execute the procedure while maintaining best glide speed +/-15 knots during the emergency approach.

**Emergency Descent:** In a scenario provided by the evaluator determine the need for an emergency descent and perform the procedure. Airspeed top of white arc 0/-20 knots.

**Ground Reference Maneuvers:** Fly specific ground tracks while maintaining altitude within +/150 feet, airspeed +/-10 knots.

## **STAGE II**

# STAGE OBJECTIVE

This stage allows the student to expand the skills learned in the previous stage. The student is introduced to supervised solo operations, as well as short and soft field takeoff and landing procedures. The student will review ground reference maneuvers. The student will learn to plan and conduct cross-country flights using pilotage, dead reckoning, and radio navigation. The student will also learn to conduct safe flight in the national airspace system. Additionally, greater emphasis is placed on attitude control by instrument reference to increase the student's skill and safety.

# STAGE COMPLETION STANDARD

Prior to the completion of this stage, the student must pass a stage check to demonstrate:

- Proficiency and knowledge of airplane operations necessary to begin flight outside the local area.
- Accurately plan and conduct cross country flights.
- The need for a short field and soft field landing, takeoffs and landings and execute these procedures.

The specific tasks to be accomplished and completion standards are contained in Stage II, Flight Lesson 12.

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#### STAGE II FLIGHT LESSON 1

**DUAL and SOLO - LOCAL** 

## **LESSON OBJECTIVE:**

During the dual portion of the lesson, the instructor will review takeoff and landing procedures to check the student's readiness for solo flight; and, in the second portion of the lesson, the student will fly a supervised solo flight in the local traffic pattern.

#### **CONTENT:**

## **Lesson Review**

- Preflight Procedures
- Airport Operations
- Normal Takeoff and Climb
- Normal Approach and Landing

# **Lesson Introduction (Supervised Solo)**

- Preflight Procedures
- Airport Operations
- Normal Takeoff and Climb
- Normal Approach and Landing

## **COMPLETION STANDARDS:**

This lesson is complete when the student accomplishes a supervised solo as directed by the instructor. This will consist of at least two solo normal takeoffs and landings.

All tasks will be performed to the standards of the Private Pilot ACS.

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#### **STAGE II FLIGHT LESSON 2**

**DUAL - LOCAL** 

#### LESSON OBJECTIVE:

During this lesson the student will review airport operations. The student will be introduced to short-field takeoff and maximum performance climb, soft-field takeoff and climb, short-field approach and landing and soft-field approach and landing.

#### **CONTENT:**

#### Lesson Review

- Airport Operations

#### **Lesson Introduction**

- Performance and Limitations
- -- Computation of Short Field Takeoff Performance Rotation Speed, Ground Roll, Distance over a 50-foot obstacle
- -- Computation of Short Field Landing Performance Approach Speed, Distance over a 50 foot Obstacle and Landing Ground Roll
- -- Determine Whether the Airplane can Safely Takeoff and Land Using Short Field Takeoff and Landing Procedures at an Airport
- Short Field Takeoff and Maximum Performance Climb
- Soft Field Takeoff and Climb
- Short Field Approach and Landing
- Soft Field Approach and Landing

#### **COMPLETION STANDARDS:**

**Airport Operations:** Performed to the standards of the Private Pilot ACS.

**Performance and Limitations:** Compute short field takeoff and landings distances and determine whether the airplane can safely takeoff and land on the intended runway.

**Short and Soft Field Takeoffs and Landings:** Understand the purpose and procedures for performing these types of takeoffs and landings and perform them with instructor assistance.

# University of Oklahoma

Private Pilot Course

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## STAGE II FLIGHT LESSON 3 DUAL-LOCAL

#### **LESSON OBJECTIVE:**

During this lesson the student will refine their skills performing ground reference maneuvers, emergency procedures, and short and soft field takeoffs and landings.

#### CONTENT:

#### Lesson Review

- Steep Turns
- Straight-and-Level Flight (IR)
- Turns to Headings (IR)
- Constant Airspeed Climbs (IR)
- Constant Airspeed Descents (IR)
- Recovery from Unusual Flight Attitudes (IR)
- Systems and Equipment Malfunctions (at least two)
- Emergency Descent
- Emergency approach and Landing
- Ground Reference Maneuvers (at least one)
- Short-Field Takeoff and Maximum Performance Climb
- Soft-Field Takeoff and Climb
- Short-Field Approach and Landing
- Soft-Field Approach and Landing

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## **COMPLETION STANDARDS:**

All maneuvers will be performed to the standards of the Private Pilot ACS with the following exceptions:

Short Field Takeoff and Maximum Performance Climb: Maintains Vx +15/-5 knots

**Soft Field Takeoff and Climb:** Maintains Vx +15/-5 knots when Vx is called for. Maintain Vy +10/-5 knots.

**Short Field Approach and Landings:** Touchdown -0/+300 feet of specified touchdown point.

**Soft Field Approach and Landings**: Establish an attitude in the flare that will maintain back pressure to keep the nose wheel from touching down after landing.

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# STAGE II FLIGHT LESSON 4 DUAL AATD (Simulated Instrument)

#### **LESSON OBJECTIVE:**

During this lesson the student is introduced navigation procedures using VOR's and GPS in the AATD. The student will become familiar with operation of VOR and GPS equipment. In addition, cross-country planning and operational considerations will be discussed during the pre-flight briefing. Note: Instrument time in the AATD may not be used to satisfy instrument time requirements in the aircraft.

## **CONTENT:**

#### **Lesson Introduction**

Cross-Country Flight Procedures

- Flight Deck Management
- Power Settings and Mixture Control

#### Navigation

- Radio Communications, Navigation Systems/Facilities and Radar Services
- VOR Orientation Course Interceptions and Tracking
- VOR Cross Check
- GPS Orientation and Tracking
- Use of GPS Moving Map Page
- Use of GPS to Determine Ground Speed, ETE and ETA
- Use of NRST Function

#### **COMPLETION STANDARDS:**

Understand how to organize the flight deck for cross country flight and demonstrate proper power setting and mixture leaning procedures. With instructor assistance maintain aircraft control while programming radio and navigation equipment and following ATC instructions while in simulated instrument conditions.

**VOR**: Tune and identify VOR frequencies, determine which VOR radial the aircraft is on and intercept and track courses to and from a VOR.

**GPS:** Use the GPS receiver to program a direct course to a fix or location, use the moving map page, determine ground speed, estimated time enroute and estimated time of arrival to a location and use the "Nearest Function" to determine location of nearby airports, ARTCC and AFSS frequencies.

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1.0					0.3			0.5		

## STAGE II FLIGHT LESSON 5 DUAL - LOCAL

#### **LESSON OBJECTIVE:**

The instructor will evaluate the student's takeoff, landing, and stall performance and introduce the use of VOR's and GPS in the aircraft. Additionally, airplane control by instrument reference during emergency situations is introduced to broaden the student's instrument proficiency.

#### **CONTENT:**

#### Lesson Review

- Short-Field Takeoff and Maximum Performance Climb
- Forward Slip to a Landing
- Short-Field Approach and Landing

#### **Lesson Introduction**

- VOR Orientation and Tracking (IR)
- GPS Orientation and Course Programming (IR)
- Radio Communications, Navigation Systems/Facilities and Radar Services (IR)

## **COMPLETION STANDARDS:**

Short Field Takeoff and Maximum Performance Climb: Maintains Vx + 15/-5 knots.

**Short Field Approach and Landing:** Touchdown -0/+300 feet beyond the specified touchdown point.

**VOR/GPS:** Determine what VOR radial the aircraft is on, track to and from a VOR, program the GPS to fly to an airport. Use the GPS to determine the nearest airport, ARTCC and AFSS frequencies.

**Radio Communications, Navigation Systems/Facilities and Radar Services:** Demonstrate the ability to program radio and navigation equipment and follow radar vectors while maintaining control of the aircraft in instrument conditions. Altitude +/- 250 feet, Heading +/- 15 degrees, Airspeed +/- 15 knots.

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	1.0							0.5		2	

# STAGE II FLIGHT LESSON 6 SOLO – LOCAL LESSON OBJECTIVE:

During this lesson, the student will practice the listed maneuvers to gain proficiency and confidence.

## **CONTENT:**

## **Lesson Review**

- Preflight Procedures
- Airport Operations
- Soft Field Takeoff and Climb

- Short Field Takeoff and Maximum Performance Climb
- Power-off Stall
- Power-on Stalls
- Maneuvering During Slow Flight
- Soft Field Approach and Landing
- Short Field Approach and Landing
- Postflight Procedures

# **COMPLETION STANDARDS:**

This lesson is complete when the student has conducted the assigned solo flight.

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## STAGE II FLIGHT LESSON 7 DUAL - LOCAL

#### **LESSON OBJECTIVE:**

During this lesson, the student will review flight maneuvers with special emphasis on correcting any deficient areas.

#### **CONTENT:**

#### Lesson Review

- Ground Reference Maneuvers (at least one)
- Steep Turns
- Straight-and-Level Flight (IR)
- Turns to Headings (IR)
- Constant Airspeed Climbs (IR)
- Constant Airspeed Descents (IR)
- Inadvertent Flight into IMC/Recovery from Unusual Flight Attitudes (IR)
- Short-Field Takeoff and Maximum Performance Climb
- Short-Field Approach and Landing
- Soft-Field Takeoff and Climb
- Soft -Field Approach and Landing
- Forward Slips to Landing
- Go-Around/Rejected Landing
- Risk Management FRAT

#### **COMPLETION STANDARDS:**

All maneuvers will be flown to the standards of the Private Pilot ACS with the following exceptions:

**Short Field Takeoff and Maximum Performance Climb:** Maintains Vx +15/-5 knots

**Soft Field Takeoff and Climb:** Maintain Vx + 15/-5 knots when Vx is called for. Maintain Vy + 10/-5 knots.

**Short Field Approach and Landing:** Touchdown -0/+300 feet beyond the specified touchdown point.

# University of Oklahoma

# Private Pilot Course

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3.0			3.0					0.5		

#### **STAGE II FLIGHT LESSON 8**

#### **DUAL CROSS-COUNTRY**

#### LESSON OBJECTIVE:

During this lesson the student is introduced to the procedures and the techniques to be used in planning and executing a cross-country flight which will consist of a flight of more than 100 nautical mile total distance with at least one landing at an airport greater than 50 nautical miles from OUN. The instructor will provide the student a notional payload that will require the student to determine how much fuel the airplane can carry. The student will continue to gain proficiency on short and soft field takeoffs and landings.

#### **CONTENT:**

#### **Lesson Review**

- Short Field Takeoff and Maximum Performance Climb
- Short Field Approach and Landing
- Soft Field Takeoff and Climb
- Soft Field Approach and Landing

#### Lesson Introduction

Weather Information: Obtain a Weather Briefing from AFSS, Including NOTAM's

Cross-Country Flight Planning

- National Airspace System
- Route Planning/Check Point Selection
- Altitude Selection
- Performance: Calculating
- -- Time, distance, fuel to climb and descend
- -- Ground Speed, Estimated Time Enroute

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- -- True Course and Magnetic Heading
- -- Fuel Usage and Reserves
- Limitations
- Apply NOTAM Information
- Completion of the NAVLOG
- Completing and filing an ICAO Flight Plan
- Risk Analysis FRAT

## Flight Deck Management

Access FIS-B Weather Data in the Aircraft

#### AFSS Services

- Open/Close VFR ICAO Flight Plan
- Obtain Weather Updates
- Provide PIREPs

Power Settings and Mixture Control

## Pilotage and Dead Reckoning

- Departure
- Course Interception
- Pilotage
- Dead Reckoning
- Estimates of Ground speed and ETA

# Navigation Systems and Radar Services

- Position checking using VOR's
- GPS Navigation
- ATC Services Obtaining Flight Following

#### Diversion

Lost Procedures

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Airport Operations/Traffic Patterns

- Controlled Airports
- Uncontrolled Airports

#### **COMPLETION STANDARDS:**

**National Airspace System:** Identify the types of controlled and special use airspace through which the flight is planned as well as interpret topographic and other features on the VFR sectional Chart. Use the Chart Supplement to augment information provided by the VFR Sectional Chart.

**Cross Country Flight Planning:** With instructor assistance create a NAVLOG allowing for the flight to be completed using a combination of pilotage, dead reckoning and use of VOR and GPS navigation systems.

Weather/NOTAM Analysis: Obtain a weather briefing and with instructor assistance use the information for flight planning and making a go/no-go decision.

**Limitations:** Given environmental conditions determine whether the airplane has the performance

## **STAGE II, FLIGHT LESSON 8 (Continued)**

to achieve the required ground speed, altitude and has the fuel endurance to safely make the cross country flight.

**Pilotage/Dead Reckoning:** Identify check points and landmarks along the route of flight.

Apply the computed wind correction angle. Arrive at each check point within 8 minutes of the time computed on their navigation log. Determine actual ground speed and adjust ETA's to subsequent check points.

## **Navigation Systems and Radar Services:**

- Contact a TRACON or ARTCC to obtain flight following services.
- Use the GPS "Direct" function to determine a course to an airport as well as determine ETE, ETA and ground speed. Use the "NRST" function to

determine the location of the nearest airports, AFSS and ARTCC frequencies. - Use VOR's to cross check position.

**AFSS Services:** Open and close an ICAO VFR Flight Plan, Contact AFSS for weather updates and provide at least one PIREP.

**Diversion Procedures:** Given a scenario presented by the instructor learn how to divert to a nearby airport.

**Lost Procedures**: Given a scenario presented by the instructor learn the appropriate actions when in doubt of the aircraft position.

**Aircraft Control:** Altitude +/-250 feet, Heading +/-20 degrees, Airspeed +/-10 knots

Airport Operations/Traffic Patterns/Takeoffs/Landings: Demonstrate correct airport operations and traffic pattern entry at both controlled and uncontrolled airports. In scenarios provided by the instructor determine the need for and execute at least one short-field takeoff and maximum performance climb one soft-field takeoff and climb, a short-field approach and landing and a soft-field approach and landing. Short field takeoff and maximum performance climbs, soft field takeoff and climb, short and soft field landings will be performed to the standards of the private pilot ACS with the following exceptions. At least one takeoff and landing will be at an airport greater than 50 nautical miles from OUN.

- Short Field Takeoff and Maximum Performance Climb: Maintains Vx + 15/-5 knots
- Soft Field Takeoffs: Maintain Vx +15/-5 knots when Vx is called for. Maintain Vy +10/-5 knots.
- **Short Field Landings:** Touchdown -0/+300 feet beyond of specified touchdown point.

Note: If short and soft field takeoffs and landings do not meet lesson completion standards during the cross-country portion of the lesson they may be completed by in a local area traffic pattern.

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1.0		1.0				1		0.5		

# STAGE II FLIGHT LESSON 9 DUAL - LOCAL, NIGHT

## **LESSON OBJECTIVE:**

During this lesson, the student is introduced to the operational aspects of night flight. Special emphasis is placed upon the student learning the additional planning and flight considerations necessary when operating in the night environment.

## **CONTENT:**

#### **Lesson Introduction**

Night Preflight Preparation and Procedures

- Human Factors
- Flight Planning Considerations
- Preflight Inspection
- Preparation and Equipment
- Taxiing

# Night Flight

- Power-off Stalls
- Power-on Stalls
- Steep Turns
- Maneuvering During Slow Flight
- Normal Takeoff and Climb
- Normal Approach and Landing
- Emergency Approach and Landing (Simulated)
- Emergency Descent

## **COMPLETION STANDARDS:**

Gain an appreciation of additional factors involved in preparing for and conducting flight at night. All maneuvers will meet the standards of the Private Pilot ACS with the following exceptions:

**Aircraft Control:** Display an understanding of the importance of attitude control while flight at night. Altitude will be controlled within +/- 150 feet and heading +/-15 degrees and airspeed +/-15 knots during all maneuvers.

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**Private Pilot Course** 

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3.0		3.0	3.0		0.1	2		0.5		

## STAGE II FLIGHT LESSON 10 DUAL - CROSS-COUNTRY NIGHT

#### **LESSON OBJECTIVE:**

During this lesson, the student is introduced to night cross-country procedures and the proper techniques to be used during flights out of the local training area. This flight prepares the student to make cross-country flights as the sole occupant of the airplane and will consist of a cross country flight of more than 100 nautical mile total distance with at least one landing at an airport greater than 50 nautical miles from OUN. All landings will be made to a full stop (with each landing involving a flight in the traffic pattern) at an airport.

#### **CONTENT:**

#### Lesson Review

- Weather Information
- Cross Country Flight Planning
- AFSS Services
- Pilotage and Dead Reckoning
- Navigation Systems and Radar Services
- Lost Procedures
- National Airspace System
- Night Preflight Preparation and Procedures

#### **Lesson Introduction**

Night Cross-Country flight Planning

- Selection of Check Points for Night Flight
- Fuel Requirements for Night Flight

Night Cross-Country Flight

- Diversion Considerations when Flying at Night
- Electrical System Failure/Failure of Interior and Exterior Lighting Systems
- Inadvertent Flight into IMC (IR)
- Risk Management Considerations for Night Flight

**Night Airport Operations** 

- Controlled Airports
- Uncontrolled Airports

#### **COMPLETION STANDARDS:**

Cross Country Flight Planning: Create a NAVLOG allowing for the flight to be completed using a combination of pilotage, dead reckoning and use of VOR and GPS navigation systems. Given environmental conditions determine whether the airplane has the performance to achieve the required ground speed, altitude and has the fuel endurance to safely make the cross country fligh

**Weather/NOTAM Analysis:** Obtain a weather briefing and use the information for flight planning and making a go/no-go decision.

**AFSS Services:** Open and close an ICAO VFR Flight Plan, Contact AFSS for weather updates and provide at least one PIREP.

**Pilotage/Dead Reckoning:** Identify landmarks along the route of flight and apply the computed wind correction angle. Arrive at each check point within 5 minutes of the time computed on the navigation log. Given a scenario provided by the instructor the determine actual ground speed and adjust ETA's to subsequent check points.

## **Navigation Systems and Radar Services:**

- Contact a TRACON or ARTCC to obtain flight following services.
- Use the GPS "Direct" function to determine a course to an airport as well as determine ETE, ETA and ground speed. Use the "NRST" function to determine the location of the nearest airports, AFSS and ARTCC frequencies.
- Use VOR's to cross check position.

**Diversion Procedures**: Given a scenario presented by the instructor execute the procedures to divert to a nearby airport.

**Lost Procedures**: Given a scenario presented by the instructor demonstrate the appropriate actions to take when in doubt of the aircrafts position.

**Airport Operations:** Perform a pattern entry with a normal approach and landing to a full stop and subsequent normal takeoff from an unfamiliar airport. At least one landing will be at an airport more than 50 nautical miles from OUN.

Normal Takeoff and Climb: To the standards of the Private Pilot ACS.

Normal Approach and Landing: To the standards of the Private Pilot ACS.

**Aircraft Control**: (VR): Altitude will be controlled within +/-200 feet and heading +/-15 degrees (IR): Altitude +/-250 feet, Heading +/-20 degrees, Airspeed +/-10 knots.

**Risk Management:** Apply the FRAT to ensure the flight can be conducted safely.

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# **STAGE II FLIGHT LESSON 11**

QUIZ

## LESSON OBJECTIVE

The objective of this lesson is to test the student's knowledge through a quiz. The quiz will consist of the following topics.

## **CONTENT:**

Short Field Takeoff and Climb
Short Field Approach and Landing
Soft Field Takeoff and Climb
Soft Field Approach and Landing
Night Operations
Weather Information
Cross country Planning
National Airspace System
ICAO Flight Plan

## **COMPLETION STANDARDS:**

Score at least 70% on the quiz. In addition, the instructor is responsible for reviewing those questions missed.

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1.5					0.2			0.5	0.5	

#### **STAGE II FLIGHT LESSON 12**

**DUAL - STAGE CHECK** 

#### LESSON OBJECTIVE:

This stage check, conducted by the chief, assistant, or check instructor will evaluate the student's ability to plan and conduct cross-country flights. The student will plan a cross-country flight to a destination greater than 50 nautical miles distance from OUN. The student will be given a notional payload that will require them to determine how much fuel they can carry.

#### **CONTENT:**

#### **Lesson Review**

Preflight Preparation

- Weather Information
- Cross-Country Planning
- National Airspace System

Preflight Procedures – Flight Deck Management

#### Navigation

- ICAO Flight Plan
- Use of Power Settings and Mixture Control
- Departure
- Course Interception
- Obtaining Flight Following
- VOR Navigation
- GPS Navigation

- Pilotage
- Dead Reckoning
- Diversion to Alternate
- Lost Procedures

Systems and Equipment Malfunctions (at least two)

Inadvertent Flight into IMC/Recovery from Unusual Flight Attitudes (IR)

**Emergency Descent** 

Takeoffs and Landings

- Short Field Takeoff and Maximum Performance Climb
- Short Field Approach and Landing
- Soft Field Takeoff and Climb
- Soft field Approach and Landing

#### **COMPLETION STANDARDS:**

Weather Information: Obtain a weather briefing and explain the briefing to the evaluator and how this information was used to make a go/no-go decision.

**Cross Country Flight Planning:** Create a NAVLOG allowing for the flight to be completed using a combination of pilotage, dead reckoning and use of VOR and GPS navigation systems. The student demonstrate to the flight can realistically be executed as planned.

ICAO Flight Plan: Simulate filing, opening, and closing ICAO Flight Plan.

**Flight Following:** Determine correct ATC frequency and establish communications with ATC.

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**Navigation:** Use the NAVLOG to execute the flight plan to the top of climb and the first two check points after the top of climb. Through a combination of pilotage, dead reckoning and use of VOR's and GPS arrive at each checkpoint within 5 minutes of the planned or updated ETA.

**Systems and Equipment Malfunctions**: Recognize the nature of the malfunction and respond appropriately.

**Emergency Descent:** Given a scenario presented by the evaluator determine the need for an emergency descent and execute it to the standards of the Private Pilot ACS.

**Diversion:** Given a scenario presented by the evaluator, determine the need to divert to a nearby airport and execute the diversion. Arrive at the diversion airport within 5 minutes of ETA, correctly enter the traffic pattern and execute the appropriate type of landing.

**Lost Procedures**: Given a scenario presented by the evaluator take appropriate actions when the position of the aircraft is in doubt.

**Aircraft control**: **(VR)**: To Private Pilot ACS standards **(IR)**: Altitude: +/-250 feet, Heading: +/-25 degrees, Airspeed: +/-15 knots.

**VOR:** The student will be able to correctly identify the VOR Radial, distance to the station, and heading to fly to the station.

**GPS**: The student will be able to correctly load a flight plan on the GPS, determine the nearest airport, and display current and forecast weather if available. The student will accurately determine GS, ETA, and distance to the programed fixes and use the NRST function.

**Short Field Takeoff and Maximum Performance Climb:** Private Pilot ACS Standards except Vx +15/-5 KIAS.

+15/-5 knots Vy +10/-5 knots.

Short Field Approach and Landing: Performed to Private Pilot ACS

Soft Field Takeoff and Climb: Private Pilot ACS Standards except Vx

**Short Field Approach and Landing:** Performed to Private Pilot ACS standards, except touchdown -0/+250 ft.

**Soft Field Approach and Landing**: Performed to Private Pilot ACS Standards.

# **STAGE III**

# **STAGE OBJECTIVE**

During this stage, the student will complete solo cross country requirements. In addition, the student will increase proficiency in order to meet or exceed the standards of the Private Pilot ACS.

# STAGE COMPLETION STANDARD

The student must complete a comprehensive final stage check. The details of this stage check are contained in Stage 3, Flight Lesson 8.

DI	So	Dnt	Dxc	Sxc	ldl	NIdg	AATD	PP	GI	SOCT LDG	
	2.5			2.5						1	
	2.5			2.5						1	

## STAGE III FLIGHT LESSON 1 SOLO - CROSS-COUNTRY

## LESSON OBJECTIVE

During this lesson, the student will complete the cross-country requirement. This flight must be of at least 100 nautical miles, with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of more than 50 nautical miles between the takeoff and landing locations.

## **CONTENT:**

#### **Lesson Review**

- Preflight Preparation
- Preflight Procedures
- Airport Operations
- Normal Takeoff and Climb
- Normal Approach and Landing
- -Navigation
- Post Flight Procedures

## **COMPLETION STANDARDS**

The student will complete the solo cross-country flight defined in the lesson objective.

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DI	So	Dnt	Dxc	Sxc	ldl	Nldg	AATD	PP	GI	
0.7					0.2			0.5		
1.0					0.2			0.5		

## STAGE III FLIGHT LESSON 2 DUAL - LOCAL

#### **LESSON OBJECTIVE:**

During this flight, the instructor will review flight maneuvers to demonstrate proficiency required by the Private Pilot ACS.

## **CONTENT:**

#### **Lesson Review**

- Preflight Procedures
- Airport Operations
- Short Field Takeoff and Maximum Performance Climb
- Short Field Approach and Landing
- Forward Slips to Landing
- Go-Around From a Rejected Landing
- Systems and Equipment Malfunctions (at least two)
- Emergency Descent
- Steep Turns
- Maneuvering During Slow Flight
- Power-On Stall
- Power-Off Stall
- Postflight Procedures

## **COMPLETION STANDARDS:**

Complete all maneuvers to the standards of the Private Pilot ACS.

DI	So	Dnt	Dxc	Sxc	ldl	Nldg	AATD	PP	GI	SOCT	
										LDG	
	1.0							0.5		1	
	1.0							0.5		1	
										SEE	
										NOTE	

#### STAGE III FLIGHT LESSON 3 SOLO - LOCAL

## **LESSON OBJECTIVE:**

During this flight, the student will review the listed procedures:

## **CONTENT:**

## **Lesson Review**

- Preflight Procedures
- Airport Operations
- Short Field Takeoff and Maximum Performance Climb
- Short Field Approach and Landing
- Forward Slip to a Landing
- Steep Turns
- Maneuvering During Slow Flight
- Power-On Stalls
- Power-Off Stalls
- Postflight Procedures

## **COMPLETION STANDARDS:**

The lesson is complete when the student completes the solo flight.

NOTE: By the lesson the student will have completed a minimum of three solo takeoffs and landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport with an operating control tower.

DI	So	Dnt	Dxc	Sxc	ldl	Nldg	AATD	PP	GI	
1.0		1.0			0.2	1		0.5		
1.0		1.0			0.2	1		0.5		
						SEE				
						NOTE				

#### STAGE III FLIGHT LESSON 4

**DUAL - LOCAL, NIGHT** 

#### LESSON OBJECTIVE:

During this lesson, the student reviews the operational aspects of night flight.

#### **CONTENT:**

#### **Lesson Review**

- Night Preparation
- Preflight Procedures
- Airport Operations
- Normal Takeoff and Climb
- Normal Approach and Landing
- Straight and Level Flight (IR)
- Constant Airspeed Climbs (IR)
- Constant Airspeed Descents (IR)
- Turns to Headings (IR)
- Recovery from Unusual Attitudes (IR)
- Systems and Equipment Malfunction (at least two)
- Maneuvering During Slow Flight
- Power-off Stalls
- Power-on Stalls
- Postflight Procedures

# **COMPLETION STANDARDS:**

Complete all maneuvers to the standards of the Private Pilot ACS.

Note: Through a combination of this lesson, stage II lesson 9, and stage II lesson 10, the student will have completed 10 takeoffs and landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport.

DI	So	Dnt	Dxc	Sxc	ldl	Nldg	AATD	PP	GI	
0.7					0.2			0.5		
1.0					0.2			0.5		

## STAGE III FLIGHT LESSON 5 DUAL - LOCAL

## **LESSON OBJECTIVE:**

During this flight, the instructor reviews and evaluates the student's proficiency in the indicated procedures.

#### **CONTENT:**

## **Lesson Review**

- Preflight Procedures
- Airport Operations
- Soft Field Takeoff and Climb
- Soft Field Approach and Landing
- Straight and Level Flight (IR)
- Turns to Headings (IR)
- Constant Airspeed Climbs (IR)
- Constant Airspeed Descents (IR)
- Unusual Attitude Recoveries (IR)
- Systems and Equipment Malfunctions (at least two)
- Emergency Approach and Landing
- Turns Around a Point
- S-Turns
- Rectangular Course
- Post Flight Procedures

## **COMPLETION STANDARDS:**

Complete all maneuvers to the standards of the Private Pilot ACS.

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DI	So	Dnt	Dxc	Sxc	ldl	NIdg	AATD	PP	GI	
0.7					0.1			0.5		
1.0					0.1			0.5		

## STAGE III FLIGHT LESSON 6 DUAL-LOCAL

#### LESSON OBJECTIVE:

During this flight, the instructor reviews and evaluates the student's proficiency in the listed procedures.

#### **CONTENT:**

#### **Lesson Review**

- Preflight Procedures
- Airport Operations
- Short Field Takeoff and Maximum Performance Climb
- Short Field Approach and Landing

- Soft Field Takeoff and Climb
- Soft Field Approach and Landing
- Forward Slip to a Landing
- Systems and Equipment Malfunction (at least two)
- Straight and Level Flight (IR)
- Turns to Headings (IR)
- Constant Airspeed Climbs (IR)
- Constant Airspeed Descents (IR)
- Unusual Attitude Recoveries (IR)
- Maneuvering During Slow Flight
- Power On Stalls
- Power Off Stalls
- Steep Turns
- Postflight Procedures

#### **COMPLETION STANDARDS:**

Complete all maneuvers to the standards of the Private Pilot ACS

8/	15	12	$\cap'$	72
0/	IJ	12	U.	43

DI	So	Dnt	Dxc	Sxc	ldl	Nldg	AATD	PP	GI	
									4.0	
									4.0	1

## STAGE III FLIGHT LESSON 7 OUIZ

#### LESSON OBJECTIVE

This lesson is to evaluate the student's knowledge through a quiz.

## **CONTENT:**

**Preflight Preparation** 

Preflight Procedures

Airworthiness Requirements

Weather Information

Cross Country Flight Planning

National Airspace System

Performance and Limitations

Operation of Systems

Human Factors

**Preflight Procedures** 

Airport Operations

Takeoffs, Landings and Go-Arounds

Performance and Ground Reference Maneuvers

Navigation

Slow Flight and Stalls

Basic Instrument Maneuvers

**Emergency Operations** 

Night Operations

Postflight Procedures

## **COMPLETION STANDARDS:**

Score at least 70% on the quiz. In addition, the instructor will review questions missed. The instructor will also review the student's FAA Private Pilot Airplane Knowledge test report and ensure satisfactory knowledge of the subject areas in which they were deficient.

DI	So	Dnt	Dxc	Sxc	ldl	Nldg	AATD	PP	GI	
1.5					0.2			0.5	1.5	
1.5					0.2			0.5	1.5	

# STAGE 3 FLIGHT LESSON 8 DUAL - FINAL STAGE CHECK

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

Pilot Qualifications (AOI, Task A)

Airworthiness Requirements (AOI, Task B)

Weather Information (AOI, Task C)

Cross-Country Flight Planning (AOI, Task D)

National Airspace System (AOI, Task E)

Performance and Limitations (AOI, Task F)

Operation of Systems (AOI, Task G)

Human Factors (AOI, Task H)

Preflight Assessment (AOII, Task A)

Flight Deck Management (AOII, Task B)

Engine Starting (AOII, Task C)

Taxiing (AOII, Task D)

Before Takeoff Check (AOII, Task F)

Communications, Light Gun Signals, and Runway Lighting Systems (AOIII, Task A)

Traffic Patterns (AOIII, Task B)

Normal Takeoff and Climb (AOIV, Task A)

Normal Approach and Landing (AOIV, Task B)

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Soft-Field Takeoff and Climb (AOIV, Task	k C)	Spin Awareness (AOVII, Task D)			
Soft-Field Approach and Landing (AOIV,	Task D)	Basic Instrument Maneuvers – Straight and Level Flight (AOVIII, Task A)			
Forward Slip to a Landing (AOIV, Task M Go-Around/Rejected Landing (AOIV, Task		Basic Instrument Maneuvers – Constant Airspeed Climbs (AOVIII, Task B)			
Short-Field Takeoff and Maximum Perform (AOIV, Task E)	nance Climb	Basic Instrument Maneuvers – Constant Airspeed Descents (AOVIII, Task C)			
Short-Field Approach and Landing (AOIV	, Task F)	Basic Instrument Maneuvers – Turns to Headings (AOVIII, Task D)			
Steep Turns (AOV, Task A)		,			
Ground Reference Maneuvers (AOV, Task	( B)	Basic Instrument Maneuvers – Recovery from Unusual Flight Attitudes (AOVIII, Task E)			
Pilotage and Dead Reckoning (AOVI, Task	k A)	Basic Instrument Maneuvers – Radio Communications, Navigation Systems/Facilities and Radar Services (AOVIII,			
Navigation Systems and Radar Services (A	AOVI, Task B)	Task F)			
Diversion (AOVI, Task C)		Emergency Descent (AOIX, Task A)			
Lost Procedures (AOVI, Task D)		Emergency Approach and Landing (Simulated) (AOIX, Task B)			
Maneuvering During Slow Flight (AOVII,	Task A)				
Power-Off Stalls (AOVII, Task B)		System and Equipment Malfunctions (AOIX, Task C)			
Power-On Stalls (AOVII, Task C)		Emergency Equipment and Survival Gear (AOIX, Task D)			

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Night Preparation (AOXI, Task A)

**COMPLETION STANDARDS:** 

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

Demonstrate proficiency accordance with the Private Pilot Airman Certification Standards

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# Appendix A

# CHIEF/ASSISTANT CHIEF FLIGHT INSTRUCTOR DESIGNATION

Chief Flight Instructor: George Hicks - 405-325-7277

Assistant Chief Flight Instructors: Phillip Donihoo - 405-325-7277 Gregory Christenson - 405-325-7277 Byron Semrau - 405-325-7277