

PRIVATE PILOT - ASEL PART 61 COURSE OUTLINE

This syllabus is designed to cover the all training requirements of student pilots under Part 61 Private Pilot Training Program. The student will obtain the aeronautical skill and experience necessary to meet the requirements for a Private Pilot Certificate for Airplane Single-Engine Land (ASEL).

It serves to ensure that all training requirements are covered to a skill level specified in the ACS, prior to a flight exam is entered into. The syllabus is divided into stages that allow crucial skills to be learned before progressing to the next level. Each lesson is described but does not replace a full and comprehensive lesson plan for each lesson. All times given are approximate values and take into consideration that students participate on a part-time basis and, as a result these times are sometimes increased.

During any aviation training program certain challenges are present. Inclement weather, unforeseen maintenance issues with aircraft, availability of flight instructors and varying student availability and progress are some of these challenges.

COURSE COMPLETION STANDARDS

The student must demonstrate through flight tests and logbook records that the aeronautical knowledge, skill, and experience requirements necessary to obtain a Private Pilot Certificate (ASEL) are accomplished.

This Part 61 Training Program is presented in a format so as to make it convenient to modify this document to fit a particular set of needs in order to produce a satisfying student experience and a high student success rate.

Things you will need to do:

1. Present your driver's license and your birth certificate or your passport to your flight instructor,
2. Make an appointment for an FAA Third Class Medical examination with an FAA certified Aviation Medical Examiner (Your flight instructor will provide a list of Aviation Medical Examiners)
3. Register with the FAA's Integrated Airman Certification and Rating Application (IACRA). IACRA is the web-based certification/rating application that guides the user through the FAA's airman application process. IACRA helps ensure applicants meet regulatory and policy requirements through the use of extensive data validation. It also uses electronic signatures to protect the information's integrity, eliminates paper forms, and prints temporary certificates.

Student Name _____

Instructor Name _____

Training Start Date _____

Training Complete Date _____

STUDENT NAME _____

Date of Audit _____

GENERAL ELIGIBILITY REQUIREMENTS - FAR 61.103

Requirement	Acquired
At Least 17 Years Old	<input type="checkbox"/>
At Least 3rd Class Medical Certificate	<input type="checkbox"/>
Holds a Student Pilot License	<input type="checkbox"/>
Knowledge Test Completed	<input type="checkbox"/>
	<input type="checkbox"/>

AERONAUTICAL EXPERIENCE REQUIREMENTS - FAR 61.109

Requirement	Required	Acquired	Remaining
Total Flight Time	40		
Dual Instruction	20		
Cross Country Dual Instruction	3		
Night Time Dual Instruction	3		
Night Dual Cross Country Flight Over 100NM Total Distance	1		
Night Takeoffs and Landing to a Full Stop	10		
Simulated Instrument Dual Instruction	3		
Total Solo Flight Time	10		
Solo Cross Country Flight Time	5		
Solo Cross Country Flight Over 150NM Total Distance	1		
Dual Instruction in 2 Calendar Months Leading up to Checkride	2		

AUDITING INSTRUCTORS NAME:

Table of Contents

STAGE I	7
LESSON 1 - Introduction to Training Aircraft	8
LESSON 2 - Introduction / Familiarization Flight	9
LESSON 3 - Airports	10
LESSON 4 - Aerodynamics	11
LESSON 5 - Stalls and Recoveries	12
LESSON 6 - Airplane Stability, Load Factors, Wake Turbulence	13
LESSON 7 - Climbs and Descents	14
LESSON 8 - Aircraft Performance	15
LESSON 9 - Power off & Power on Stalls, Steep Turns	16
LESSON 10 - Weather	17
LESSON 11 - Constant rate climbs and descents	18
LESSON 12 - Weather Reports & Forecasts	19
LESSON 13 - Ground Reference Maneuvers	20
LESSON 14 - Weather reports and forecasts	21
LESSON 15 - Flight Maneuvers Review	22
LESSON 16 - Emergency Procedures	23
LESSON 17 - Rejected Takeoffs & Go-Arounds	24
LESSON 18 - Pilot resource management / ADM	25
LESSON 19 - Crosswind takeoffs & landings and Slips	26
LESSON 20 - Aircraft Systems	27
LESSON 21 - Review Normal Take off & Landing, Slow Flight, Stalls	28
LESSON 22 - Aircraft Systems	29
LESSON 23 - Flight Review Take Off and Landings (Solo Prep)	30
LESSON 24 - Aircraft Systems, Flight Instrument & Maintenance Requirements	31
LESSON 25 - Flight Review Take Off and Landings (Solo Prep)	32
LESSON 26 - Airspace	33
PRE-STAGE CHECK – TIME SUMMARY	34
LESSON 27 - Pre-Solo Stage Check	35
LESSON 28 - Charts & Publications	36
LESSON 29 - Flight Review Take Off and Landings (Solo Prep)	37
LESSON 30 - Aeromedical & Human Factors	38
LESSON 31 - Flight Review: Take Off and Landing (Solo Prep)	39
LESSON 32 - Flight Review & Initial Solo	40

STAGE II	41
LESSON 33 - Principles of Navigation	42
LESSON 34 - Max Performance, Short & Soft Field Take Offs	43
LESSON 35 - Publications and Equipment / MEL	44
LESSON 36 - Max Performance Review & Practice	45
LESSON 37 - Cross Country Flight Planning	46
LESSON 38 - Local Area Solo Flight	47
LESSON 39 - Cross Country Flight Planning	48
LESSON 40 - Pilotage	49
LESSON 41 - Cross Country Flight Planning	50
LESSON 42 - Pilotage	51
LESSON 43 - Airspace and Communications	52
LESSON 44 - Solo Pilotage	53
LESSON 45 - Electronic aids to navigation	54
LESSON 46 - Pilotage Review Flight	55
PRE-STAGE CHECK – TIME SUMMARY	56
LESSON 47 - STAGE II Check	57
STAGE III	58
LESSON 48 - Introduction to Instrument Flying	59
LESSON 49 - Cross Country Planning	60
LESSON 50 - Cross Country Day Flight #1	61
LESSON 51 - Cross Country Day Flight #2	62
LESSON 52 - Solo Cross Country Day Flight	63
LESSON 53 - Night Flying	64
LESSON 54 - Night Flight #1	65
LESSON 55 - Cross Country Night Flight	66
LESSON 56 - Review Flight for Private Pilot Practical Test	67
LESSON 57 - Ground Knowledge Review	68
LESSON 58 - Review Flight for Private Pilot Practical Test	69
PRE-STAGE CHECK – TIME SUMMARY	70
STAGE III Check	71
Record of Extra Training	73
Record of Extra Training	74
Record of Extra Training	75
Record of Extra Training	76

STAGE		FLIGHT TIME						GROUND TIME
	LESSON	DUAL	SOLO	INST	DUAL XC	SOLO XC	NIGHT	DISCUSSION
I	<u>1</u>							1.2
I	<u>2</u>	1.2						0.2
I	<u>3</u>							1.2
I	<u>4</u>							1.2
I	<u>5</u>	1.2						0.2
I	6							1.2
I	7	1.2						0.2
I	8							1.2
I	9	1.2						0.2
I	10							1.2
I	11	1.2						0.2
I	12							1.2
I	13	1.2						0.2
I	14							1.2
I	15	1.2						0.2
I	16							1.2
I	17	1.2						0.2
I	18							1.2
I	19	1.2						0.2
I	20							1.2
I	21	1.2						0.2
I	22							1.2
I	23	1.2						0.2
I	24							1.2
I	25	1.2						0.5
I	26							1.2
Stage I Check	27	1.5						0.2
I	28							1.2
I	29	1.2						0.2
I	30							1.2
I	31	1.2						0.2
I	32	1.0	0.6					0.2
Stage Totals		19.3	0.6	0	0	0	0	22.7

STAGE		FLIGHT TIME						GROUND TIME
	LESSON	DUAL	SOLO	INST	DUAL XC	SOLO XC	NIGHT	DISCUSSION
II	33							1.2
II	34							0.2
II	35	1.2						1.2
II	36							0.2
II	37	1.2						1.2
II	38		1.0					
II	39							1.2
II	40	1.5						0.2
II	41							1.2
II	42	1.8						0.2
II	43							1.2
II	44		1.5					
II	45							1.2
II	46	1.0						0.2
II Stage Check	47	1.2						1.5
Stage Totals		7.9	2.5	0	0	0	0	10.9

STAGE		FLIGHT TIME						GROUND TIME
	LESSON	DUAL	SOLO	INST	DUAL XC	SOLO XC	NIGHT	DISCUSSION
III	48							1.2
III	49							0.2
III	50	1.5		0.5				1.2
III	51	1.5		0.5	1.5			0.2
III	52		2.0		1.5			1.2
III	53					2.0		
III	54	1.0		0.5			1.0	1.2
III	55	2.0		0.5	2.0		2.0	0.2
III	56	1.5		0.5				1.2
III	57							0.2
III	58	1.5		0.5				1.5
III Stage Check	59	1.2		0.3				
Stage Totals		10.2	2.0	3.3	5	2	3	8.3
Totals		37.4	5.1	3.3				
Part 61 Req's		20	5.0	3.0	3.0	-	3.0	

STAGE I

STAGE OBJECTIVE:

During this stage, the student becomes familiar with the training airplane and learns how the airplane controls are used to establish and maintain specific flight attitudes. The student will gain the proficiency necessary to solo the training airplane in the traffic pattern and practice area.

STAGE COMPLETION STANDARDS:

At the completion of this stage, the student will have demonstrated proficiency in the maneuvers required for solo flight. Also, the student will have successfully soloed in the local practice area.

LESSON 1 - Introduction to Training Aircraft



TYPE: Ground Lesson **DISCUSSION:** (1.2)

FLIGHT TIME: (0.0)

LESSON OBJECTIVE:

During this lesson, the instructor will introduce the student to the training aircraft and the associated preflight procedures. The student will also be introduced to the basic flight and engine controls.

CONTENT:

Lesson Introduction

- Dispatch Procedures
- Use of Checklists
- Certificates and Documents - location and Use
- Aircraft Preflight
- Fuel Grades
- Engine Controls
- Flight Controls
- Emergency Equipment

COMPLETION STANDARDS:

At the completion of this lesson, the student will have a basic knowledge of the training aircraft preflight. The student will be aware of the decision making process and its critical relevance to flight safety. The student will also be able to complete the dispatch procedures to obtain a training aircraft for a flight lesson.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Airplane Flying Handbook - Chapter 2

FAA-H-8083-25-PHAK - Pilot's Handbook of Aeronautical Knowledge - Chapter 9

Private Pilot Airman Certification Standards

LESSON 2 - Introduction / Familiarization Flight

**TYPE:** Dual Training Flight**DISCUSSION:** (0.2)**FLIGHT TIME:** (1.2)**LESSON OBJECTIVE:**

During this lesson, the student will become familiar with the engine start procedures, aircraft taxi, the before takeoff checklist, normal takeoffs, normal landings, and proper postflight securing of the aircraft. The student will also be introduced to the functioning of the basic aircraft controls.

CONTENT:**Review Items:** None**Lesson Items:**Preflight Orientation

- Dispatch Procedures
- Preflight Inspection

Flight Orientation

- | | |
|--|--|
| - Passenger Briefing | - Shallow Banked Turns |
| - Flight Deck Management | - Descents / Level Off |
| - Engine Starting | - Traffic Pattern Operations |
| - Radio Communications | - Collision Avoidance |
| - Taxiing / Brake Check | - Normal Approach & Landing |
| - Before Takeoff Check | - After Landing Checks |
| - Normal Takeoff & Climb | - Parking, Securing, & Proper Tie Down Recovery Procedures |
| - Aircraft Flight Instruments | |
| - Climb / Level Off | |
| - Straight & Level Flight / Use of Trim Pitch / Power Coordination | |

COMPLETION STANDARDS:

At the completion of this lesson, the student will be able to perform an aircraft preflight, an engine start, and be able to taxi the aircraft to the run-up area and perform the before takeoff checks. The student will perform the aircraft control functions with assistance from the instructor.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 2, 3, 5, 7, & 8

FAA-H-8083-25-PHAK - Chapters 6, 8, 9, & 14

Private Pilot Airman Certification Standards

LESSON 3 - Airports

**TYPE:** Ground Lesson**DISCUSSION:** (1.2)**FLIGHT TIME:** (0.0)**LESSON OBJECTIVE:**

During this lesson, the student will be introduced to wind direction indicators, airport operations, runway incursion avoidance, and traffic avoidance.

CONTENT:**Review Items:** None**Lesson Items:**

- Wind Direction Indicators
- Airport, Runway, and Taxiway Signs Airport, Runway, and Taxiway Markings Airport, Runway, and Taxiway Lighting Radio Calls and Checks
- CTAF
- Obtaining Airport Advisories
- Runway Incursion Avoidance
- Use of Aircraft Lighting during Taxi and Traffic Pattern Operations
- Collision Avoidance
- Scanning for Traffic
- Traffic Pattern Operations
- Practice Area Operations

COMPLETION STANDARDS:

At the completion of this lesson, the student will have a knowledge of wind indicators, airport operations, and traffic avoidance.

REFERENCES / ADDITIONAL STUDY

AC 91-73 - Parts 91 and 135 Single Pilot, Flight School Procedures During Taxi Operations

FAA-H-8083-3-AFH - Chapters 1, 2, 5, 7, & 8

FAA-H-8083-25-PHAK - Chapters 13 & 14

FAR - 14 CFR Aviation Regulations

AIM - Aeronautical Information Manual - Chapter 2

LESSON 4 - Aerodynamics

**TYPE:** Ground Lesson**DISCUSSION:** (1.2)**FLIGHT TIME:** (0.0)**LESSON OBJECTIVE:**

During this lesson, the student will be introduced to the four forces of flight, forces occurring on an aircraft not in straight and level flight, and the effects of flaps.

CONTENT:**Review Items:** None**Lesson Items:**

- 4 Forces of Flight
- Airframe Construction (Components)
- Three Axes of Flight
- Forces Acting on a Climbing Airplane
- Angle of Attack
- Forces Acting on a Descending Airplane
- Forces Acting on a Turning Airplane
- Effects of Flaps
- Critical Angle of Attack / Stalls
- Spin Awareness

COMPLETION STANDARDS:

At the completion of this lesson, the student will have a knowledge of the four forces of flight, the basic components of aircraft construction, forces acting on aircraft when not in straight and level flight, and the effect of flaps.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapter 4

FAA-H-8083-25-PHAK

LESSON 5 - Stalls and Recoveries

**TYPE:** Dual Training Flight**DISCUSSION:** (0.2)**FLIGHT TIME:** (1.2)**LESSON OBJECTIVE:**

During this lesson, the student will be introduced to flying the aircraft at various airspeeds and performing imminent stalls and recoveries.

CONTENT:**Review Items:**

- Normal Takeoff & Climb
- Normal Approach & Landing
- Flight Deck Management

Lesson Items:

- Maneuvering during Slow Flight
- Power-Off Stalls (Imminent)
- Power-On Stalls (Imminent)
- Stall Awareness
- Spin Awareness
- Use of Flaps
- Traffic Pattern Operations
- Practice Area Operations

COMPLETION STANDARDS:

The student should be able to perform slow flight, imminent stalls, and stall recoveries with the instructor's assistance.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 4, 5, 7, & 8

FAA-H-8083-25-PHAK - Chapters 5 & 6

Private Pilot Airman Certification Standards

LESSON 6 - Airplane Stability, Load Factors, Wake Turbulence

**TYPE:** Ground Lesson**DISCUSSION:** (1.2)**FLIGHT TIME:** (0.0)**LESSON OBJECTIVE:**

During this lesson, the student will be introduced to static and dynamic stability, the dihedral effect, load factors, ground effect, wing tip vortices, and wake turbulence & avoidance procedures.

CONTENT:**Review Items:** None**Lesson Items:**

- Static Stability (Positive / Negative) Dynamic Stability (Positive / Negative)
- Dihedral Effect
- Ground Effect
- Wing Tip Vortices
- Wake Turbulence & Avoidance
- Load Factor & Gusts

COMPLETION STANDARDS:

At the completion of this lesson, the student will have a knowledge of static and dynamic stability, the dihedral effect, load factors, ground effect, wing tip vortices, and wake turbulence & avoidance procedures.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapter 5

FAA-H-8083-25-PHAK - Chapters 5 & 6

AIM - Chapter 7

LESSON 7 - Climbs and Descents

**TYPE:** Dual Training Flight**DISCUSSION:** (0.2)**FLIGHT TIME:** (1.2)**LESSON OBJECTIVE:**

During this lesson, the student will be introduced to constant airspeed climbs and descents and airspeed transitions

CONTENT:**Review Items:**

- Maneuvering during Slow Flight
- Power-Off Stalls (Imminent)
- Power-On Stalls (Imminent)
- Practice Area Operations
- Flight Deck Management

Lesson Items:

- Constant Airspeed Climbs
- Constant Airspeed Descents
- Airspeed Transitions
- Climbs to Altitudes
- Descents to Altitudes
- Turns to Headings (Medium Bank)
- Flight at Low Cruise Airspeeds

COMPLETION STANDARDS:

At the completion of this lesson, the student will be able to execute straight and level flight, climbs, descents, and turns without assistance from the flight instructor. The student will hold assigned altitudes ± 150 feet, heading $\pm 20^\circ$, and airspeeds ± 15 knots. Slow flight will be performed at an airspeed at which any further increase in angle of attack, increase in load factor, or reduction in power, would result in a stall warning (e.g., aircraft buffet, stall horn, etc.) and will be maintained $+20$, -0 knots. Stalls will be performed in both straight and level and turning flight. The student will have an awareness of the need for proper aircraft trimming during airspeed transitions.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapter 4

FAA-H-8083-25-PHAK - Chapters 5, 6, & 11

Private Pilot Airman Certification Standards

LESSON 8 - Aircraft Performance

**TYPE:** Ground Lesson**DISCUSSION:** (1.2)**FLIGHT TIME:** (0.0)**LESSON OBJECTIVE:**

During this lesson, the student will be introduced to the takeoff data card, factors that affect performance, airplane weight and balance, basic performance charts, and wind calculations.

CONTENT:**Review Items:** None**Lesson Items:**

- Factors Affecting Performance
- Takeoff Data Card
- Airplane Weight and Balance
- Basic Performance Charts
- Headwind / Crosswind Calculations

COMPLETION STANDARDS:

At the completion of this lesson, the student will have a knowledge of the takeoff data card, factors that affect performance, how to calculate and interpret an airplane weight and balance, how to use basic performance charts, and how to do headwind / crosswind calculations.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 3 & 5

FAA-H-8083-25-PHAK - Chapters 5, 10, & 11

AFM/POH - Airplane Flight Manual / Pilot Operating Handbook .

LESSON 9 - Power off & Power on Stalls, Steep Turns

**TYPE:** Dual Training Flight**DISCUSSION:** (0.2)**FLIGHT TIME:** (1.2)**LESSON OBJECTIVE:**

During this lesson, the student will be introduced to power-off and power-on full stalls as well as steep turns.

CONTENT:**Review Items:**

- Constant Airspeed Climbs
- Constant Airspeed Descents
- Stall Awareness
- Spin Awareness

Lesson Items:

- Power-Off Stalls (Full) w/ & w/o Flaps
- Power-On Stalls (Full) w/o Flaps
- Steep Turns

COMPLETION STANDARDS:

The student will perform power-off and power-on full stalls and recoveries, as well as steep turns with minimal instructor assistance. The student shall maintain the assigned heading $\pm 15^\circ$ and the required airspeed ± 10 knots during the constant airspeed climbs and descents.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapter 4

FAA-H-8083-25-PHAK - Chapter 5

Private Pilot Airman Certification Standards

LESSON 10 - Weather

**TYPE:** Ground Lesson**DISCUSSION:** (1.2)**FLIGHT TIME:** (0.0)**LESSON OBJECTIVE:**

During this lesson, the student will be introduced to the atmosphere and factors influencing aviation weather.

CONTENT:**Review Items:** None**Lesson Items:**

- The Atmosphere
- Pressure
- Wind
- Moisture
- Humidity
- Stability
- Clouds
- Air Masses
- Fronts
- Frontal Weather
- Thunderstorms
- Other Hazardous Weather Conditions

COMPLETION STANDARDS:

At the completion of this lesson, the student will have a knowledge of basic atmospheric processes.

REFERENCES / ADDITIONAL STUDY

AC 00-6 (AvWx) Aviation Weather

AC 00-45 AvWxSvc Aviation Weather Services

FAA-H-8083-25-PHAK - Chapter 12

LESSON 11 - Constant rate climbs and descents

**TYPE:** Dual Training Flight**DISCUSSION:** (0.2)**FLIGHT TIME:** (1.2)**LESSON OBJECTIVE:**

During this lesson, the student will be introduced to constant rate climbs and descents.

CONTENT:**Review Items:**

- Maneuvering during Slow Flight
- Normal Takeoffs & Landings
- Steep Turns
- Power-Off Stalls (Full)
- Power-On Stalls (Full)

Lesson Items:

- Constant Rate Climbs
- Constant Rate Descents

COMPLETION STANDARDS:

The student will perform constant rate climbs and descents with minimal assistance from the instructor. Slow flight will be performed at an airspeed at which any further increase in angle of attack, increase in load factor, or reduction in power, would result in a stall warning, and will be maintained +20, -0 knots. Stalls will be performed in both straight and level and turning flight.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapter 4

FAA-H-8083-25-PHAK - Chapter 5

Private Pilot Airman Certification Standards

LESSON 12 - Weather Reports & Forecasts

**TYPE:** Ground Lesson**DISCUSSION:** (1.2)**FLIGHT TIME:** (0.0)**LESSON OBJECTIVE:**

During this lesson, the student will be introduced to aviation weather charts and reports, and how to obtain a weather briefing.

CONTENT:**Review Items:** None**Lesson Items:**

- Surface Analysis Charts
- Weather Depiction Chart / Ceiling and Visibility Analysis (CVA)
- Low-Level Prognostic Charts Graphical Forecasts for Aviation
- TAFs
- METARs
- Winds and Temperatures Aloft
- Pilot Reports
- Obtaining a Weather Briefing FSS / DUAT Standard / Abbreviated / Outlook Briefings AWOS / ASOS / AWSS Reports

COMPLETION STANDARDS:

At the completion of this lesson, the student will have a knowledge of aviation weather charts and reports, and the proper way to obtain a weather briefing.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-25-PHAK - Chapter 13

AC 00-6 (AvWx)AC 00-45 AvWxSvc

AIM - Chapter 7

LESSON 13 - Ground Reference Maneuvers

**TYPE:** Dual Training Flight**DISCUSSION:** (0.2)**FLIGHT TIME:** (1.2)**LESSON OBJECTIVE:**

During this lesson, the student will be introduced to ground reference maneuvers.

CONTENT:**Review Items:**

- Traffic Pattern Operations
- Normal Takeoffs & Landings

Lesson Items:

- Runway Incursion Avoidance
- Wind Effect on Ground Track
- Rectangular Course
- S-Turns (across a Road)
- Turns around a Point

COMPLETION STANDARDS:

The student will be able to fly specific ground tracks while maintaining airspeed ± 10 knots and altitude ± 150 feet. Airspeed will be maintained at $V_y + 15$, -10 knots during the climb after a normal takeoff. Recommended approach airspeed will be maintained $+10$, -5 knots and the touchdown will be beyond and within 750 feet of a designated point of landing.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 1, 5, 6, 7, & 8

FAA-H-8083-25-PHAK - Chapter 14

Private Pilot Airman Certification Standards

LESSON 14 - Weather reports and forecasts

**TYPE:** Ground Lesson**DISCUSSION:** (1.2)**FLIGHT TIME:** (0.0)**LESSON OBJECTIVE:**

During this lesson, the student will be introduced to radar reports, severe weather reports and forecasts, NOTAMs, AIRMETs, and SIGMETs. The student will also be introduced to proper decision making relative to obtaining and analyzing weather data.

CONTENT:**Review Items:** None**Lesson Items:**

- Radar Wx Reports
- Severe Wx Reports and Forecasts
- AIRMETs
- SIGMETs / Convective SIGMETs
- NOTAMs
- Wind Shear Reports
- Wind Shear Recognition and Avoidance
- Weather Related Aeronautical Decision Making & Judgment

COMPLETION STANDARDS:

At the completion of this lesson, the student will have a knowledge of radar weather reports, severe weather reports and forecasts, NOTAMs, AIRMETs, and SIGMETs and be able to make an appropriate decision regarding a flight based upon the relative weather data.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-25-PHAK - Chapter 13

AC 00-6 (AvWx)AC 00-45 AvWxSvc

AIM - Chapter 7

LESSON 15 - Flight Maneuvers Review

**TYPE:** Dual Training Flight**DISCUSSION:** (0.2)**FLIGHT TIME:** (1.2)**LESSON OBJECTIVE:**

During this lesson, the student will review ground reference maneuvers, maneuvering during slow flight, stalls, and steep turns.

CONTENT:**Review Items:**

- Rectangular Course
- S-Turns
- Turns around a Point
- Maneuvering during Slow
- Flight Power-On & Power-Off Stalls
- Steep Turns
- Traffic Pattern Operations
- Runway Incursion Avoidance
- Normal Takeoffs & Landings

Lesson Items: Review flight, maneuvering during slow flight, stalls, and steep turns.

COMPLETION STANDARDS:

The student will be able to fly specific ground tracks while maintaining airspeed ± 10 knots and altitude ± 150 feet. The student will be able to perform slow flight, stalls, constant altitude turns, and normal and crosswind takeoffs and landings without instructor assistance. Slow flight will be performed at an airspeed at which any further increase in angle of attack, increase in load factor, or reduction in power, would result in a stall warning, and will be maintained $+20$, -0 knots. Stalls will be performed in both straight and level and turning flight. Steep turns will be performed at 45° of bank $\pm 5^\circ$, while maintaining altitude ± 200 feet and with the roll out on the assigned heading $\pm 15^\circ$. Airspeed will be maintained at $VY +15$, -10 knots during the climb after a normal takeoff. Recommended approach airspeed will be maintained $+10$, -5 knots and the touchdown will be beyond and within 750 feet of a designated point of landing.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 6 & 7

FAA-H-8083-25-PHAK - Chapter 14

Private Pilot Airman Certification Standards

LESSON 16 - Emergency Procedures



TYPE: Ground Lesson

DISCUSSION: (1.2)

FLIGHT TIME: (0.0)

LESSON OBJECTIVE:

During this lesson, the student will be introduced to emergency procedures.

CONTENT:

Review Items: None

Lesson Items:

- Emergency Procedures (AFM/POH)

COMPLETION STANDARDS:

At the completion of this lesson, the student will have a knowledge of the emergency procedures listed in the appropriate AFM/POH..

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapter 17

AFM/POH

FAR

AIM - Chapter 6

LESSON 17 - Rejected Takeoffs & Go-Arounds

**TYPE:** Dual Training Flight**DISCUSSION:** (0.2)**FLIGHT TIME:** (1.2)**LESSON OBJECTIVE:**

During this lesson, the student will be introduced to rejected takeoffs and go-around procedures.

CONTENT:**Review Items:**

- Runway Incursion Avoidance
- Traffic Pattern Operations
- Normal Takeoff & Climb
- Normal Approach & Landing

Lesson Items:

- Wake Turbulence Avoidance
- Systems & Equipment Malfunctions
- Rejected Takeoffs
- Go-Around / Rejected Landing
- Emergency Approach & Landing

COMPLETION STANDARDS:

The student will be familiar with the procedures used during system & equipment malfunctions, wake turbulence avoidance, rejected takeoffs, go-arounds, and emergency approaches and landings. The student will be able to perform rejected takeoffs and go-arounds with the instructor's assistance. Airspeed will be maintained at VY +15, -5 knots during the climb after a normal takeoff. Recommended approach airspeed will be maintained +10, -5 knots and the touchdown will be beyond and within 750 feet of a designated point of landing.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 1, 5, 8, & 17

FAA-H-8083-25-PHAK - Chapters 2, 5, & 14

AIM - Chapter 7

LESSON 18 - Pilot resource management / ADM

**TYPE:** Ground Lesson**DISCUSSION:** (1.2)**FLIGHT TIME:** (0.0)**LESSON OBJECTIVE:**

During this lesson, the student will be introduced to single-pilot resource management, proper decision-making, FARs, NTSB 830, the use of the AIM, pilot and aircraft logbooks, and other publications.

CONTENT:**Review Items:** None**Lesson Items:**

- 14 CFR Part 1
- 14 CFR Part 61 Pvt / Student Limitations
- 14 CFR Part 67
- 14 CFR Part 91
- 14 CFR Part 141
- NTSB 830
- AIM
- Pilot Logbooks / Aircraft Logbooks
- Airman Certification Standards
- FAA Advisory Circulars
- Single-Pilot Resource Management
- Aeronautical Decision Making & Judgment Risk Management
- Task Management
- Situational Awareness
- Controlled Flight into Terrain Awareness
- Automation Management

COMPLETION STANDARDS:

At the completion of this lesson, the student will have a knowledge of single-pilot resource management, proper decision making, FARs applicable to student and private pilots in a 61 or 141 program, NTSB 830, the use of the AIM, pilot and aircraft logbooks, and other publications.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 2 & 4

FAA-H-8083-25-PHAK - Chapter 2

FAR

AIM - Introduction & Table of Contents

Private Pilot Airman Certification Standards

LESSON 19 - Crosswind takeoffs & landings and Slips

**TYPE:** Dual Training Flight**DISCUSSION:** (0.2)**FLIGHT TIME:** (1.2)**LESSON OBJECTIVE:**

The student will be introduced to slips and crosswind takeoffs and landings. The effect of wind on ground track will be reviewed.

CONTENT:**Review Items:**

- Normal Takeoffs & Landings
- Rejected Takeoff
- Go-Around / Rejected Landing
- Traffic Pattern Operations
- Wind Effect on Ground Track

Lesson Items:

- Aeronautical Decision Making & Judgment
- Crosswind Takeoff & Climb
- Side Slip
- Forward Slip
- Side Slip to a Landing
- Crosswind Approach & Landing
- Forward Slip to a Landing
- No Flap Landing

COMPLETION STANDARDS:

The student will be able to perform slips, crosswind takeoffs and landings, and correct for wind effects with minimal instructor assistance. Airspeed will be maintained at $V_y + 15$, -5 knots during the climb after a normal takeoff or go-around. Recommended approach airspeed will be maintained +10, -5 knots and the touchdown will be beyond and within 750 feet of a designated point of landing.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 5, 7, & 8

FAA-H-8083-25-PHAK - Chapter 2

Private Pilot Airman Certification Standards

LESSON 20 - Aircraft Systems



TYPE: Ground Lesson

DISCUSSION: (1.2)

FLIGHT TIME: (0.0)

LESSON OBJECTIVE:

During this lesson, the student will be introduced to fuel, electrical, environmental, and wing flaps systems.

CONTENT:

Review Items: None

Lesson Items:

- Fuel System
- Electrical System
- Environmental System
- Primary Flight Controls & Trim Systems
- Leading Edge Devices & Spoilers
- Wing Flap System

COMPLETION STANDARDS:

At the completion of this lesson, the student will have a knowledge of fuel, electrical, environmental, and wing flap systems.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-25-PHAK - Chapters 11 & 14
AFM/POH

LESSON 21 - Review Normal Take off & Landing, Slow Flight, Stalls



TYPE: Dual Training Flight

DISCUSSION: (0.2)

FLIGHT TIME: (1.2)

LESSON OBJECTIVE:

During this lesson, slow flight, stalls, and normal and crosswind takeoffs and landings will be reviewed.

CONTENT:

Review Items:

- Maneuvering during Slow Flight
- Power-Off Stalls
- Power-On Stalls
- Traffic Pattern Operations
- Normal Takeoffs & Landings
- Crosswind Takeoffs & Landings

Lesson Items:

- Review Items Above

COMPLETION STANDARDS:

The student will be able to perform slow flight, stalls, stall recoveries, and crosswind takeoffs and landings with minimal assistance from the instructor. Slow flight will be performed at an airspeed at which any further increase in angle of attack, increase in load factor, or reduction in power, would result in a stall warning, and will be maintained +15, -0 knots. Stalls will be performed in both straight and level and turning flight. Airspeed will be maintained at VY +15, -5 knots during the climb after a normal takeoff. Recommended approach airspeed will be maintained +10, -5 knots and the touchdown will be beyond and within 750 feet of a designated point of landing.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 4, 5, & 8
FAA-H-8083-25-PHAK - Chapters 5 & 14
AIM - Chapter 4

LESSON 22 - Aircraft Systems

**TYPE:** Ground Lesson**DISCUSSION:** (1.2)**FLIGHT TIME:** (0.0)**LESSON OBJECTIVE:**

During this lesson, the student will be introduced to additional aircraft systems, the aircraft equipment list, and dealing with inoperative equipment.

CONTENT:**Review Items:** None**Lesson Items:**

- Powerplant
- Oil System
- Ignition System
- Carburetor Heat / Air Induction System
- Propeller
- Hydraulic System
- Landing Gear System Aircraft Equipment List
- VFR Required Equipment
- Inoperative Equipment

COMPLETION STANDARDS:

At the completion of this lesson, the student will have a knowledge of aircraft systems, the aircraft equipment list, and dealing with inoperative equipment.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-25-PHAK - Chapters 3 & 7
AFM/POH
FAR

LESSON 23 - Flight Review Take Off and Landings (Solo Prep)

**TYPE:** Dual Training Flight**DISCUSSION:** (0.2)**FLIGHT TIME:** (1.2)**LESSON OBJECTIVE:**

During this lesson, the instructor will review takeoffs and landings in preparation for solo flight.

CONTENT:**Review Items:**

- Runway Incursion Avoidance
- Crosswind Takeoff & Climb
- Normal Takeoff & Climb
- Traffic Pattern Operations
- Engine Starting
- Radio Communications
- Taxiing
- Before Takeoff Check
- Normal Approach & Landing
- Side Slip to a Landing
- Crosswind Approach & Landing
- Forward Slip to a Landing
- No Flap Landing
- Go-Around / Rejected Landing
- After Landing Checks
- Parking, Securing, & Proper Tie Down

Lesson Items:

- Review Items Above

COMPLETION STANDARDS:

Takeoffs, landings, and go-arounds should be performed without instructor assistance. Airspeed will be maintained at VY +15, -5 knots during the climb after a normal takeoff. Recommended approach airspeed will be maintained +10, -5 knots and the touchdown will be beyond and within 750 feet of a designated point of landing.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 2, 5, 7, & 8

FAA-H-8083-25-PHAK - Chapter 14

AIM - Chapter 4

Private Pilot Airman Certification Standards

LESSON 24 - Aircraft Systems, Flight Instrument & Maintenance Requirements



TYPE: Ground Lesson

DISCUSSION: (1.2)

FLIGHT TIME: (0.0)

LESSON OBJECTIVE:

During this lesson, the student will be introduced to aircraft flight instruments and systems, and aircraft maintenance requirements.

CONTENT:

Review Items: None

Lesson Items:

- Vacuum System
- Gyroscopic Instruments
- Pitot-Static System
- Pitot-Static Instruments
- Electric Instruments
- Avionics Systems
- Deicing and Anti-icing Systems
- Magnetic Compass and Associated Errors
- Maintenance Requirements
- Service Bulletins / Airworthiness Directives

COMPLETION STANDARDS:

At the completion of this lesson, the student will have a knowledge of the aircraft flight instruments and systems, and aircraft maintenance requirements.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-25-PHAK - Chapters 7 & 8
AFM/POH

LESSON 25 - Flight Review Take Off and Landings (Solo Prep)

**TYPE:** Dual Training Flight**DISCUSSION:** (0.5)**FLIGHT TIME:** (1.2)**LESSON OBJECTIVE:**

Prior to this flight, the instructor will administer and grade a pre-solo written exam. **Prior to the flight**, the instructor will review all incorrect answers with the student. During this lesson, the student will review correct operating procedures prior to the stage check.

CONTENT:**Review Items:**

- Engine Starting
- Radio Communications
- Taxiing
- Before Takeoff Check
- Runway Incursion Avoidance
- Normal and/or Crosswind Takeoff & Climb
- Traffic Pattern Operations
- Side Slip to a Landing
- Forward Slip to a Landing
- Go-Around / Rejected Landing
- Emergency Approach & Landing
- Maneuvering during Slow Flight
- Straight and Level Flight
- Turns to Headings
- Constant Airspeed Climbs
- Constant Airspeed Descents
- Steep Turns
- Systems and Equipment Malfunctions
- Normal and/or Crosswind Approach & Landing
- Power-Off Stalls
- Power-On Stalls
- Aeronautical Decision Making & Judgment
- Practice Area Operations

COMPLETION STANDARDS:

This lesson is complete when the student satisfactorily completes a presolo written exam and the student demonstrates correct procedures for preflight duties and all other tasks to a level that allows the safe conduct of solo flight in the local area. The student shall maintain or level-off at assigned altitude ± 150 feet, maintain or roll out on headings $\pm 15^\circ$, and maintain airspeed ± 10 knots while performing climbs, descents, turns, straight and level, and traffic pattern operations unless otherwise specified. Slow flight will be performed at an airspeed at which any further increase in angle of attack, increase in load factor, or reduction in power, would result in a stall warning, and will be maintained $+15$, -0 knots. Stalls will be performed in both straight and level and turning flight. Steep turns will be performed at 45° of bank $\pm 5^\circ$, while maintaining altitude ± 150 feet and with the roll out on the assigned heading $\pm 10^\circ$. Airspeed will be maintained at $V_Y + 10$, -5 knots during the climb after takeoff. Recommended approach airspeed will be maintained $+10$, -5 knots and the touchdown will be beyond and within 500 feet of a designated point of landing.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 2, 4, 5, & 8
FAA-H-8083-25-PHAK - Chapters 2, 5, & 14
AIM - Chapter 4
Private Pilot Airman Certification Standards

LESSON 26 - Airspace

**TYPE:** Ground Lesson**DISCUSSION:** (1.2)**FLIGHT TIME:** (0.0)**LESSON OBJECTIVE:**

During this lesson, the student will be introduced to controlled and uncontrolled airspace, the classes of airspace, special use airspace, and cloud clearances.

CONTENT:**Review Items:** None**Lesson Items:**

- Uncontrolled Airspace
- Controlled Airspace
- Class A
- Class B
- Class C
- Class D
- Class E
- Class G
- Special Use Airspace
- Cloud Clearance & Visibility Requirements

COMPLETION STANDARDS:

At the completion of this lesson, the student will have a knowledge of controlled and uncontrolled airspace, the classes of airspace, special use airspace, and cloud clearances.

REFERENCES / ADDITIONAL STUDY

FAR AIM - Chapter 3

PRE-STAGE CHECK – TIME SUMMARY

This page is intended to be used to summarize the student's times accumulated through this course of instruction and determine that the times are sufficient for the stage requirements. The check instructor should verify that these times are acceptable for completion of the stage.

DATE _____

STUDENT NAME _____

STUDENT SIGNATURE _____

INSTRUCTOR # _____

INSTRUCTOR SIGNATURE _____

STAGE TOTALS

FLIGHT TIME (DUAL): _____

FLIGHT TIME (SOLO): _____

FLIGHT TIME (DUAL CROSS-COUNTRY): _____

FLIGHT TIME (SOLO CROSS-COUNTRY): _____

FLIGHT TIME (NIGHT): _____

FTD/SIM: _____

INSTRUMENT: _____ (In flight only.)

GROUND/DISCUSSION: _____ (Be sure to include the Ground Lesson times.)

LESSON 27 - Pre-Solo Stage Check



TYPE: Oral Ground Lesson | Dual Training Flight **DISCUSSION:** (1.5) **FLIGHT TIME:** (1.5)

LESSON OBJECTIVE:

This stage check will determine that the student has accomplished the objectives of Stage I.

CONTENT:

Review Items:

Oral

- Operation of Systems
- Certificates & Documents
- Aircraft Logbooks
- Use of Checklists
- Preflight Inspection
- Airplane Servicing
- Weather Information
- Performance & Limitations

Flight

- Dispatch Procedures
- Preflight Inspection
- Engine Starting
- Radio Communications
- Taxiing
- Before Takeoff Check
- Normal Takeoff & Climb
- Crosswind Takeoff & Climb
- Traffic Pattern Operations
- Collision Avoidance Precautions
- Maneuvering during Slow Flight
- Power-Off Stalls
- Power-On Stalls
- Normal Approach & Landing
- Crosswind Approach & Landing
- Emergency Approach & Landing
- Go-Around / Rejected Landing
- Systems & Equipment Malfunctions
- Practice Area Operations
- Aeronautical Decision Making & Judgment
- After Landing Checks
- Parking, Securing, & Proper Tie Down
- Recovery Procedures

COMPLETION STANDARDS:

This lesson is complete when the student can competently perform preflight duties and all other procedures necessary for the safe conduct of a solo flight in the local training area. The student shall maintain or level-off at assigned altitudes ± 150 feet, maintain or roll out on headings $\pm 15^\circ$, and maintain airspeeds ± 10 knots while performing climbs, descents, turns, straight and level, and traffic pattern operations unless otherwise specified. Slow flight will be performed at an airspeed at which any further increase in angle of attack, increase in load factor, or reduction in power, would result in a stall warning, and will be maintained $+15$, -0 knots. Stalls will be performed in both straight and level and turning flight. Airspeed will be maintained at $V_Y +10$, -5 knots during the climb after takeoff or a go-around. Recommended approach airspeed will be maintained $+10$, -5 knots and the touchdown will be beyond and within 500 feet of a designated point of landing.

LESSON 28 - Charts & Publications



TYPE: Ground Lesson

DISCUSSION: (1.2)

FLIGHT TIME: (0.0)

LESSON OBJECTIVE:

During this lesson, the student will be introduced to VFR sectional charts and the Chart Supplements.

CONTENT:

Review Items: None

Lesson Items:

- VFR Sectional Charts
- Chart Supplements
- Planning for Alternatives

COMPLETION STANDARDS:

At the completion of this lesson, the student will have a knowledge of VFR sectional charts and the Chart Supplements.

REFERENCES / ADDITIONAL STUDY

VFR Sectional

Chart Supplements

LESSON 29 - Flight Review Take Off and Landings (Solo Prep)

**TYPE:** Dual Training Flight**DISCUSSION:** (0.2)**FLIGHT TIME:** (1.2)**LESSON OBJECTIVE:**

During this lesson, the instructor will review takeoffs and landings to refine the student's level of proficiency for **solo flight**.

CONTENT:**Review Items:**

- Runway Incursion Avoidance
- Crosswind Takeoff & Climb
- Normal Takeoff & Climb
- Traffic Pattern Operations
- Normal Approach & Landing
- Crosswind Approach & Landing
- Aeronautical Decision Making & Judgment
- Go-Around / Rejected Landing
- After Landing Checks
- Parking & Securing

COMPLETION STANDARDS:

Takeoffs, landings, and go-arounds should be performed without instructor intervention and with minimal coaching. The student should demonstrate safe and effective technique during all traffic pattern operations, accomplishing all takeoffs, landings, and go-arounds to a proficiency level required for solo flight. Airspeed will be maintained at VY +10, -5 knots during the climb after takeoff or a go-around. Recommended approach airspeed will be maintained +10, -5 knots and the touchdown will be beyond and within 500 feet of a designated point of landing.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 2, 5, 7, & 8

FAA-H-8083-25-PHAK - Chapter 2 & 14

AIM - Chapter 4

Private Pilot Airman Certification Standards

LESSON 30 - Aeromedical & Human Factors

**TYPE:** Ground Lesson**DISCUSSION:** (1.2)**FLIGHT TIME:** (0.0)**LESSON OBJECTIVE:**

During this lesson, the student will be introduced to aeromedical and human factors.

CONTENT:**Review Items:** None**Lesson Items:**

- 14 CFR Part 67
- The Inner Ear
- Middle Ear and Sinus Problems Spatial Disorientation
- The Eye
- Visual Illusions / Landing Illusions
- Hypoxia
- Carbon Monoxide Poisoning
- Hyperventilation
- Alcohol and Drugs
- Stress and Fatigue
- Dehydration

COMPLETION STANDARDS:

At the completion of this lesson, the student will have a knowledge of aeromedical and human factors and how they relate to flying activities.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-25-PHAK - Chapter 17

FAR

AIM - Chapter 8

LESSON 31 - Flight Review: Take Off and Landing (Solo Prep)

**TYPE:** Dual Training Flight**DISCUSSION:** (0.2)**FLIGHT TIME:** (1.2)**LESSON OBJECTIVE:**

During this lesson, the instructor will review takeoffs and landings to refine the student's level of proficiency for **solo flight**.

CONTENT:**Review Items:**

- Taxiing
- Before Takeoff Check
- Runway Incursion Avoidance
- Normal and/or Crosswind Takeoff & Climb Traffic
- Pattern Operations
- Systems and Equipment Malfunctions
- Aeronautical Decision Making & Judgment
- Go-Around / Rejected Landing
- Normal and/or Crosswind Approach & Landing
- Emergency Approach & Landing

COMPLETION STANDARDS:

The student will demonstrate the safe completion of the tasks associated with traffic pattern operations, with the outcome never seriously in doubt. The student should accomplish this without assistance and coaching from the instructor. Airspeed will be maintained at VY +10, -5 knots during the climb after takeoff or a go-around. Recommended approach airspeed will be maintained +10, -5 knots and the touchdown will be beyond and within 500 feet of a designated point of landing.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 2, 5, 7, 8, & 17

FAA-H-8083-25-PHAK - Chapters 2 & 14

AIM - Chapters 4 & 6

Private Pilot Airman Certification Standards

LESSON 32 - Flight Review & Initial Solo



TYPE: Dual & Solo Training Flight **DUAL TIME:** (1.0) **FLIGHT TIME:** (0.6)

LESSON OBJECTIVE:

During the dual portion of the lesson, the instructor will review takeoff and landing procedures to determine that the student is proficient and competent for solo flight. During the lesson, **after being properly endorsed by the flight instructor**, the student will fly a supervised solo flight in the traffic pattern.

CONTENT:

Review Items:

- Review Student Handbook Concerning Solo Requirements
- Runway Incursion Avoidance
- Traffic Pattern Operations Normal Takeoffs and Landings

Supervised Solo:

- | | |
|------------------------------|------------------------------|
| - Radio Communications | - Traffic Pattern Operations |
| - Taxiing | - Normal Approach & Landing |
| - Before Takeoff Check | - Postflight Procedures |
| - Runway Incursion Avoidance | |
| - Normal Takeoff & Climb | |

COMPLETION STANDARDS:

This lesson and Stage I are complete when the student accomplishes a solo flight supervised by the instructor. The student will adhere to established traffic pattern procedures and demonstrate that solo flight in the traffic pattern can be accomplished safely.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 2, 5, 7, 8, & 17

FAA-H-8083-25-PHAK - Chapters 2 & 14

AIM - Chapters 4 & 6

Private Pilot Airman Certification Standards

STAGE II

STAGE OBJECTIVE:

This stage introduces the student to navigating to nearby airports by use of pilotage. The student will also be introduced to diversion, lost procedures, and planning for alternatives if the planned flight cannot be completed. The student will also be introduced to maximum performance takeoffs and landings.

STAGE COMPLETION STANDARDS:

The student will demonstrate performance to a standard that meets performance criteria for a Private Pilot Certificate (ASEL).

LESSON 33 - Principles of Navigation



TYPE: Ground Lesson

DISCUSSION: (1.2)

FLIGHT TIME: (0.0)

LESSON OBJECTIVE:

During this lesson, the student will be introduced to principles of navigation.

CONTENT:

Review Items: None

Lesson Items:

- Effect of Wind in (1) Hour
- Drift and Drift Correction
- Various Types of Aircraft Speeds
- Latitude and Longitude
- Earth's Magnetism
- Variation - Isogonic and Agonic Lines Magnetic Compass
- Magnetic Compass Errors

COMPLETION STANDARDS:

At the completion of this lesson, the student will have a knowledge of the principles of navigation.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapter 6

FAA-H-8083-25-PHAK - Chapter 16

LESSON 34 - Max Performance, Short & Soft Field Take Offs

**TYPE:** Dual Training Flight**DISCUSSION:** (0.2)**FLIGHT TIME:** (1.2)**LESSON OBJECTIVE:**

During this lesson, the student will be introduced to the maximum takeoff and landing performance of the training airplane. The student shall develop an understanding of the maximum performance capabilities of the aircraft.

CONTENT:**Review Items:**

- Passenger Briefing
- Normal and/or Crosswind Takeoff & Climb
- Normal and/or Crosswind Approach & Landing

Lesson Items:

- Single-Pilot Resource Management
- Short-Field Approach & Landing
- Short-Field Takeoff & Maximum Performance Climb
- Soft-Field Approach & Landing
- Soft-Field Takeoff & Climb

COMPLETION STANDARDS:

The student will be able to explain what runway conditions necessitate the use of short and soft-field takeoff and landing techniques. In addition, the student will be able to demonstrate the correct procedure to be used under these conditions. The maximum performance takeoffs and landings will be performed with minimal assistance from the instructor. Airspeed will be maintained at $V_y + 10$, -5 knots during the climb after a normal or crosswind takeoff. Recommended approach airspeed will be maintained +10, -5 knots and the touchdown will be beyond and within 400 feet of a designated point of landing for normal or crosswind landings.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 5 & 8

FAA-H-8083-25-PHAK - Chapter 11

Private Pilot Airman Certification Standards

LESSON 35 - Publications and Equipment / MEL

**TYPE:** Ground Lesson**DISCUSSION:** (1.2)**FLIGHT TIME:** (0.0)**LESSON OBJECTIVE:**

During this lesson, the student will be introduced to various aeronautical publications and cross-country flight planning equipment. The **minimum equipment list (MEL)** will be introduced as well.

CONTENT:**Review Items:**

- Aircraft Equipment List
- VFR Sectional Chart
- Chart Supplements

Lesson Items:

- | | |
|---------------------------|--------------------------|
| - VFR Terminal Area Chart | - Flight Deck Management |
| - Plotter | - Minimum Equipment List |
| - Flight Computer | - Supplemental Oxygen |

COMPLETION STANDARDS:

At the completion of this lesson, the student will have a knowledge of aeronautical publications, cross-country flight planning equipment, and the MEL concept..

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-25-PHAK - Chapters 2, 7, 9, 14, & 16

VFR Sectional Chart

VFR Terminal Area Chart

FAR

AIM - Chapter 9

Chart Supplements

LESSON 36 - Max Performance Review & Practice

**TYPE:** Dual Training Flight**DISCUSSION:** (0.2)**FLIGHT TIME:** (1.2)**LESSON OBJECTIVE:**

During this lesson, the student will practice maneuvers to gain proficiency and confidence in his or her ability to obtain the maximum performance from the aircraft.

CONTENT:**Review Items:**

- Passenger Briefing
- Maneuvering during Slow Flight
- Power-Off Stalls (Full)
- Power-On Stalls (Full)
- Forward Slip to a Landing
- Short-Field Takeoff & Maximum Performance Climb
- Soft-Field Takeoff & Climb
- Short-Field Approach & Landing
- Soft-Field Approach & Landing

Lesson Items:

- Review Items Above

COMPLETION STANDARDS:

The student will perform takeoffs and landings smoothly, while maintaining good directional control. Slow flight will be performed at an airspeed at which any further increase in angle of attack, increase in load factor, or reduction in power, would result in a stall warning, and will be maintained +10, -0 knots. During short and soft-field takeoffs, airspeed should be maintained at $V_X +10$, -5 knots until obstacles are cleared, and $V_Y +10$, -5 knots after that. All approaches will be stabilized and desired airspeed will be maintained +10, -5 knots for all landings. The touchdown will be beyond and within 400 feet of a designated point of landing for short-field landings.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 4, 5, & 8

FAA-H-8083-25-PHAK - Chapter 11

Private Pilot Airman Certification Standards

LESSON 37 - Cross Country Flight Planning



TYPE: Ground Lesson

DISCUSSION: (1.2)

FLIGHT TIME: (0.0)

LESSON OBJECTIVE:

During this lesson, the student will be introduced to cross-country flight planning.

CONTENT:

Review Items: None

Lesson Items:

- Applicable FARs
- Measuring True Course and Distance
- Picking Checkpoints and Altitudes Pilotage
- Airplane Flight Manual / Pilots Operating Handbook (AFM/POH)
- Performance Calculations

COMPLETION STANDARDS:

At the completion of this lesson, the student will have a knowledge of cross-country flight planning and cross-country performance calculations.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-25-PHAK - Chapters 9 & 16

FAR AIM - Chapters 1 & 9

LESSON 38 - Local Area Solo Flight

**TYPE:** Solo Training Flight**DISCUSSION:** (0.0)**FLIGHT TIME:** (1.0)**LESSON OBJECTIVE:**

During this lesson, the student will practice maneuvers to gain proficiency and confidence in his or her ability to solo an aircraft.

CONTENT:**Review Items:**

- Normal and/or Crosswind Takeoff & Climb
- Short-Field Takeoff & Maximum Performance Climb
- Soft-Field Takeoff & Climb
- Rectangular Course
- S-Turns
- Turns around a Point
- Steep Turns
- Maneuvering during Slow Flight
- Power-Off Stalls
- Power-On Stalls
- Forward Slip to Landing
- Normal and/or Crosswind Approach & Landing
- Short-Field Approach & Landing
- Soft-Field Approach & Landing
- Other (As Assigned by Instructor)

COMPLETION STANDARDS:

The lesson is complete when the student has safely conducted the assigned solo flight. During this lesson, the student should attempt to gain proficiency in the solo operation of the aircraft.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 4, 5, 6, & 8

FAA-H-8083-25-PHAK - Chapter 5

Private Pilot Airman Certification Standards

LESSON 39 - Cross Country Flight Planning

**TYPE:** Ground Lesson**DISCUSSION:** (1.2)**FLIGHT TIME:** (0.0)**LESSON OBJECTIVE:**

During this lesson, the student will be introduced to additional concepts associated with cross-country flight planning.

CONTENT:**Review Items:** None**Lesson Items:**

- The Wind Triangle
- Dead Reckoning
- Calculating Various Airspeeds
- Electronic E6B Flight Computer
- Manual E6B Flight Computer

COMPLETION STANDARDS:

At the completion of this lesson, the student will have a knowledge of additional concepts associated with cross- country flight planning.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-25-PHAK - Chapter 16

FAR

AIM - Chapter 1

LESSON 40 - Pilotage

**TYPE:** Dual Training Flight**DISCUSSION:** (0.2)**FLIGHT TIME:** (1.5)**LESSON OBJECTIVE:**

During this lesson, the student will determine the course and fly round-trip to an airport more than 25 nautical miles, but less than 50 nautical miles from the airport at which the instruction is given. The student will complete at least one landing at this airport, and at least one additional landing at an airport within 25 nautical miles of the airport where the student normally trains. In addition, the student will follow the course solely by visual reference to landmarks and using the magnetic compass. The instructor will introduce radio communications that may be encountered during pilotage flights.

CONTENT:**Review Items:**

- Passenger Briefing
- Runway Incursion Avoidance
- Single-Pilot Resource Management
- Normal Takeoff & Climb
- Traffic Pattern Operations
- Normal Approach & Landing
- Aeronautical Decision Making & Judgment
- Radio Communications at Non-Towered Airports

Lesson Items:

- VFR Navigation Charts
- Flight Publications
- Radio Communications with Flight Service
- Route Selection
- Pilotage
- Use of Magnetic Compass
- Unfamiliar Airport Operation
- Critical Weather Recognition
- Estimates of Heading & Fuel Consumption

COMPLETION STANDARDS:

The student will be able to identify selected landmarks, at all times verify position within 5 nautical miles, maintain heading $\pm 15^\circ$, and maintain altitude ± 200 feet of the selected appropriate altitude. The student will also demonstrate appropriate radio communication procedures at non-towered airports and with Flight Service.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 5, 7, & 8

FAA-H-8083-25-PHAK - Chapters 2, 14, & 16

AIM - Chapters 1, 2, 4, & 9

Private Pilot Airman Certification Standards

LESSON 41 - Cross Country Flight Planning



TYPE: Ground Lesson **DISCUSSION:** (1.2)

FLIGHT TIME: (0.0)

LESSON OBJECTIVE:

During this lesson, the student will be introduced to additional concepts associated with cross-country flight planning.

CONTENT:

Review Items: None

Lesson Items:

- Diversion Procedures
- Alternate Planning
- Lost Procedures

COMPLETION STANDARDS:

At the completion of this lesson, the student will have a knowledge of additional concepts associated with cross- country flight planning.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-25-PHAK - Chapter 16

FAR

AIM - Chapters 1, 6, & 9

LESSON 42 - Pilotage

**TYPE:** Dual Training Flight**DISCUSSION:** (0.2)**FLIGHT TIME:** (1.8)**LESSON OBJECTIVE:**

During this lesson, the student will determine the course to fly to an airport more than 25 nautical miles from the airport at which instruction is given. The student will follow the course solely by visual reference to landmarks and using the magnetic compass. The instructor will introduce emergency descents, planning for alternates, and lost procedures.

CONTENT:**Review Items:**

- Single-Pilot Resource Management
- Aeronautical Decision Making & Judgment
- Estimates of Heading & Fuel Consumption
- Critical Weather Recognition
- Unfamiliar Airport Operation
- Route Selection
- Pilotage
- VFR Navigation Charts & Publications

Lesson Items:

- Emergency Descent
- Planning for Alternatives
- Diversion to an Alternate Airport
- Lost Procedures

COMPLETION STANDARDS:

The student will be able to identify selected landmarks, at all times verify position within 3 nautical miles, maintain heading $\pm 15^\circ$, and maintain the selected appropriate altitude ± 200 feet. The student will explain the conditions and procedures for diversion to an alternate. The student will also be able to effectively communicate at non-towered airports and with Flight Service.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 5, 7, & 8

FAA-H-8083-25-PHAK - Chapters 2, 14, & 16

AIM - Chapters 1, 2, 4, & 9

Private Pilot Airman Certification Standards

LESSON 43 - Airspace and Communications

TYPE: Ground Lesson **DISCUSSION:** (1.2)

FLIGHT TIME: (0.0)

LESSON OBJECTIVE:

During this lesson, a review of airspace and communication requirements will be conducted.

CONTENT:

Review Items: None

Lesson Items:

- Class A
- Class B
- Class C
- Class D
- Class E
- Class G
- TRSA Communications
- FSS Communications
- Approach Control
- Departure Control
- Clearance Delivery
- Tower Communications
- Ground Control
- Runway and Taxiway Signs, Markings, and Lighting at Tower Controlled Fields
- Runway Incursion Avoidance at Tower Controlled Fields
- Read back / Hear back for Hold Short,
- Line Up and Wait, and Runway Crossing Instructions
- ATC Light Gun Signals

COMPLETION STANDARDS:

At the completion of this lesson, the student will be familiar with various classes of airspace and their associated communication requirements.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapter 2

FAA-H-8083-25-PHAK - Chapters 14 & 16

FAR

AIM - Chapters 1, 2, 3, 4, 5, & 9

LESSON 44 - Solo Pilotage

**TYPE:** Solo Training Flight**DISCUSSION:** (0.0)**FLIGHT TIME:** (1.5)**LESSON OBJECTIVE:**

During this lesson, the student will complete a flight to an airport located **within 25 nautical miles** of the airport where the student normally trains and return to the original departure point. The student will practice takeoffs and landings in order to increase proficiency. The instructor will properly endorse the student for this flight.

CONTENT:**Review Items:**

- | | |
|---|--|
| - Normal and/or Crosswind Takeoff & Climb | - Normal and/or Crosswind Approach & Landing |
| - Short-Field Takeoff & Maximum Performance Climb | - Short-Field Approach & Landing |
| - Soft-Field Takeoff & Climb | - Soft-Field Approach & Landing |
| | - Other (As Assigned by the Instructor) |

Lesson Items:

- Review Items Above

COMPLETION STANDARDS:

The lesson is complete when the student has conducted the assigned flight to another airport and returns. During this lesson, the student should continue to gain proficiency in each of the listed maneuvers.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 5 & 8

FAA-H-8083-25-PHAK - Chapters 11 & 14

Private Pilot Airman Certification Standards

LESSON 45 - Electronic aids to navigation

**TYPE:** Ground Lesson **DISCUSSION:** (1.2)**FLIGHT TIME:** (0.0)**LESSON OBJECTIVE:**

During this lesson, the student will be introduced to electronic aids to navigation.

CONTENT:**Review Items:** None**Lesson Items:**

- VOR Tuning and Identifying
- VOR Intercepting and Tracking
- GPS Modes of Operation
- GPS Waypoints
- GPS Direct To Operations
- GPS Flight Plan Operations
- GPS Nearest Functions
(If equipped)
- *ADF / NDB Tuning and Identifying*
- *ADF / NDB Homing*
- *ADF / NDB Intercepting and Tracking*
- *ADF / NDB Errors*

COMPLETION STANDARDS:

At the completion of this lesson, the student will have a knowledge of VOR tuning, identifying, & tracking. The student will also be aware of the basics of GPS use. If the training aircraft is equipped with an ADF, the student should have a knowledge of NDB tuning, intercepting, & tracking along with potential NDB errors.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 5, 8, & 17

FAA-H-8083-25-PHAK - Chapter 16

AIM - Chapters 1 & 6

Private Pilot Airman Certification Standards

LESSON 46 - Pilotage Review Flight

**TYPE:** Dual Training Flight**DISCUSSION:** (0.2)**FLIGHT TIME:** (1.0)**LESSON OBJECTIVE:**

During this lesson, the instructor will evaluate student proficiency with respect to maximum performance takeoffs and landings and pilotage procedures as well as en route systems and equipment problems..

CONTENT:**Review Items:**

- Short-Field Takeoff & Maximum
- Performance Climb
- Soft-Field Takeoff & Climb
- Pilotage
- Diversion
- Lost Procedure
- System & Equipment Malfunctions
- Emergency Approach & Landing
- Radio Communications
- Short-Field Approach & Landing
- Soft-Field Approach & Landing
- Emergency Descent

Lesson Items:

- Review Items Above

COMPLETION STANDARDS:

The student shall perform all maneuvers to the standards established by the current Private Pilot Airman Certification Standards.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 8 & 17 F

AA-H-8083-25-PHAK - Chapters 14 & 16

Private Pilot Airman Certification Standards

PRE-STAGE CHECK – TIME SUMMARY

This page is intended to be used to summarize the times accumulated through this course of instruction and determine that the times are sufficient for the stage requirements.

The check instructor should verify that these times are acceptable for completion of the stage.

DATE _____

STUDENT NAME _____

STUDENT SIGNATURE _____

INSTRUCTOR # _____

INSTRUCTOR SIGNATURE _____

STAGE TOTALS

FLIGHT TIME (DUAL): _____

FLIGHT TIME (SOLO): _____

FLIGHT TIME (DUAL CROSS-COUNTRY): _____

FLIGHT TIME (SOLO CROSS-COUNTRY): _____

FLIGHT TIME (NIGHT): _____

FTD/SIM: _____

INSTRUMENT: _____ (In flight only.)

GROUND/DISCUSSION: _____ (Be sure to include the Ground Lesson times.)

LESSON 47 - STAGE II Check**TYPE:** Oral Ground Lesson | Dual Training Flight**DISCUSSION:** (1.5)**FLIGHT TIME:** (1.2)**LESSON OBJECTIVE:**

The student shall demonstrate the knowledge and skill of a Private Pilot in the areas listed below.

CONTENT:**Review Items:**Oral

- Pilot Qualifications
- Airworthiness Requirements
- Weather Information
- National Airspace System
- Performance & Limitations
- Operation of Systems
- Human Factors
 - Aeromedical Factors
 - Regulations regarding use of alcohol and drugs.
 - Effects of alcohol, drugs, and over-the-counter medications.

Flight

Preflight Procedures

- Preflight Inspection Flight Deck Management Engine Starting
- Taxiing
- Before Takeoff Check

Airport Operations

- Radio Communications
- Traffic Patterns
- Airport, Runway, and Taxiway Signs, Markings, & Lighting

Takeoffs, Landings, and Go-Arounds

- Normal Takeoff & Climb
- Normal Approach & Landing
- Soft-Field Takeoff & Climb
- Soft-Field Approach & Landing
- Short-Field Takeoff & Maximum Performance Climb
- Short-Field Approach & Landing

- Forward Slip to a Landing

- Go-Around / Rejected Landing

Navigation

- Pilotage Diversion
- Lost Procedure

Emergency Operation

- Emergency Descents
- Emergency Approach & Landing (Simulated)
- Systems & Equipment Malfunctions
- Emergency Equipment & Survival Gear

Postflight Procedures

- After Landing, Parking, & Securing

COMPLETION STANDARDS:

The student will demonstrate proficiency that meets or exceeds Private Pilot proficiency as outlined in the FAA Private Pilot Airman Certification Standards.

STAGE III

STAGE OBJECTIVE:

This stage introduces additional elements of aviation that are required of a Private Pilot. The skills of navigation, cross-country operations, night operations, and flight solely by reference to the instruments shall be developed.

STAGE COMPLETION STANDARDS:

At the completion of this stage, the student will demonstrate performance to a standard that meets the criteria for a Private Pilot.

LESSON 48 - Introduction to Instrument Flying



TYPE: Ground Lesson **DISCUSSION:** (1.2)

FLIGHT TIME: (0.0)

LESSON OBJECTIVE:

During this lesson, the student will be introduced to basic attitude instrument flying and recovery from unusual flight attitudes.

CONTENT:

Review Items: None

Lesson Items:

- Basic Attitude Instrument Flight
- Instrument Scan and Crosscheck
- Unusual Flight Attitude (Nose High)
- Recovery
- Unusual Flight Attitude (Nose Low) Recovery
- Full Panel Instrument Flying
- Partial Panel Instrument Flying

COMPLETION STANDARDS:

At the completion of this lesson, the student will have a knowledge of basic attitude instrument flying and the theory behind unusual attitude recoveries.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 3 & 4

FAA-H-8083-25-PHAK - Chapters 6 & 8

AIM - Chapters 1 & 6

LESSON 49 - Cross Country Planning



TYPE: Ground Lesson **DISCUSSION:** (1.2)

FLIGHT TIME: (0.0)

LESSON OBJECTIVE:

During this lesson, the student will be introduced to an actual cross-country flight planning exercise.

CONTENT:

Review Items: None

Lesson Items:

- Cross-Country Planning Exercise

COMPLETION STANDARDS:

At the completion of this lesson, the student will be able to plan a cross-country flight and determine the suitability of proceeding with the flight based upon the conditions found during the planning process.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapter 17

FAA-H-8083-25-PHAK - Chapters 2 & 9-17

Chart Supplements

VFR Sectional

VFR Terminal Area Chart

FAR

AIM - Chapters 1-9

LESSON 50 - Cross Country Day Flight #1

**TYPE:** Dual Training Flight**DISCUSSION:** (0.2)**FLIGHT TIME:** (1.2)**LESSON OBJECTIVE:**

During this lesson, the instructor will introduce the student to basic instrument flight maneuvers, VOR navigation, and dead reckoning during a day cross-country flight.

CONTENT:**Review Items:** None**Lesson Items:**

- Basic Attitude Instrument Flight
 - Straight and Level
- Basic Attitude Instrument Flight
 - Turns in Level Flight
- Basic Attitude Instrument Flight
 - Constant Airspeed Climbs and Descents
- Basic Attitude Instrument Flight - Recovery from Unusual Flight Attitudes
- VOR Navigation
- Dead Reckoning

COMPLETION STANDARDS:

At the completion of this lesson the student will have a basic knowledge of VOR navigation, dead reckoning procedures, and basic attitude instrument flight maneuvers. The student will be able to verify position within 3 nautical miles, maintain or roll out on the selected heading $\pm 15^\circ$, and maintain or level off at the selected appropriate altitude ± 200 feet.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 3 & 4

FAA-H-8083-25-PHAK - Chapters 6 & 8

Private Pilot Airman Certification Standards

LESSON 51 - Cross Country Day Flight #2

**TYPE:** Dual Training Flight**DISCUSSION:** (0.2)**FLIGHT TIME:** (1.5)**LESSON OBJECTIVE:**

During this lesson, the student will be introduced to GPS navigation, ADF homing (if equipped), and operations at airports with control towers. The instructor will also review VOR navigation, dead reckoning, and pilotage procedures while performing a day cross-country. In addition, basic instrument maneuvers will be reviewed.

CONTENT:**Review Items:** None**Lesson Items:**

- Basic Attitude Instrument Flight
 - Straight and Level
- Basic Attitude Instrument Flight
 - Turns in Level Flight
- Basic Attitude Instrument Flight
 - Constant Airspeed Climbs and Descents
- Basic Attitude Instrument Flight - Recovery from Unusual Flight Attitudes
- VOR Navigation
- Dead Reckoning

COMPLETION STANDARDS:

At the completion of this lesson the student will have a basic knowledge of VOR navigation, dead reckoning procedures, and basic attitude instrument flight maneuvers. The student will be able to verify position within 3 nautical miles, maintain or roll out on the selected heading $\pm 15^\circ$, and maintain or level off at the selected appropriate altitude ± 200 feet.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 3 & 4

FAA-H-8083-25-PHAK - Chapters 6 & 8

Private Pilot Airman Certification Standards

LESSON 52 - Solo Cross Country Day Flight

**TYPE:** Solo Training Flight**DISCUSSION:** (0.0)**FLIGHT TIME:** (2.0)**LESSON OBJECTIVE:**

During this lesson, the student will complete a solo cross-country day flight of 150 nautical miles, consisting of **3 legs** with **full stop landings** at a minimum of **3 points**, one leg of the flight being at least **50 nautical miles**. In addition, **3 takeoffs and landings** will be completed at a **tower controlled airport**.

CONTENT:**Review Items:**

- VOR Navigation
- GPS Navigation
- Dead Reckoning
- Pilotage
- Lost Procedures
- Planning for Alternates
- ATC Communications

Lesson Items:

- Review Items Above

COMPLETION STANDARDS:

The student will perform a day cross-country that is at least 150 nautical miles, consisting of 3 legs with full stop landings at a minimum of 3 points, one leg of the flight being at least 50 nautical miles. The student will have flown to a towered field and have performed 3 takeoff and landings. Note: At least 10 solo hours, including 5 solo cross-country hours, must be completed when following this curriculum under 14 CFR part 61. Repeat this lesson as necessary to attain the applicable requirements.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-25-PHAK - Chapter 16

AIM - Chapters 1-5

Private Pilot Airman Certification Standards

LESSON 53 - Night Flying



TYPE: Ground Lesson **DISCUSSION:** (1.2)

FLIGHT TIME: (0.0)

LESSON OBJECTIVE:

During this lesson, the student will be introduced to night flying concepts.

CONTENT:

Review Items: None

Lesson Items:

- Night Flying Overview
- The Eye
- Applicable FARs
- Night Illusions
- Night Vision
- Night Scanning
- Aircraft Lighting
- Airport Lighting
- Pilot Equipment for Night Flight
- Chart Use at Night
- Night Flight Preparations
- Night Emergencies

COMPLETION STANDARDS:

At the completion of this lesson, the student will have a knowledge of basic night flying concepts.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapter 10

FAA-H-8083-25-PHAK - Chapter 17

FAR

AIM - Chapters 2, 4, & 7

LESSON 54 - Night Flight #1

**TYPE:** Dual Training Flight**DISCUSSION:** (0.2)**FLIGHT TIME:** (1.0)**LESSON OBJECTIVE:**

During this lesson, the instructor will introduce the student to night flight operations and review basic instrument flight maneuvers. The student will also perform at least 5 takeoffs and landings at night.

CONTENT:**Review Items:**

- Basic Instrument Maneuvers

Lesson Items:

- Night Flight Operations
- Night Takeoffs and Landings
- Go-Around / Rejected Landing at Night
- Night Emergency Procedures

COMPLETION STANDARDS:

At the completion of this lesson, the student will have a basic knowledge of instrument flight maneuvers and night flight operations. The student will maintain or roll out on the selected heading $\pm 15^\circ$ and maintain or level off at the selected appropriate altitude ± 200 feet.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 10 & 17

FAA-H-8083-25-PHAK - Chapter 17 FAR

AIM - Chapters 2, 4, & 7

LESSON 55 - Cross Country Night Flight

**TYPE:** Dual Training Flight**DISCUSSION:** (0.2)**FLIGHT TIME:** (2.0) (Hood 0.5)**LESSON OBJECTIVE:**

During this lesson, the student will review VOR and GPS Navigation, ADF homing (if equipped), dead reckoning, pilotage, and basic instrument maneuvers. The student will also perform at least 5 takeoffs and landings at night.

CONTENT:**Review Items:**

- Night Takeoffs & Landings
- VOR Navigation
- ADF Homing (if equipped)
- GPS Navigations

Lesson Items:

- Dead Reckoning
- Pilotage
- Basic Instrument Maneuvers Night
- Emergency Procedures

COMPLETION STANDARDS:

The student should be able to navigate using VORs and GPS, home to an NDB (if ADF equipped), and use dead reckoning on a night cross-country flight of at least 100 NM. The student shall also perform at least 5 takeoffs and landings at night. The student will be able to verify position within 3 nautical miles, maintain or roll out on the selected heading $\pm 15^\circ$, and maintain or level off at the selected appropriate altitude ± 200 feet.

At the end of this lesson, the student must have completed the required 3.0 hours of dual flight instruction and 10 takeoffs and landings at night. The student must also have logged at least 3.0 hours of dual cross-country flight training en route to airports greater than 50 nautical miles from the airport where the student normally trains.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 10 & 17

FAA-H-8083-25-PHAK - Chapters 16 & 17

AIM - Chapters 1-5 & 7

Private Pilot Airman Certification Standards

LESSON 56 - Review Flight for Private Pilot Practical Test



TYPE: Dual Training Flight

DISCUSSION: (0.2)

FLIGHT TIME: (1.5) (Hood 0.5)

LESSON OBJECTIVE:

During this lesson, the student will review flight maneuvers for the Private Pilot Practical Test.

CONTENT:

Review Items:

- Private Pilot Airman Certification Standards

COMPLETION STANDARDS:

The student will perform all maneuvers at the Private Pilot Airman Certification Standards. The student shall also be prepared for the Private Pilot Test. At the end of this lesson, the student must have completed the required 3.0 hours of flight instruction on control and maneuvering of the airplane solely by reference to instruments.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 1-10 & 17

FAA-H-8083-25-PHAK - Chapters 1-17 AIM - Chapters 1-9

Private Pilot Airman Certification Standards

LESSON 57 - Ground Knowledge Review



TYPE: Ground Lesson **DISCUSSION:** (1.2)

FLIGHT TIME: (0.0)

LESSON OBJECTIVE:

The objective of this lesson is to evaluate the students comprehension of the material presented in the ground lessons in preparation for FAA Private Pilot Knowledge Test.

CONTENT:

Review Items:

- Private Pilot Knowledge Test
- Pilot Qualifications
- Airworthiness Requirements
- Weather Information
- Cross-Country Flight Planning
- National Airspace System
- Performance & Limitations
- Operation of Systems
- Human Factors
- Night Preparation

COMPLETION STANDARDS:

In order to complete the ground portion of the Private Pilot Training Course, the student must score at least 70% on the Private Pilot Knowledge Test.

REFERENCES / ADDITIONAL STUDY

None

LESSON 58 - Review Flight for Private Pilot Practical Test



TYPE: Dual Training Flight

DISCUSSION: (0.2)

FLIGHT TIME: (1.5) (Hood 0.5)

LESSON OBJECTIVE:

During this lesson, the student will review flight maneuvers for the Private Pilot Practical Test.

CONTENT:

Review Items:

- Private Pilot Airman Certification Standards

COMPLETION STANDARDS:

The student will perform all maneuvers at the Private Pilot Airman Certification Standards. The student shall also be prepared for the Private Pilot Test. At the end of this lesson, the student must have completed the required 3.0 hours of flight instruction on control and maneuvering of the airplane solely by reference to instruments.

REFERENCES / ADDITIONAL STUDY

FAA-H-8083-3-AFH - Chapters 1-10 & 17

FAA-H-8083-25-PHAK - Chapters 1-17 AIM - Chapters 1-9

Private Pilot Airman Certification Standards

PRE-STAGE CHECK – TIME SUMMARY

This page is intended to be used by the student's flight instructor to summarize the times accumulated through this course of instruction and determine that the times are sufficient for the stage requirements. The check instructor should verify that these times are acceptable for completion of the stage.

DATE _____

STUDENT NAME _____

STUDENT SIGNATURE _____

INSTRUCTOR # _____

INSTRUCTOR SIGNATURE _____

STAGE TOTALS

FLIGHT TIME (DUAL): _____

FLIGHT TIME (SOLO): _____

FLIGHT TIME (DUAL CROSS-COUNTRY): _____

FLIGHT TIME (SOLO CROSS-COUNTRY): _____

FLIGHT TIME (NIGHT): _____

FTD/SIM: _____

INSTRUMENT: _____ (In flight only.)

GROUND/DISCUSSION: _____ (Be sure to include the Ground Lesson times.)

STAGE III Check



TYPE: Oral Ground Lesson

LESSON OBJECTIVE:

The student shall demonstrate the knowledge and skill of a Private Pilot.

CONTENT:

Review Items:

Preflight Preparations

- Pilot Qualifications
- Airworthiness Requirements
- Weather Information
- Cross-Country Flight Planning
- National Airspace System
- Performance & Limitations
- Operation of Systems
- Human Factors
- Aeromedical Factors
- Regulations regarding use of alcohol and drugs.
- Effects of alcohol, drugs, and over-the-counter medications.
- Aeronautical Decision-Making (ADM).

Airport Operations

- Communications & Light Signals
- Traffic Patterns

Preflight Procedures

- Preflight Inspection
- Flight Deck Management
- Engine Starting
- Taxiing
- Before Takeoff Check

Takeoffs, Landings & Go-Arounds

- Normal Takeoff & Climb
- Normal Approach & Landing
- Soft-Field Takeoff & Climb
- Soft-Field Approach & Landing
- Short-Field Takeoff & Maximum Performance Climb
- Short-Field Approach & Landing
- Forward Slip to a Landing
- Go-Around / Rejected Landing

Performance & Ground Reference Maneuvers

- Steep Turns
- Rectangular Course
- S-Turns
- Turns around a Point

~ Continued~

Slow Flight & Stalls

- Maneuvering during Slow Flight
- Power-Off Stalls
- Power-On Stalls
- Spin Awareness

Basic Instrument Maneuvers

- Straight & Level Flight
- Constant Airspeed Climbs
- Constant Airspeed Descents
- Turns to Headings
- Recovery from Unusual Flight Attitudes
- Radio Communications, Navigation Systems/ Facilities, & Radar Services

Navigation

Emergency Operations

- Emergency Descents
- Emergency Approach & Landing
- Systems & Equipment Malfunctions
- Emergency Equipment & Survival Gear

Night Operations

- Night Preparation

COMPLETION STANDARDS:

The stage check will be completed when the student performs all required maneuvers and tasks to the Private Pilot Airman Certification Standards. Also, the instructor and student will review the 14 CFR part 61 or part 141 requirements, as applicable, for the Private Pilot Certificate and determine that the student has met all of them. After the review of the 14 CFR part 61/141 requirements is complete, the Private Pilot flight check should be scheduled.

Record of Extra Training

DATE: _____

TYPE: _____

LESSON OBJECTIVE:

CONTENT:

Lesson Items:

- | | |
|---------|---------|
| - _____ | - _____ |
| - _____ | - _____ |
| - _____ | - _____ |
| - _____ | - _____ |
| - _____ | - _____ |

COMPLETION STANDARDS:

REFERENCES / ADDITIONAL STUDY

Record of Extra Training

DATE: _____

TYPE: _____

LESSON OBJECTIVE:

CONTENT:

Lesson Items:

- | | |
|---------|---------|
| - _____ | - _____ |
| - _____ | - _____ |
| - _____ | - _____ |
| - _____ | - _____ |
| - _____ | - _____ |

COMPLETION STANDARDS:

REFERENCES / ADDITIONAL STUDY

Record of Extra Training

DATE: _____

TYPE: _____

LESSON OBJECTIVE:

CONTENT:

Lesson Items:

- | | |
|---------|---------|
| - _____ | - _____ |
| - _____ | - _____ |
| - _____ | - _____ |
| - _____ | - _____ |
| - _____ | - _____ |

COMPLETION STANDARDS:

REFERENCES / ADDITIONAL STUDY

Record of Extra Training

DATE: _____

TYPE: _____

LESSON OBJECTIVE:

CONTENT:

Lesson Items:

- | | |
|---------|---------|
| - _____ | - _____ |
| - _____ | - _____ |
| - _____ | - _____ |
| - _____ | - _____ |
| - _____ | - _____ |

COMPLETION STANDARDS:

REFERENCES / ADDITIONAL STUDY
