Washington International Flight Academy

Private Pilot Certification Syllabus and Course Outline

Private Pilot Certification Course Airplane Single-Engine Land

INTRODUCTION
The Private Pilot Course is designed to coordinate the academic study assignments and flight training required by pilots operating in an increasingly complex aviation environment. New subject matter is introduced during the ground lessons, which include five items:

1. In-depth textbook assignments
2. Selected video presentations
3. Thorough instructor/student discussions
4. Comprehensive exercise book questions
5. Stage exams for evaluation and reinforcement

After completing the ground lesson, the student will apply these new principles in the Airplane during the flight lesson. It is required that each student purchase/provide their own copy of the Jeppesen *Private Pilot Manual* as a study textbook and of the Jeppesen Private Pilot Syllabus as reference to this Paperless141 software 141 course.

Optimum effectiveness is realized when ground lessons are completed just prior to the respective flight lessons, as outlined in the syllabus. However, it is also acceptable to present lessons in a formal ground school before the student is introduced to the Airplane. If a considerable length of time has elapsed between the ground lesson and the associated flight, the instructor may wish to conduct a short review of essential material. One rule dictated by sound educational philosophy is that the flight lesson not be conducted until the related ground lesson has been completed.

In the flight syllabus, the content portion contains areas of operation which are italicized. Listed under the areas of operation are the tasks which should be emphasized for that flight. When no tasks are listed, the instructor should assign the tasks, as appropriate, for that area of operation.

COURSE OBJECTIVE
The student will obtain the knowledge, skill, and aeronautical experience necessary to meet the requirements for a private pilot certificate with an airplane category rating.

COURSE COMPLETION STANDARD
The student must demonstrate through knowledge tests, flight tests, and show through appropriate records that (s)he meets the knowledge, skill, and experience requirements necessary to obtain a private pilot certificate with an airplane category rating.

REQUIREMENTS FOR SOLO FLIGHT
Before you can fly solo, you must hold a student pilot certificate and at least a current

third- class medical certificate. You also must be at least 16 years of age in order to obtain a student pilot certificate and be able to read, speak, write, and understand the English language. Remember that solo flight operations require specific training, successful completion of a presolo written exam, and endorsements from your flight instructor. Stage check I must be completed prior to solo flight.
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REQUIREMENTS FOR GRADUATION
You must be at least 17 years of age to graduate, be able to read, speak, write, and understand the English language, meet the same requirements listed in the time table for dual and solo flight, and satisfactorily complete the training outlined in this syllabus. When you meet the minimum requirements of FAR Part 141, Appendix B, you may be considered eligible for graduation.
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LESSON DESCRIPTION AND STAGES OF TRAINING
Each lesson is fully described within the syllabus, including the objectives, standards, and measurable units of accomplishment and learning. The stage objectives and standards are described at the beginning of each stage within the syllabus.

TESTS AND CHECKS
The syllabus incorporates stage checks and end-of-course tests in accordance with FAR 141, Appendix B. The chief instructor is responsible for ensuring that each student accomplishes the required stage checks and end-of-course tests in accordance with the schools approved training course. However, the chief instructor may delegate authority for stage checks and end-of-course tests to the assistant chief or check instructor. You also must complete stage exams, pilot briefings, and final examinations that are described within the syllabus.

FLIGHT TRAINING

FLIGHT TRAINING DUAL SOLO								
DUAL						**SOLO**		
	Local	**Day**	**Local**	**Night**	**IFR**	**Local**	**Cross**	**Dual/Solo**

	Day	Cross Country	Night	Cross Country		Day	Country	Combined Totals
Stage I	**9.0**				**(1.0)**	**0.5**		**9.5**
Stage II	**4.0**	**2.0**	**1.0**	**2.0**	**(2.0)**	**2.0**	**2.5**	**13.5**
Stage III	**6.0**						**6.0**	**12.0**
Totals	**19.0**	**2.0**	**1.0**	**2.0**	**(3.0)**	**2.5**	**8.5**	**35.0**

GROUND TRAINING						
	Maneuvers Video and Class Discussion	**PCATD**	**Manual Video and Class Discussion**	**Pilot Briefings**	**Stage Final Exams**	**Exam Debriefing**
Stage I	**3.0**	**3.0**	**10.0**		**1.0**	**As req.**
Stage II	**3.0**		**6.0**	**2.0**	**1.0**	**As req.**
Stage III	**3.0**	**2.0**	**8.0**	**2.0**	**4.0**	**1.0**
Totals	**9.0**	**5.0**	**24.0**	**4.0**	**6.0**	**1.0**

THE PRIVATE PILOT COURSE DESCRIPTION

GROUND TRAINING
In accordance with 14 CFR PART 141, ground school training is an integral part of pilot certification courses. The ground training syllabus has been designed to meet this requirement and may be conducted concurrently with flight training. This is the most effective method for course utilization, because the academic knowledge is obtained immediately prior to its application during flight training. When the course is presented as a formal classroom program, lessons should be followed in numerical order as listed in the ground training segment of the syllabus. However, to provide a degree of flexibility for adapting to individual student needs and the training environment, the

syllabus lessons may be altered with approval of the chief flight instructor. Any deviation should not disturb the course continuity or objective. Lessons may be completed out of order within the same stage but not between stages. Each lesson may be presented in one classroom session, or it may be divided into two sessions, as necessary.

USING THE GROUND LESSON

The ground lessons generally are divided into two sections: Lesson Introduction and Class Discussion. Some of the ground lessons also incorporate a video presentation which aids in the introduction of the material. During the introduction, the instructor should outline the subject material to be covered during the training session, the objective for learning that information, and the performance standards necessary for successful lesson completion. Each ground lesson also includes a Study Assignment for the next lesson.

TEXTBOOK

Prior to each ground lesson, the student should read and study the assigned textbook chapter. The *Private Pilot Manual* is comprehensive and well illustrated for easier study and understanding. It, along with other publications indicated by the Chief flight instructor, contains the information necessary to complete the academic stages of the Private Pilot Syllabus.

EXERCISE BOOK AND STAGE EXAMS

The final step of each lesson is for the students to complete the appropriate questions in the exercise book and discuss any incorrect responses with the instructor. This ensures student understanding of the subject material prior to beginning the next ground lesson. When the lesson is complete, the instructor assigns the next chapter for out-of-class reading. At the end of each ground training stage, the students are required to complete the stage exam successfully before entering the next stage.

END-OF-COURSE EXAMS

When all of the appropriate ground lesson assignments are complete, the student will take the end-of-course exam. After a thorough review of the end-of-course exam material, the actual FAA *Airplane Private Pilot Airmen Knowledge Test* should be completed without delay.

COURSE IMPLEMENTATION

The Private Airplane Syllabus are designed to fulfill the requirements of a Private Pilot Certification Course in accordance with 14 CFR PART 141, Appendix B.

PRIVATE PILOT CERTIFICATION COURSE

The *Private Pilot Airplane Syllabus* is presented first in both an overview and a lesson by lesson format. The combined flight and ground training includes the entire outline from Stage I through the completion of Stage III. The lesson sequence and content have been designed to provide the student with maximum academic and flight training prior to the introduction of new maneuvers or procedures. Therefore, the sequence shown in the syllabus outline should not be altered when the coordinated program is utilized. If absolutely necessary, the placement of ground lesson assignments in the

coordinated program may be changed to allow the student to progress more rapidly in his academic study than is outlined in the course. If this method is used, the student should not be allowed to progress into the ground lesson assignments of the next stage until he has completed the flights in the current stage of training. This is important, because the student's recall of academic knowledge decreases with an increase in time between subject introduction during ground training and its application in flight training. The private course consists of 35 hours of ground training and 35 hours of flight training.
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Syllabus Outline

LESSON #	TYPE	DESCRIPTION	GROUND	FLIGHT
		FLIGHT STAGE I – GROUND STAGE I & II		
G-1	GND	Discovering Aviation	2.0	
G-2	GND	Airplane Systems	2.0	
F-1	FLT	Ground Operations	0.5	0.5
G-3	GND	Aerodynamic Principles	2.0	
F-2	FLT	Basic Maneuvers	1.0	1.0
G-4	GND	The Flight Environment	2.0	
F-3	FLT	Flight Maneuvers	1.0	1.0
G-5	GND	Communications and Flight Info	2.0	
F-4	FLT	Flight Maneuvers & Emergency Situations	1.0	1.0
G-6	GND	Ground Lessons - **Stage Exam I**		
F-5	FLT	Ground Reference Maneuvers	1.0	1.0
G-7	GND	Meteorology for Pilots	2.0	
F-6	FLT	Airport Pattern and Operations	1.0	1.0
G-8	GND	Federal Aviation Regulations	2.0	
F-7	FLT	Proficiency – Steep Turns and Ground Reference	1.0	1.0
G-9	GND	Interpreting Weather Data	2.0	
	GND	**Pre-Solo Knowledge Exam** and Briefing	2.0	
F-8	FLT	Proficiency – Slow Flight and Airport Operations		1.0
G-10	GND	Ground Lessons – **Stage Exam II**		
F-9	FLT	**STAGE CHECK I**		1.0
F-10	FLT	First Solo – End of Stage I		1.0
		STAGE I TOTALS	24.5	9.5
		FLIGHT STAGE II – GROUND STAGE III		
G-11	GND	Airplane Performance	2.0	
F-11	FLT	Performance TO & Landings	1.0	1.0
G-12	GND	Navigation	2.0	
F-12	FLT	Second Supervised Solo	0.5	1.0
G-13	GND	Human Factors In Aviation	2.0	
F-13	FLT	Solo # 3		1.0
G-14	GND	Flying Cross Country (XC)	2.0	
F-14	FLT	Attitude Instrument Flying		1.0
G-15	GND	Ground Lessons - **Stage Exam II**		
F-15	FLT	Proficiency Flight – Attitude Instrument Flying		1.0
F-16	FLT	Night Operations		1.0
F-17	FLT	Dual Cross Country	0.5	2.0
F-18	FLT	Dual Night Cross Country	0.5	2.0
		(Continued on Next Page)		

LESSON #	TYPE	DESCRIPTION	GROUND	FLIGHT
		(Continued from Page 1)		
		Briefing – Solo XC (Cross Country)		
F-19	FLT	Solo XC (Cross Country)		2.5
G-16	GND	Ground - **Final Exam A**		
G-17	GND	Ground - **Final Exam B**		
F-20	FLT	**STAGE CHECK II**		1.0
		STAGE II TOTALS	10.5	13.5
F-21	FLT	Solo XC II (Cross Country)		2.0
F-22	FLT	Solo XC III (Long Cross Country)		4.0
F-23	FLT	Review I		2.0
F-24	FLT	Review II		2.0
F-25	FLT	**STAGE CHECK III**		1.0
		Briefing – Private Pilot Practical Test		
	ORAL	**Private Pilot Practical Test**		
F-26	FLT	**Private Pilot Practical Test Flight Check**		1.0
		STAGE III TOTALS		12.0
		Private Pilot Course Totals *	**35.0**	**35.0**

* The 35 hours ground instruction includes class work, pilot briefings and discussions of Video/CD assignments conducted in association with the school materials. In the future, the use of a PCATD may be available and up to 5 hours substituted for Video/CD discussions.

A detailed list of Student Course Flights, Classes and Assignments may be found on the FSMS (Flight School Management System) available through the WIFA internet web site.

Private Pilot

Airplane

Single Engine Land

Course

Private Pilot Certification Course Airplane Single-Engine Land

Ground Training Portion: 35 Hours

GROUND TRAINING OBJECTIVES.
The student will obtain the knowledge, skill, and aeronautical knowledge necessary to meet the requirements for a private pilot certificate with an airplane category rating and a single-engine land class rating.

GROUND TRAINING COMPLETION STANDARDS.
The student must compete the 35 hours of ground training and demonstrate through knowledge tests and show through appropriate records that he / she has the necessary knowledge to pass the FAA Private Pilot Knowledge Test.

STAGE I

STAGE OBJECTIVES
During this stage, the student will be introduced to pilot training, aviation opportunities, human factors in aviation, and become familiar with airplane systems and aerodynamic principles, as well as the flight environment. The student also will obtain a basic knowledge of safety of flight, airports, aeronautical charts, airspace, radio communications, and air traffic control services, including the use of radar. In addition, the student will learn radio procedures and the common sources of flight information.

STAGE COMPLETION STANDARDS
This stage is complete when the student has completed the Stage I written exam with a minimum passing score of 80%, and the instructor has reviewed each incorrect response to ensure complete understanding before the student progresses to Stage II.

STAGE II

STAGE OBJECTIVES
During this stage, the student will become familiar with weather theory, typical weather patterns, and aviation weather hazards. In addition to meteorological theory, the student will learn how to obtain and interpret various weather reports, forecasts, and graphic charts. Finally, the student will become familiar with FARs as the apply to private pilot operations.

STAGE COMPLETION STANDARDS
This stage is complete when the student has completed the Stage II written exam with a minimum passing score of 80%, and the instructor has reviewed each incorrect response to ensure complete understanding before the student progresses to Stage III.
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STAGE III

STAGE III OBJECTIVES
During this stage, the student will learn how to predict performance and control the weight and balance condition of the airplane. In addition, the student will be introduced to pilotage, dead reckoning, and navigation equipment. This includes understanding the basic concepts of how to use aeronautical charts, plotters, flight computers, and flight publications to plan cross-country flight. The student also will learn how to use VOR, ADF, and advanced navigation systems. In addition, the student will obtain an understanding of the physiological factors which can affect both pilot and passengers during flight. Finally, the student will learn how to conduct comprehensive preflight planning for cross-country flights and gain insight into factors affecting aeronautical decision making.

STAGE COMPLETION STANDARDS
This stage is complete when the student has completed the Stage III written exam with a minimum passing score of 80%, and the instructor has reviewed each incorrect response to ensure complete understanding.
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Private Pilot Certification Course Airplane Single-Engine Land
Flight Training Portion: 35 Hours
FLIGHT TRAINING OBJECTIVES.
The student will obtain the necessary aeronautical skill and experience necessary to meet the requirements for a private pilot certificate with an airplane category rating and a single-engine land class rating.

FLIGHT TRAINING COMPLETION REQUIREMENTS.
The student must demonstrate through flight tests and school records that the necessary aeronautical skill and experience requirements to obtain a private pilot certificate with an airplane category rating and single-engine land class rating have been met.

STAGE I

STAGE OBJECTIVES
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 and ground tracks. The student will also gain the proficiency to solo the training airplane in the traffic pattern.

STAGE COMPLETION STANDARDS
At the completion of this stage, the student will demonstrate proficiency in basic flight maneuvers, and will successfully soloed in the traffic pattern. In addition, the student will have the proficiency required for introduction of maximum performance takeoff and landing procedures in Stage II.

STAGE II

STAGE OBJECTIVES
This stage allows the student to expand the skills learned in the previous stage. The student is introduced to short-field and soft-field takeoff and landing procedures, as well as night flying, which are important steps in preparation for cross-country training. Additionally, greater emphasis is placed on attitude control by instrument reference to increase the student's overall competence. In the cross-country phase, the student will learn to plan and conduct cross-country flights using pilotage, dead reckoning, and radio navigation systems, and how to safely conduct flights in the National Airspace System.

STAGE COMPLETION STANDARDS
This stage is complete when the student can accurately plan and conduct cross-country flights. In addition, the student will have the proficiency to safely demonstrate consistent results in performing short-field and soft-field takeoffs and landings and night operations. The proficiency level must be such that the successful and safe outcome of each task is never seriously in doubt.
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STAGE III

STAGE OBJECTIVES
During this stage, the student will gain additional proficiency in solo cross-country operations and will receive instruction in preparation for the End-of-Course Flight Check.

STAGE COMPLETION STANDARDS

This stage is complete when the student demonstrates performance of private pilot operations at a standard that meets or exceeds the minimum performance criteria established in the practical test standards for a private pilot certificate.

Training Course Outline – Training Syllabus

Private Pilot Certification Course Airplane Single-Engine Land

Ground Training: 35 Hours

1. GROUND TRAINING COURSE OBJECTIVES.

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

2. GROUND TRAINING COURSE COMPLETION STANDARDS.

The student must demonstrate through knowledge tests, flight tests, and show through appropriate records that he / she meets the knowledge, skill, and experience requirements necessary to obtain a private pilot certificate with an airplane category rating and a single-engine land class rating.

Stage I

1. STAGE OBJECTIVES.

During this stage, the student will be introduced to pilot training, aviation opportunities, human factors in aviation, and become familiar with airplane systems and aerodynamic principles, as well as the flight environment. The student also will obtain a basic knowledge of safety of flight, airports, aeronautical charts, airspace, radio communications, and air traffic control services, including the use of radar. In addition, the student will learn radio procedures and the common sources of flight information.

2. STAGE COMPLETION STANDARDS.

This stage is complete when the student has completed the Stage I written exam with a minimum passing score of 80%, and the instructor has reviewed each incorrect response to ensure complete understanding before the student progresses to Stage II.

GROUND LESSON 1

DISCOVERING AVIATION

A. Objective. Become familiar with pilot training, aviation opportunities, and human factors in aviation. Gain a basic understanding of the school's pilot training program.

Private Pilot Manual - Chapter 1 Discovering Aviation

Content:

(1) Pilot Training

a) How to get started

b) Role of the FAA

c) Fixed-Base Operators (FBOs)

d) Eligibility Requirements

e) Types of Training Available

f) Phases of Training

g) Private Pilot Privileges and Limitations

(2) Aviation Opportunities

a) New Experiences

b) Aviation Organizations

c) Category/Class Ratings

d) Additional Pilot Certificates

e) Aviation Careers

(3) Introduction to human factors

a) Aeronautical Decision Making

b) Crew Resource Management Training

c) Pilot-in-Command Responsibility

d) Communication

e) Resource Use

f) Workload Management

g) Situational Awareness

h) Aviation Physiology

i) Alcohol, Drugs, and Performance

j) Fitness for Flight

B. Completion Standards. The student will indicate, through oral quizzing, familiarity with pilot training programs, opportunities in aviation, and human factors. In addition, the instructor will make sure the student has a basic understanding of policies and procedures applicable to the school's pilot training program.

GROUND LESSON 2

AIRPLANE SYSTEMS

A. Objective. Gain a basic understanding of the main airplane components and systems. Become familiar with flight instrument functions and operating characteristics, including errors and common malfunctions. Learn about the powerplant and related systems.

Private Pilot Manual - Chapter 2 Airplane Systems

Content:

(1) AIRPLANES

a) Fuselage

b) Wings

c) Empennage

d) Landing Gear

e) Engine/Propeller

f) Pilot's Operating Handbook (POH)

(2) THE POWER PLANT AND RELATED SYSTEMS

a) Reciprocating Engine

b) Induction Systems

c) Supercharging and Turbo charging

d) Ignition Systems

e) Fuel Systems

f) Refueling

g) Oil Systems

h) Cooling Systems

i) Exhaust Systems

j) Propellers

k) Propeller Hazards

I) Electrical Systems

(3) FLIGHT INSTRUMENTS

a) Pitot-Static Instruments

b) Airspeed Indicator

c) Altimeter

d) Vertical Speed Indicator

e) Gyroscopic Instruments

f) Magnetic Compass

B. Completion Standards. Demonstrate understanding during oral quizzing by instructor at completion of lesson. Student completes Chapter 2 questions for Sections A, B, and C with a

minimum passing score of 80%. Instructor reviews incorrect responses to ensure student understanding prior to progression to Ground Lesson 3.

GROUND LESSON 3

AERODYNAMIC PRINCIPLES

A. Objective. Become familiar with the four forces of flight, aerodynamic principles of stability, maneuvering flight, and load factor. Gain a basic understanding of stall/spin characteristics as they relate to training airplanes. Learn the importance of prompt recognition of stall indications

Private Pilot Manual - Chapter 3 Aerodynamic Principles

Content:

(1) FOUR FORCES OF FLIGHT

a) Lift

b) Airfoils

c) Pilot Control of Lift

d) Weight

e) Thrust

f) Drag

g) Ground Effect

(2) STABILITY

a) Three Axes of Flight

b) Longitudinal Stability

c) Center of Gravity Position

d) Lateral Stability

e) Directional Stability

f) Stalls

g) Spins

(3) AERODYNAMICS OF MANEUVERING FLIGHT

a) Climbing Flight

b) Left-Turning Tendencies

c) Descending Flight

d) Turning Flight

e) Load Factor

B. Completion Standards. Demonstrate understanding during oral quizzing by instructor at completion of lesson. Student completes Chapter 3 questions for Sections A, B, and C with a minimum passing score of 80%. Instructor reviews incorrect responses to ensure complete student understanding prior to progression to Ground Lesson 4

GROUND LESSON 4

THE FLIGHT ENVIRONMENT

A. Objective. Understand important safety considerations, including collision avoidance cautions, flight-of-way rules, and minimum safe altitudes. Become familiar with airport marking

and lighting, aeronautical charts, and types of airspace. Learn about collision avoidance procedures and runway incursion avoidance.

Private Pilot Manual - Chapter 4 The Flight Environment

CONTENT:

(1) SAFETY OF FLIGHT

a) Collision Avoidance/Visual Scanning

b) Airport Operations

c) Right-of-Way Rules

d) Minimum Safe Altitudes

e) Taxiing in Wind

f) Positive Exchange of Flight Controls

(2) AIRPORTS

a) Controlled and Uncontrolled

b) Runway Layout

c) Traffic Pattern

d) Airport Visual Aids

e) Taxiway Markings

f) Ramp Area Hand Signals

g) Runway Incursion Avoidance

h) Land and Hold Short Operations (LAHSO)

i) Airport Lighting

j) Visual Glideslope Indicators

k) Approach Light Systems

I) Pilot-Controlled Lighting

(3) AERONAUTICAL CHARTS

a) Latitude and Longitude

b) Projections

c) Sectional Charts

d) World Aeronautical Charts

e) Chart Symbology

(4) AIRSPACE

a) Classifications

b) Uncontrolled Airspace

c) Controlled Airspace

d) Class A

e) Class B

f) Class C

g) Class D

h) Class E

i) Class G

j) Special VFR

k) Special Use Airspace

I) Other Airspace Areas

m) Emergency Air Traffic Rules

n) Air Defense Identification Zones

B. Completion Standards. Demonstrate understanding during oral quizzing by instructor at completion of lesson. Student completes Chapter 4 questions for Sections A,B, C, and D with a minimum passing score of 80%. Instructor reviews incorrect responses to ensure complete student understanding prior to progression to ground Lesson 5.

GROUND LESSON 5

COMMUNICATION AND FLIGHT INFORMATION

A. Objective. Become familiar with radar, transponder operations, and FAA radar equipment and services for VFR aircraft. Understand the types of service provided by an F5S. Learn how to use

the radio for communication. Gain a basic understanding of the sources of flight information, particularly the Aeronautical Information Manual and FAA advisory circulars.

Private Pilot Manual - Chapter 5 Communication and Flight Information

Content:

(1) RADAR AND ATC SERVICES

a) Radar

b) Transponder Operation

c) FAA Radar Systems

d) VFR Radar Services

e) Automatic Terminal Information Service (ATIS)

f) Flight Service Stations

g) VHF Direction Finder Assistance

(2) RADIO PROCEDURES

a) VHF Communication Equipment

b) Using the Radio

c) Phonetic Alphabet

d) Coordinated Universal Time

e) Common Traffic Advisory Frequency (CTAF)

f) ATC Facilities and Controlled Airports

g) Lost Communication Procedures

h) Emergency Procedures

i) Emergency Locator Transmitters (ELTs)

(3) SOURCES OF FLIGHT INFORMATION

a) Airport/Facility Directory

b) Federal Aviation Regulations

c) Aeronautical information Manual (AIM)

d) Notices to Airmen (NOTAMs)

e) Advisory Circulars

B. Completion Standards. Demonstrate understanding during oral quizzing by instructor at completion of lesson. Student completes Chapter 6 question for Sections A, B, C with a minimum passing score of 80%. Instructor reviews incorrect responses to ensure complete understanding prior to Ground Lesson 8.

GROUND LESSON 6

STAGE I EXAM

A. Objectives. Demonstrate comprehension of the material presented in Chapters 1 through 5 of the Private Pilot Manual.

Private Pilot Manual - Chapters 1 through 5

CONTENT:

(1) STAGE I EXAM

a) Airplane Systems

b) Aerodynamic Principles

c) The Flight Environment

d) Communication and Flight Information

B. Completion Standards. This lesson and stage are complete when the student has completed the Stage 1 Exam with minimum of 80%, and the instructor has reviewed each incorrect response to ensure complete understanding before the student progresses to Stage II.

GROUND LESSON 7

METEOROLOGY

A. Objectives. Learn the causes of various weather conditions, frontal systems, and hazardous weather phenomena. Understand how to recognize critical weather situations from the ground and during flight, including hazards associated with thunderstorms. Become familiar with the recognition and avoidance of wind shear and wake turbulence.

Private Pilot Manual - Chapter 6, Meteorology for Pilots

Content:

(1) BASIC WEATHER THEORY

a) The Atmosphere

b) Atmospheric Circulation

c) Atmospheric Pressure

d) Coriolis Force

e) Global Wind Patterns

f) Local Wind Patterns

(2) WEATHER PATTERNS

a) Atmospheric Stability

b) Temperature Inversions

c) Moisture

d) Humidity

e) Dewpoint

f) Clouds and Fog

g) Precipitation

h) Airmasses

i) Fronts

(3) WEATHER HAZARDS

a) Thunderstorms

b) Turbulence

c) Wake Turbulence

d) Wind Shear

e) Microburst

f) Icing

g) Restrictions to Visibility

h) Volcanic Ash

B. Completion Standards. Demonstrate understanding during oral quizzing by instructor at completion of lesson. Student completes Chapter 6 question for Sections A, B, C with a minimum passing score of 80%. Instructor reviews incorrect responses to ensure complete understanding prior to Ground Lesson 8.

GROUND LESSON 8

PRIVATE PILOT FARS

A. Objectives. Understand the appropriate Federal Aviation Regulations in the Private Pilot Recommended Study List. Gain specific knowledge of those FARs which govern student solo flight operations, private pilot privileges, limitations, and National Transportation Safety Board (NTSB) accident reporting requirements.

FAR/AIM - Private Pilot FARs

Content:

(1) FAR Part 1

(2) FAR Part 61

(3) FAR Part 91

(4) NTSB 830

B. Completion Standards. Demonstrate understanding during oral quizzing by instructor at completion of lesson. Student completes Ground Lesson 8 Private Pilot FAR Exercises with a minimum passing score of 80%. Instructor reviews incorrect responses to ensure understanding prior to progressing to Ground Lesson 9.

GROUND LESSON 9

INTERPRETING WEATHER DATA

A. Objectives. Learn how to obtain and interpret weather reports, formats, and graphic charts. Become familiar with the sources of weather information during preflight planning and while in flight. Recognize critical weather situations described by weather reports and forecasts.

Private Pilot Manual - Chapter 7, Interpreting Weather Data

Content:

(1) THE FORECASTING PROCESS

a) Forecasting Methods

b) Types of Forecasts

c) Compiling and Processing Weather Data

d) Forecasting Accuracy and Limitations

(2) PRINTED REPORTS AND FORECASTS

a) Aviation Routine Weather Report (METAR)

b) Radar Weather Reports

c) Pilot Weather Reports

d) Terminal Aerodrome Forecast (TAF)

e) Aviation Area Forecast

f) Winds and Temperatures Aloft Forecast

g) Severe Weather Reports and Forecasts

h) AIRNET/SIGNET/Convective SIGNET

(3) GRAPHIC WEATHER PRODUCTS

a) Surface Analysis Chart

b) Weather Depiction Chart Radar Summary Chart

c) Satellite Weather Pictures

d) Low-Level Significant Weather Prog

e) Severe Weather Outlook Chart

f) Forecast Winds and Temperatures Aloft Chart

g) Volcanic Ash Forecast and Dispersion Chart

(4) SOURCES OF WEATHER INFORMATION

a) Preflight Weather Sources

b) In-Flight Weather Sources

c) Enroute Flight Advisory Service

d) Weather Radar Services

e) Automated Weather Reporting Systems

B. Completion Standards: Demonstrate understanding during oral quizzing by instructor at the completion of lesson. Student completes Chapter 7 questions for Section A, B, C and D with

a minimum passing score of 80%. Instructor reviews incorrect responses to ensure complete student understanding prior to progressing to the Stage II Exam.

GROUND LESSON 10

STAGE II EXAM

A. Objectives. Demonstrate comprehension of the material presented in Chapters 6 and 7 of the Private Pilot Manual and the FARs that apply to private pilot operations, including private pilot privileges, limitations, and NTSB accident reporting requirements.

Private Pilot Manual - Chapters 6 and 7 FAR/AIM ¦ Private Pilot FARs

Content:

(1) STAGE II EXAM

a) Meteorology for Pilots

b) Federal Aviation Regulations

c) Interpreting Weather Data

B. Completion Standards: This lesson and stage are complete when the student has completed the State II Exam with a minimum passing score of 80%, and the instructor has reviewed each incorrect response to ensure complete understanding before the student progresses to Stage III.

GROUND LESSON 11

AIRPLANE PERFORMANCE

A. Objectives. Learn how to use data supplied by the manufacturer to predict airplane performance, including takeoff and landing distances and fuel requirements. Learn to compute and control the weight and balance condition of a typical training airplane. Become familiar with basic functions of aviation computers. Understand the effects of density altitude on takeoff and climb performance.

Private Pilot Manual - Chapter 8, Airplane Performance

Content:

(1) PREDICTING PERFORMANCE

a) Aircraft Performance and Design

b) Chart Presentations

c) Factors Affecting Performance

d) Takeoff and Landing Performance

e) Climb Performance

f) Cruise Performance

g) Using Performance Charts

(2) WEIGHT AND BALANCE

a) Importance of Weight

b) Importance of Balance

c) Terminology

d) Principles of Weight and Balance

e) Computation Method

f) Table Method

g) Graph Method

h) Weight-Shift Formula

i) Effects of Operating at High Total Weights

j) Flight at Various CG Positions

(3) FLIGHT COMPUTERS

a) Mechanical Flight Computers

b) Time, Speed, and Distance

c) Airspeed and Density Altitude Computations

d) Wind Problems

e) Conversions

f) Multi-Part Problems

g) Electronic Flight Computers

h) Modes and Basic Operations

B. Completion Standards: Demonstrate understanding during oral quizzing by instructor at completion of each lesson. Student completes Chapter 8 questions for Section A, B and C with a minimum passing score of 80%. Instructor reviews incorrect answers to ensure complete understanding prior to progressing to Lesson 12.

GROUND LESSON 12

NAVIGATION

A. Objectives. Learn the basic concepts for VFR navigation using pilotage, dead reckoning, and aircraft navigation systems. Become familiar with guidelines and recommended procedures related to flight planning, use of an FAA Right Plan, VFR cruising altitudes, and lost procedures. Gain a basic understanding of VFR navigation using pilotage, dead reckoning, and navigation systems.

Private Pilot Manual - Chapter 9, Navigation

Content:

(1) PILOTAGE AND DEAD RECKONING
a) Pilotage
b) Dead Reckoning
c) Right Planning
d) VFR Cruising Altitudes
e) Right Plan
f) Lost Procedures
(2) VOR NAVIGATION
a) VOR Operations
b) Ground and Airborne Equipment
c) Basic Procedures
d) VOR Orientation and Navigation
e) VOR Checkpoints and Test Signals
f) VOR Precautions
g) Horizontal Situation Indicator
h) Distance Measuring Equipment (DME)
(3) ADF NAVIGATION
a) ADF Equipment
b) Orientation
c) Homing
d) ADF Intercepts and Tracking
e) Movable-Card Indicators
f) Radio Magnetic Indicator
g) ADF Precautions
(4) ADVANCED NAVIGATION
a) VORTAC-Based Area Navigation
b) Inertial Navigation System
c) Global Positioning System

B. Completion Standards. Demonstrate understanding during oral quizzing by instructor at completion of lesson. Student completes Chapter 9 questions for Sections A, B, C and D with a minimum passing score 80%. Instructor reviews incorrect responses to ensure complete student understanding prior to progressing to Ground Lesson 13.

GROUND LESSON 13

APPLYING HUMAN FACTORS PRINCIPLES

A. Objectives. Gain an insight into important aviation physiological factors as they relate to private pilot operations. Become familiar with the accepted procedures and concepts pertaining to aeronautical decision making and judgment, including cockpit resource management and human factors training. Gain a basic understanding of aeronautical decision making and judgment.

Private Pilot Manual - Chapter 10, Applying Human Factors Principles

Content:

(1) AVIATION PHYSIOLOGY

a) Vision in Flight

b) Night Vision

c) Visual Illusions

d) Disorientation

e) Respiration

f) Hypoxia

g) Hyperventilation

(2) AERONAUTICAL DECISION MAKING

a) Applying the Decision Making Process

b) Pilot-in-Command Responsibility

c) Communication

d) Workload Management

e) Situational Awareness

f) Resource Use

g) Applying Human Factors Training

B. Completion Standards. Demonstrate understanding during oral quizzing by instructor at completion of lesson. Student completes for Sections A, and B with a minimum passing score of 80%. Instructor reviews incorrect responses to ensure complete student understanding prior to progressing to Ground Lesson 14.

GROUND LESSON 14

FLYING CROSS COUNTRY

A. Objectives. Develop a sound understanding of the planning process for a cross-country flight. Become familiar with the details of flying a typical cross-country flight, including evaluation of in-flight weather and decisions for alternative actions, such as a diversion. Understand how to plan for alternatives.

Private Pilot Manual - Chapter 11, Flying Cross-Country

Content:

(1) THE FLIGHT PLANNING PROCESS

a) Developing the Route

b) Preflight Weather Briefing

c) Completing the Navigation Log

d) Flight Plan

e) Preflight Inspection

(2) THE FLIGHT

a) Departure KGAI to KLNS

b) KLNS to KCXY

c) KCXY to KFDK

d) Diversion to KDMW

e) Return to KGAI

B. Completion Standards. Demonstrate understanding during oral quizzing by instructor at completion of lesson. Student completes Chapter 11 questions for Section A and B with a minimum passing score of 80%. Instructor reviews incorrect responses to ensure complete student understanding prior to progressing to Stage III

GROUND LESSON 15

STAGE III EXAM

A. Objectives. Demonstrate comprehension of the material presented in Chapters 8 through 11 of the Private Pilot Manual.

Private Pilot Manual - Chapters 8-11

Content:

(1) Stage III Exam

a) Airplane Performance

b) Navigation

c) Human Factors Principles

d) Aeronautical Decision Making

e) Flying Cross-Country

B. Completions Standards. This lesson and stage are complete when the student has completed the Stage III Exam with a minimum passing score of 80% and the instructor has reviewed each incorrect response to ensure complete understanding before the student progresses to the course final examinations.

GROUND LESSON 16

FINAL EXAM "A"

A. Objectives. Demonstrate comprehension of the material presented in this course in preparation for the FAA Private Pilot Airmen Knowledge Test.

Content:

(1) Private Pilot Final Exam "A"

B. Completion Standards. Each student must complete the Private Pilot Final exam "A" with a minimum passing score of 80%, and the instructor should review each incorrect response to ensure complete understanding before the student progresses to the Private Pilot Final Exam "B."

GROUND LESSON 17

FINAL EXAM "B"

A. Objectives. Demonstrate comprehension of the academic material presented in this course and the student's readiness to complete the FAA Private Pilot Airmen Knowledge Test.

(1) Private Pilot Final Exam "B"

B. Completion Standards. Each student must complete Private Pilot Final Exam"B" with a minimum score of 80%, and the instructor should review each incorrect response to ensure complete understanding.

PRIVATE PILOT CERTIFICATION COURSE AIRPLANE SINGLE-ENGINE LAND

Flight Training

1. ENROLLMENT PREREQUISITES.

Students enrolling in this flight course must possess a valid student pilot certificate and hold at least a current third-class medical certificate.

2. FLIGHT TRAINING COURSE OBJECTIVES.

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

3. FLIGHT TRAINING COMPLETION REQUIREMENTS.

The student must demonstrate through flight tests and school records that the necessary aeronautical skill and experience requirements to obtain a private pilot certificate with an airplane category rating and single-engine land class rating have been met.

Stage I

1. STAGE ONE OBJECTIVES.

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 and ground tracks. The student also will gain the proficiency to solo the training airplane in the traffic pattern.

2. STAGE ONE COMPLETION STANDARDS.

At the completion of this stage, the student will demonstrate proficiency in basic flight maneuvers, and will have successfully soloed in the traffic pattern. In addition, the student will have the proficiency required for introduction of maximum performance takeoff and landing procedures in Stage II.

FLIGHT LESSON 1

GROUND OPERATIONS

A. Lesson Objectives. Become familiar with the training airplane and its systems. Learn about certificates, documents, and checklists. Understand how to conduct the necessary preflight activities. Learn about the functions of the flight controls, and how they are used to maintain specific attitudes. Gain an understanding of preflight preparation and procedures.

Content.

(1) PREFLIGHT DISCUSSION:

a) Fitness for flight

b) Positive Exchange of Flight Controls

c) Certificates and documents

d) Airworthiness Requirements

e) Airplane logbooks

f) Airplane servicing

g) Fuel grades

(2) INTRODUCE:

a) Use of Checklists

b) Preflight Inspection

c) Certificates and Documents

d) Airplane Servicing

e) Operation of Systems

f) Equipment Checks

g) Location of First Aid Kit

h) Location of Fire Extinguisher

i) Engine Starting

j) Radio Communications

k) Taxiing

I) Before Takeoff Check

m) Normal Takeoff and Climb

n) Straight-and-Level Flight

o) Climbs, Descents, and Level Offs

p) Medium Banked Turns in Both Directions

q) Normal Approach and Landing

r) After Landing, Parking, and Securing

B. Completion Standards. Display basic knowledge of aircraft systems and the necessity of checking their operation before flight. Become familiar with the control systems and how they are used to maneuver the airplane on the ground and in the air.

FLIGHT LESSON 2

BASIC MANEUVERS

A. Objectives. Review procedures and maneuvers introduced in Flight Lesson 1, especially preflight activities, ground operations, and attitude control during basic maneuvers using visual reference (VR). Introduce additional procedures and maneuvers. Emphasis will be on correct procedures for preflight and ground operations.

Content:

(1) PREFLIGHT DISCUSSION:

a) Human factors concepts

b) Preflight activities

c) Minimum equipment list concept

d) Engine starting

e) Airport and runway markings and lighting

f) Ground operations, including crosswind taxiing

g) Collision avoidance precautions

h) Airspeed and configuration changes

(2) INTRODUCE:

a) Minimum Equipment List

b) Airport and Runway Markings and Lighting

c) Crosswind Taxi

d) Airspeed and Configuration Changes

e) Flight at Approach Airspeed

f) Traffic Patterns

g) Descents in High and Low Drag Configurations

(3) REVIEW:

a) Preflight Inspection

b) Certificates and Documents

c) Airworthiness Requirements

d) Operation of Systems

e) Positive Exchange of Flight Controls

f) Use of Checklists

g) Engine Starting

h) Radio Communications

i) Taxiing

j) Before Takeoff Check

k) Normal Takeoff and Climb

I) Straight-and-Level Flight (VR)

m) Climbs (VR)

n) Descents (VR)

o) Medium Banked Turns in Both Directions (VR)

p) Normal Approach and Landing

q) After Landing, Parking, and Securing

r) Airplane Servicing

B. Completion Standards. Display increased proficiency in preflight activities, ground operations, and coordinated airplane attitude control. Perform takeoffs with instructor assistance. Be familiar with control usage necessary to maintain altitude within +/- 250 feet during airspeed and configuration changes. Exhibit understanding of altitude control by visual references (VR).

FLIGHT LESSON 3

FLIGHT MANEUVERS

A. Objectives. Review airspeed control during basic maneuvers and traffic pattern operations. Introduce stalls from various flight attitudes to increase understanding of airplane control during normal and critical flight conditions. Introduce attitude control by instrument reference (IR). Emphasis will be directed to proper execution of the listed basic maneuvers and procedures, particularly takeoffs, traffic patterns, and landings.

Content:

(1) PREFLIGHT DISCUSSION:

a) Situational awareness

b) Basic instrument maneuvers

c) Preflight planning, operation of powerplant, aircraft systems, and engine run up procedures

d) Visual scanning and collision avoidance precautions

e) Windshear and wake turbulence avoidance procedures

(2) INTRODUCE:

a) Flight at Various Airspeeds From Cruise to Slow Flight

b) Maneuvering During Slow Flight

c) Power-Off Stalls

d) Power-On Stalls

e) Straight-and-Level Flight (IR)

f) Constant Airspeed Climbs (IR)

g) Constant Airspeed Descents (IR)

(3) REVIEW:

a) Use of Checklists

b) Airplane Servicing

c) Preflight Inspection

d) Minimum Equipment List

e) Engine Starting

f) Radio Communications

g) Before Takeoff Check

h) Normal Takeoff and Climb

i) Traffic Patterns

j) Collision Avoidance Precautions

k) Airspeed and Configuration Changes

I) Descents in High and Low Drag Configurations

m) Flight at Approach Airspeed

n) Normal Approach and Landing

o) Airport and Runway Markings and Lighting

p) Parking and Securing the Airplane

B. Completion Standards. Display increased proficiency in coordinated attitude control during basic maneuvers. Perform unassisted takeoffs. Demonstrate correct communications and traffic pattern procedures. Landing completed with instructor assistance. Maintain altitude within +/- 250 feet during airspeed transitions and while maneuvering at slow speeds. Indicate basic ability to control attitude by instrument reference (IR).

FLIGHT LESSON 4

FLIGHT MANEUVERS AND EMERGENCY PROCEDURES

A. Objectives. Practice the maneuvers listed for review to gain additional proficiency and demonstrate the ability to recognize and recover from stalls. The student will also receive instruction and practice in the maneuvers and procedures listed for introduction, including emergency operations and additional practice of airplane control by instrument reference (IR). Instructor may demonstrate secondary, accelerated maneuver, crossed-controlled, and elevator trim stalls. Emphasis will be on procedures related to airport operations, steep turns, slow flight, stalls, and stall recovery.

Content:

(1) PREFLIGHT DISCUSSION:

a) Wake turbulence avoidance

b) Workload management

c) Pilot-in-Command responsibilities

d) Emergency procedures and equipment malfunctions

e) Emergency field selection

(2) INTRODUCE:

a) Systems and Equipment Malfunctions

b) Emergency Procedures

c) Emergency Descent

d) Emergency Approach and Landing (Simulated)

e) Emergency Equipment and Survival Gear

f) Climbing and Descending Turns (VR) (IR)

g) Steep Turns

h) Turns to Headings (VR) (IR)

i) Flight at Slow Airspeeds with Realistic Distractions, and the Recognition and Recovery from Stalls Entered from Straight Flight and from turns.

j) Spin Awareness

k) Demonstrated Stalls (Secondary, Accelerated Maneuver, Crossed-Control, and Elevator Trim)

(3) REVIEW:

a) Airport and Runway Markings and Lighting

b) Airspeed and Configuration Changes

c) Flight at Approach Speed

d) Flight at Various Airspeeds From Cruise to Slow Flight

f) Maneuvering During Slow Flight

e) Power-Off Stalls

f) Power-On Stalls

g) Normal Takeoffs and Landings

h) Collision Avoidance Precautions

i) Traffic Patterns

B. Completion Standards. Display increased proficiency in coordinated airplane attitude control during basic maneuvers. Perform unassisted takeoffs. Demonstrate correct communications and traffic pattern procedures. Landings completed with instructor assistance. Demonstrate basic understanding of steep turns, slow flight, stalls, stall recovery, and emergency operations. Complete demonstrated stalls. Indicate basic understanding of airplane control by use of the flight of the flight instruments.

FLIGHT LESSON 5

GROUND REFERENCE MANEUVERS

A. Objectives. Practice the review maneuvers to gain proficiency. Introduce ground reference maneuvers and maneuvering at slow airspeeds by instrument reference. Emphasis will be on emergency landing procedures.

Content:

(1) PREFLIGHT DISCUSSION:

a) Situational awareness

b) Realistic distractions

c) Determining wind direction

(2) INTRODUCE:

a) Rectangular Courses

b) S-Turns

c) Turns Around a Point

d) Maneuvering During Slow Flight (IR)

(3) REVIEW:

a) Positive Exchange of Flight Controls

b) Maneuvering During Slow Flight (VR)

c) Power-Off Stalls

d) Power-On Stalls

e) Flight at Slow Airspeeds with Realistic Distractions, and the Recognition and

f) Recovery from Stalls Entered from Straight Flight and from Turns

g) Spin Awareness

h) Emergency Descent

i) Emergency Approach and Landing (Simulated)

j) Emergency Equipment and Survival Gear

k) Normal Takeoffs and Landings

I) Turns to Headings (VR)

m) Turns to Headings (IR)

B. Completion Standards. Display increased proficiency in coordinated airplane attitude control during basic maneuvers. Perform unassisted takeoffs. Demonstrate correct communications and traffic pattern procedures. Landings completed with a minimum of instructor assistance. Maintain altitude +/- 225 feet and headings +/- 15 degrees during straight-and-level flight. Demonstrate the ability to recognize and recover from stalls. Indicate basic understanding of attitude instrument flying instrument flying and simulated emergency landing procedures.

FLIGHT LESSON 6

AIRPORT OPERATIONS

A. Objectives. Practice the review maneuvers to gain proficiency. Introduce go-arounds, slips, and crosswind takeoffs and landings so the student may begin to learn the procedures during varying wind conditions. Review ground reference maneuvers. Emphasis will be on go-arounds and any of the more advanced maneuvers that appear to be difficult for the student.

Content:

(1) PREFLIGHT DISCUSSION:

a) Communication

b) Workload management

c) Lost communication procedures

d) Runway incursion avoidance

e) Land and Hold Short Operations (LAHSO)

(2) INTRODUCE:

a) Go-Around/Rejected Landing

b) Forward Slips to Landing

c) Crosswind Takeoff and Climb

d) Crosswind Approach and Landing

e) ATC Light Signals

f) Runway Incursion Avoidance

g) Land and Hold Short Operations (LAHSO)

(3) REVIEW:

a) Rectangular Courses

b) S-Turns

c) Turns Around a Point

d) Normal Takeoffs and Landings

e) Traffic Patterns

f) Wake Turbulence Avoidance

g) Emergency Descent

h) Emergency Approach and Landing (Simulated)

B. Completion Standards. Display increased proficiency in coordinated airplane attitude control. Demonstrate ability to fly a specific ground track while maintaining altitude +/- 200 feet. Demonstrate basic understanding of how the forward slip is used for an approach to a landing. Indicate knowledge of crosswind takeoff/landing procedures and go-arounds.

FLIGHT LESSON 7

PROFICIENCY FLIGHT: STEEP TURNS AND GROUND REFERENCE

A. Objective. Practice instrument Flight maneuvers, takeoffs, landings, and emergency procedures in preparation for solo flight. Review those maneuvers and procedures that appear to be difficult for the student. Emphasis on ground reference maneuvers and emergency operations.

Content:

(1) PREFLIGHT DISCUSSION:

a) Sections of FAR Parts 61 and 91 applicable to private pilots

b) Airspace rules and procedures for the airport where solo flight will be performed

c) Flight characteristics and operational limitations for the make and model of aircraft to be flown in solo flight

(2) REVIEW:

a) Straight-and-Level Flight (VR-IR)

b) Steep Turns

c) Constant Airspeed Climbs (VR-IR)

d) Constant Airspeed Descents (VR-IR)

e) Climbing and Descending Turns

f) Turns to Headings (IR)

g) Rectangular Courses

h) S-Turns

i) Turns Around a Point

j) Crosswind Takeoff and Climb

k) Crosswind Approach and Landing

l) Runway Incursion Avoidance

m) Land and Hold Short Operations (LAHSO)

n) Go-Around/Rejected Landing

o) Forward Slips to Landing

p) Systems and Equipment Malfunctions

q) Emergency Procedures

r) Emergency Descent

s) Emergency Approach and Landing (Simulated)

t) ATC Light Signals

B. Completion Standards. Display increased proficiency and skill in instrument scan and interpretation during practice flight maneuvers. Takeoffs, landings, and go-arounds should be performed without instructor assistance. Emergency procedures should be accomplished with minimal assistance. Ground reference maneuvers should indicate increasing proficiency and precision.

FLIGHT LESSON 8

PROFICIENCY FLIGHT: AIRPORT OPS AND SLOW FLIGHT

A. Objectives. Prior to this flight, the instructor will administer and grade the Presolo Written Exam and Briefing. Practice the listed review maneuvers and/or procedures, including emergency operations and basic instrument maneuvers, to help the student gain proficiency and confidence. Emphasis will be directed toward correction of any faulty tendencies to prepare the student for the first solo.

Content:

(1) PREFLIGHT DISCUSSION:

a) Presolo Written Exam critique

b) Presolo Flight training requirements

(2) REVIEW:

a) Operation of Systems

b) Preflight Inspection

c) Engine Starting

d) Radio Communication

e) Normal and/or Crosswind Taxiing

f) Before Takeoff Check

g) Normal and/or Crosswind Takeoff

h) Climbing and Descending Turns

i) Collision Avoidance Precautions

j) Wake Turbulence Avoidance

k) Straight-and-Level Flight (IR)

I) Turns to Headings (IR)

m) Maneuvering During Slow Flight (IR)

n) Power-Off Stalls

o) Power-On Stalls

p) Maneuvering During Slow Flight

q) Flight at Slow Airspeeds with Realistic Distractions, and the Recognition and

r) Recovery from Stalls Entered from Straight Flight and from Turns

s) Spin Awareness

t) Steep Turns

u) Rectangular Courses

v) S-Turns

w) Turns Around a Point

x) Systems and Equipment Malfunctions

y) Emergency Procedures

z) Emergency Descent

aa) Emergency Approach and Landing (Simulated)

bb) Traffic Patterns

cc) Forward Slips to Landing

dd) Go-Around/Rejected Landing

ee) Normal and/or Crosswind Approach and Landing

B. Completion Standards. This lesson is complete when the student successfully passes the PreSolo written exam with a minimum score of 80% and the instructor has reviewed each incorrect response to ensure complete understanding. Demonstrate the ability and readiness for supervised solo flight in the traffic pattern. Exhibit understanding of attitude instrument flying. Indicate good understanding of local airport and airspace rules as well as systems and equipment malfunctions and related emergency procedures.

FLIGHT LESSON 9

FIRST SOLO

A. Objectives. During the dual portion of the lesson, the instructor will review takeoff and landing procedures to check the student's readiness for solo flight. In the second portion of the lesson, the student will fly the first supervised solo flight in the local traffic pattern. Emphasis will be on the correct procedures and techniques for the student's first solo.

Content:

(1) PREFLIGHT DISCUSSION:

a) Any student questions

b) Student pilot supervised solo flight operations in the local traffic pattern

(2) REVIEW:

a) Engine Starting

b) Radio Communications

c) Normal and/or Crosswind Taxiing

d) Before Takeoff Check

e) Normal Takeoffs

f) Traffic Patterns

g) Go-Around/Rejected Landing

h) Normal Landings

(3) INTRODUCE:

a) Supervised Solo

b) Radio Communications

c) Taxiing

d) Before Takeoff Check

e) Normal Takeoffs and Climbs (3)

f) Traffic Patterns

g) Normal Approaches and Landings (3)

h) After Landing, Parking, and Securing

B. Completion Standards. The student will display the ability to solo the training airplane safely in the traffic pattern. At no time will the safety of the flight be in question. Complete solo flight in the local traffic pattern as directed by the instructor.

FLIGHT LESSON 10

STAGE CHECK

A. Objectives. The chief instructor, assistant chief instructor, or the designated check instructor will evaluate the student's proficiency to determine if he/she is prepared to depart the traffic pattern area on future solo flights. In addition, the student will be evaluated in all other maneuvers, procedures, and knowledge areas appropriate to the first stage of the Flight Training Syllabus.

Content:

(1) PREFLIGHT DISCUSSION:

(A.) CONDUCT OF THE STAGE I CHECK, INCLUDING:

a) Maneuvers

b) Procedures

c) Acceptable performance criteria

d) Applicable rules

(2) REVIEW:

a) Operation of Systems

b) Minimum Equipment List

c) Engine Starting

d) Radio Communications

e) Taxiing

f) Before Takeoff Check

g) Normal and/or Crosswind Takeoff and Climb

h) Collision Avoidance Precautions

i) Wake Turbulence Avoidance

j) Maneuvering During Slow Flight

k) Flight at Slow Airspeeds with Realistic Distractions, and the Recognition and Recovery from Stalls Entered from Straight Flight and from Turns

I) Spin Awareness

m) Power-Off Stalls

n) Power-On Stalls

o) Systems and Equipment Malfunctions

p) Emergency Procedures

q) Emergency Descent

r) Emergency Approach and Landing (Simulated)

s) Traffic Patterns

t) Normal and/or Crosswind Approach and Landing

B. Completion Standards. This lesson and Stage I are complete when the student can competently perform preflight duties and all other procedures and maneuvers necessary for the safe conduct of a solo flight in the local training area. Altitude will be maintained +/- 150 feet, headings +/- 15 degrees and airspeed +/- 10 knots. Additional instruction will be assigned, if necessary, to ensure that the student meets the standards for advancing to Stage II.

FLIGHT LESSON 11

PERFORMANCE TAKEOFFS AND LANDINGS

A. Objectives. Learn the basic procedures for short- and soft-field takeoffs, climbs, approaches, and landings in the training airplane. Review ground reference maneuvers, slow flight, and stall recognition. Determine if the student is competent to fly the second supervised solo in the traffic pattern. Emphasis on short- and soft-field takeoffs and landings.

Content:

(1) PREFLIGHT DISCUSSION:

a) Weight and balance computations

b) Performance estimates

c) Effects of high density altitude

d) Aeronautical decision making

e) Pilot-in-Command responsibility

(2) INTRODUCE:

a) Low-Level Wind Shear Precautions

b) Short-Field Takeoff and Climb

c) Soft-Field Takeoff and Climb

d) Short-Field Approach and Landing

e) Soft-Field Approach and Landing

B. Completion Standards. The student will be able to explain runway conditions that necessitate the use of soft-field takeoff and landing techniques. Demonstrate the correct procedure to be used under existing or simulated conditions, although proficiency may not be at private pilot level. Ground track during ground reference maneuvers will be accurate. Maintain altitude +/- 150 feet.

FLIGHT LESSON 12

SOLO 2

A. Objectives. The student will fly the second supervised solo in the local traffic pattern. Emphasize airport operations, including takeoff, traffic pattern, approach and landing procedures, as well as collision avoidance and radio communications.

Content:

(1) PREFLIGHT DISCUSSION:

a) Solo operations in the traffic pattern

(2) REVIEW:

Supervised Solo

a) Radio Communications

b) Taxiing

c) Before Takeoff Check

d) Normal Takeoff and Climb

e) Traffic Patterns

f) Normal Approach and Landing

g) After Landing, Parking, and Securing

B. Completion Standards. The Student will perform each of the takeoffs using the correct techniques. Liftoff speed will not vary from the recommended speed by more than five knots. The landing approaches will be stabilized, and the approach speed will not vary more than five knots from the desired speed. Smooth landing touchdowns at the correct speed within 300 feet of the desired touchdown point.

FLIGHT LESSON 13

SOLO 3

A. Lesson Objectives. Practice the listed maneuvers to gain proficiency and confidence. Review ground reference maneuvers to increase skill in maintaining specific ground tracks. Practice other maneuvers as directed by the flight instructor. Emphasis on traffic pattern entry, exit, approach, and landing procedures, including use of a stabilized approach.

Content :

(1) REVIEW:

a) Radio Communications

b) Normal and /or Crosswind Takeoffs and Climbs

c) Power-Off Stalls

d) Power-On Stalls

e) Maneuvering During Slow Flight

f) S-Turns

g) Turns Around a Point

h) Traffic Patterns

i) Normal and / or Crosswind Approaches and Landings

B. Completion Standards. This lesson is complete when the student has conducted the assigned solo flight. The student should attempt to gain proficiency in each of the assigned maneuvers and procedures.

FLIGHT LESSON 14

ATTITUDE INSTRUMENT FLYING

A. Objectives. Practice the listed maneuvers to gain proficiency and confidence. Introduce airplane control by instrument reference during emergency situations to broaden the student's knowledge. Emphasis will be on the introduction of VOR and ADF orientation, tracking, and homing, as well as attitude instrument flying.

Content:

(1) PREFLIGHT DISCUSSION:

a) Basic instrument maneuvers, including recovery from unusual flight attitudes

b) Radio communication, navigation systems/facilities, and radar services

c) Emergency descents and climbs

d) Resource use

e) Situational Awareness

f) Disorientation

(2) INTRODUCE:

a) VOR Orientation and Tracking (VR)

b) ADF Orientation and Homing (VR)

c) Power-Off Stalls (IR)

d) Power-On Stalls (IR)

e) Recovery from Unusual Flight Attitudes

f) Emergency Descents and Climbs using Radio Aids or Radar Directives (IR)

g) Using Radio Communications, Navigation Systems/Facilities, and Radar Services (IR)

(3) REVIEW:

a) Low Level Wind Shear Precautions

b) Short-Field Takeoffs and Climbs

c) Short-Field Approaches and Landings

d) Power-Off Stalls

e) Power-On Stalls

f) Maneuvering During Slow Flight (IR)

B. Completion Standards. Perform takeoffs and landings smoothly, while maintaining good directional control. Approaches will be stabilized and airspeed will be within five knots of that desired. Demonstrate basic understanding of VOR/ADF orientation, tracking and homing. Display the correct unusual attitude recovery techniques and be able to initiate emergency climbs and descents by instrument reference using radio communications, navigation facilities and radar services.

FLIGHT LESSON 15

PROFICIENCY FLIGHT: ATTITUDE INSTRUMENT FLYING

A. Objectives. Review attitude instrument flying, including all instrument procedures intended to help a private pilot (without an instrument rating) avoid hazardous situations due to marginal VMC or inadvertent flight into IMC. Review short- and soft-field procedures and emergency operations. Emphasis on attitude instrument flying.

Content:

(1) PREFLIGHT DISCUSSION:

a) Flight instrument functions, common errors, and limitations

b) Navigation instruments

c) Inadvertent flight into IMC

d) Operations in turbulence

e) Partial panel

f) Resource use

(2) REVIEW:

a) VOR Orientation and Racking (VR-IR)

b) ADF Orientation and Homing (VR-IR)

c) Flight on Federal Airways

d) Maneuvering During Slow Flight (VR-IR)

e) Power-Off Stalls (VR-IR) Power-On Stalls (VR-IR)

f) Emergency Descents and Climbs using Radio Aids or Radar Directives (IR)

g) Using Radio Communication, Navigation Systems/Facilities, and Radar Services (IR)

h) Recovery From Unusual Flight Attitudes (IR)

i) Short-Field Takeoffs and Landings

j) Soft-Field Takeoffs and Landings

k) Crosswind Takeoffs and Landings

I) Forward Slips to a Landing

m) Go-Around/Rejected Landing

n) Emergency Operations

B. Completion Standards. Demonstrate competency in basic instrument maneuvers and procedures at the private pilot level, including control of the airplane during unusual attitude recoveries, and emergency climbs and descents. Control altitude +/- 150 feet during level turns, straight-and-level flight, and slow flight. Stall recoveries should be coordinated with a minimum loss of altitude. Demonstrate increasing skill in short and soft-field takeoff and landing procedures. Display the correct recovery techniques from stalls and unusual attitudes. Be able to initiate emergency climbs and descents by instrument reference using radio communications, navigation facilities, and radar services.

FLIGHT LESSON 16

NIGHT OPERATIONS

A. Objectives. Introduce the special operational considerations associated with night flying. Practice night traffic patterns, approaches, and landings. Stress importance of including instrument references for maintaining attitude. Emphasize the physiological factors and additional planning associated with the night environment.

Content:

(1) PREFLIGHT DISCUSSION:

a) Preparation for night flying

b) Night vision

c) Disorientation

d) Visual illusions

e) Night scanning/collision avoidance

f) Aircraft, airport, and obstruction lighting

g) Personal equipment

(2) INTRODUCE:

a) Aeromedical Factors

b) Flight Planning Considerations

c) Use of Checklists

d) Preflight Inspection

e) Airworthiness Requirements

f) Minimum Equipment List

g) Taxiing

h) Before Takeoff Check

i) Power-Off Stalls

j) Power-On Stalls

k) Steep Turns

I) Maneuvering During Slow Flight

m) Normal Takeoffs and Climbs

n) Normal Approaches and Landings

o) Short-Field Takeoffs and Landings

p) Soft-Field Takeoffs and Landings

q) Go-Around / Rejected Landing

r) VFR Navigation

B. Completion Standards. Demonstrate an understanding of the importance of attitude control. Control altitude +/- 150 feet during level turns, straight and level flight, and slow flight. Stall recoveries should be coordinated with a minimum loss of altitude. Complete 5 takeoffs and landings to a full stop with each landing involving flight in traffic pattern. All landing approaches should be stabilized with a touchdown at a predetermined area on the runway.

FLIGHT LESSON 17

CROSS-COUNTRY

A. Objectives. Introduce cross-country procedures and the proper techniques to be used during flights out of the local training area, including use of VOR, ADF, and radar services under simulated instrument flight conditions. Prepare the student to make cross-country flights as the sole occupant of the airplane. Review instrument and emergency operations. Emphasize cross-country navigation procedures that include a point of landing at least a straight-line distance of more than 50 nautical miles from the original point of departure.

Content:

(1) PREFLIGHT DISCUSSION:

a) CROSS-COUNTRY FLIGHT PLANNING

b) Sectional charts

c) Flight publications

d) Route selection and basic navigation procedures (pilotage and dead reckoning)

e) Weather information

f) Fuel requirements

g) Performance and limitations

h) Navigation log

i) FAA Flight plan (how to open, close, or amend)

j) Weight and balance

k) Cockpit management

I) Aeromedical factors

m) Aeronautical decision making

n) Resource use

o) Workload management

p) Basic instrument maneuvers and procedures

(2) INTRODUCE:

CROSS-COUNTRY FLIGHT

a) Departure

b) Opening Flight Plan

c) Course Interception

d) Pilotage

e) Dead Reckoning

f) VOR Navigation

g) ADF Navigation

h) Power Settings and Mixture Control

i) Diversion to an Alternate

j) Lost Procedures

k) Estimates of Groundspeed and ETA

I) Position Fix by Navigation Facilities

m) Flight on Federal Airways

n) Collision Avoidance Precautions

o) Closing the Flight Plan

INSTRUMENT FLIGHT

a) VOR Tracking (IR)

b) ADF Homing (IR)

c) Use of Radar Services (IR)

AIRPORT OPERATIONS

a) National Airspace System

b) Controlled Airports

c) Use of ATIS

d) Use of Approach and Departure Control

e) Go-Around/Rejected Landing

f) CTAF (FSS or UNICOM) Airports

3) REVIEW:

a) Emergency Operations

b) Systems and Equipment Malfunctions

c) Emergency Descent

d) Runway Incursion Avoidance

e) Emergency Approach and Landing (Simulated)

f) Emergency Equipment and Survival Gear

B. Completion Standards: Demonstrate the skill to perform cross-country flight safely as the sole occupant of the airplane, including use of navigation systems and radar services under simulated conditions. Include a point of landing at least a straight-line distance of more than 50 nautical miles from the original point of departure. Demonstrate complete preflight planning, weather

analysis, use of FAA publications and charts, adherence to the preflight plan, and the use of pilotage, dead reckoning, radio communication, and navigation systems.

FLIGHT LESSON 18

NIGHT CROSS-COUNTRY

A. Objectives. Introduce night navigation and emergency operations. Recognize the importance of thorough planning and accurate navigation. The flight should include a total distance of more than 100 nautical miles and a point of landing at least a straight-line distance of more than 50 nautical miles from the original point of departure. Attitude instrument flying practice. Emphasize precise aircraft control and the navigation accuracy required for night VFR cross-country flights.

Content:

1) PREFLIGHT DISCUSSION:

a) Night orientation, navigation, and chart reading techniques

b) Weather information

c) Route selection

d) Altitude selection

e) Fuel requirements

f) Departure and arrival procedures

(2) INTRODUCE:

a) Use of ATIS, Approach, and Departure Control

b) Pilotage

c) Dead Reckoning

d) Radio Navigation (VR-IR)

e) Emergency Operations

f) Use of Unfamiliar Airports

g) Collision Avoidance Precautions

h) Diversion to Alternate

i) Lost Procedures

j) Unusual Attitude Recoveries (IR)

(3) REVIEW:

a) Aeromedical Factors

b) Maneuvering During Slow Flight (VR-IR)

c) Normal Takeoffs and Climbs

d) Normal Approaches and Landings

e) Short-Field Takeoffs and Landings

f) Soft-Field Takeoffs and Landings

g) Go-Around/Rejected Landing

B. Completion Standards: Demonstrated an understanding of night cross- country preparation and flight procedures, including ability to maintain attitude by instrument reference. Navigation should be accurate, and simulated emergency situations should be handled promptly, utilizing proper judgment. Total distance of more than 100 nautical miles required. In addition, the flight must include a point of landing at least a straight-line distance of more than 50 nautical miles from the original point of departure. Complete 5 takeoffs and landings to a full stop with each involving flight in the traffic pattern. Landing approaches stabilized with touch-down at or near the appropriate touchdown area on the runway.

FLIGHT LESSON 19

CROSS-COUNTRY SOLO

A. Objectives. Use previous experience and training to complete solo cross- country. Increase proficiency and confidence. The Flight should include a point of landing that is at least a straight line distance of more than 50 nautical miles from the original point of departure. Emphasize planning and following the plan, including alternatives.

Content:

(1) PREFLIGHT DISCUSSION:

a) Review the Solo Cross-Country Briefing

b) Required documents and endorsements

c) Basic VFR weather minimums and airspace rules

d) Enroute communication

e) ATC services available to pilots

f) Enroute weather information

g) VFR position report

h) Emergency operations

i) Lost procedures

j) Diversion

k) Lost communication procedures

I) ATC light signals

m) Aeronautical decision making

n) Resource use

o) Workload management

(2) REVIEW:

Preflight Preparation

a) Sectional Charts

b) Flight Publications

c) Route Selection

d) Weather Information

e) Fuel Requirements

f) Performance and Limitations

g) Weight and Balance

h) Navigation Log

i) FAA Flight Plan

j) Aeromedical Factors

Cross-Country Flight

k) Opening the Flight Plan

l) VOR and ADF Navigation

m) Position Fix by Navigation Facilities

n) Pilotage

o) Dead Reckoning

p) Use of Unfamiliar Airports

q) Estimates of Groundspeed

r) Estimates of ETA

s) Closing the Flight Plan

B. Completion Standards. Demonstrate accurate planning and conduct a VFR cross-country flight using three methods of navigation. During the post-flight evaluation, the student will exhibit an understanding of unfamiliar airport operations. At least one landing more than 50 n.m. from the departure airport.

FLIGHT LESSON 20

STAGE CHECK

A. Objectives. Demonstrate accurate planning and conduct a VFR cross-country flight using three methods of navigation. During the post-flight evaluation, the student will exhibit an understanding of unfamiliar airport operations. At least one landing more than 50 n.m. from the departure airport. This stage check, conducted by the chief instructor, the assistant chief instructor, or the designated check instructor, will evaluate the student's takeoff, landing, and stall recognition/recovery procedures to determine any areas of weakness. Additionally, the student's ability to plan and conduct cross-country flights will be evaluated, as well as safe and effective operation of the aircraft during all other phases of Flight in Stages I and II of the Private Pilot Flight Training Syllabus.

Content:

(1) PREFLIGHT DISCUSSION:

CONDUCT OF THE STAGE II CHECK, INCLUDING:

a) Maneuvers

b) Procedures

c) Acceptable performance criteria

d) Applicable rules

(2) REVIEW:

PREFLIGHT PREPARATION

a) National Airspace System

b) Cross-Country Planning

c) Weather Information

d) Cockpit Management

e) Use of Checklists

CROSS-COUNTRY FLIGHT

f) Departure

g) Course Interception

h) VOR Navigation

i) Pilotage

j) Dead Reckoning

k) Collision Avoidance Precautions

I) Low Level Wind Shear Precautions

m) Diversion to Alternate

n) Lost Procedures

o) Emergency Operations

B. Completion Standards. Demonstrate the ability to plan and conduct cross-country flights using sound knowledge of flight planning, preflight action, weather analysis, and the appropriate aeronautical publications. Exhibit the correct use of three methods of navigation, the ability to correctly determine location at any time, the ability to compute ETAs within 10 minutes, and the correct technique for establishing a course to an alternate airport. Demonstrate short and soft field takeoffs with consistent results. The student should be proficient in all other maneuvers, as well as the associated knowledge area of Stage I and Stage II prior to advancing Stage III.

FLIGHT LESSON 21

SOLO CROSS-COUNTRY II

A. Objectives. Complete the scheduled cross-country flight to improve judgment and confidence when operating in unfamiliar areas. The flight should include a point of landing at least a straight line distance of more than 50 nautical miles from the original point of departure. Three takeoffs and landings to a full stop with each landing involving flight in the traffic pattern at an airport with an operating control tower. Emphasize cross-country procedures and rules for flight within Class D airspace.

Content:

(1) PREFLIGHT DISCUSSION:

a) Required documents and endorsements

b) Basic VFR weather minimums

c) Route of flight/alternates, emergency operations

d) Lost procedures

e) Diversion

f) ETA estimates

g) Fuel requirements

h) Aeronautical charts and publications that apply to the flight

i) Airspace rules pertinent to the planned route of flight

j) Enroute communication, ATC services, and pertinent sources of weather information

k) Aeronautical decision making

I) Situational awareness

(2) REVIEW:

PREFLIGHT PREPARATION

a) Sectional Charts

b) Flight Publications

c) Route Selection

d) Weather Information

e) Fuel Requirements

f) Performance and Limitations

g) Weight and Balance

h) Navigation Log

i) FAA Flight Plan

CROSS-COUNTRY FLIGHT

j) VOR Navigation

k) Position Fix by Navigation Facilities

I) Pilotage Dead Reckoning

m) Estimates of Groundspeed

n) Estimates of ETA

o) Use of Unfamiliar Airports

B. Completion Standards. This lesson is complete when the student has conducted the assigned cross-country flight. Review the student's navigation log; revised inflight ETAs at each checkpoint should not vary by more than +/ 5 minutes. At least one landing more than 50 n.m. from the departure airport. Successfully accomplish the three traffic pattern, takeoff, and landing requirements at a controlled airport.

FLIGHT LESSON 22

CROSS-COUNTRY LONG SOLO

Objectives. During this lesson, the student will complete the long cross- country requirement. This flight should be of at least 100 nautical miles, total distance, with landings at a minimum of three points, including a straight-line segment at least 50 nautical miles between takeoff and landing locations. Three takeoffs and landings to a full stop with each landing involving flight in the traffic pattern at an airport with an operating control tower. Emphasize cross-country procedures and rules for flight within Class D airspace.

Content:

(1) PREFLIGHT DISCUSSION:

a) Conduct of the planned flight

b) Cockpit management, decision making, and judgment

c) FAA flight plan (how to open, close, or amend)

d) Use of the magnetic compass

e) Emergency descent procedures

f) Emergency operations

g) Enroute communications and facilities

h) In-flight weather analysis

i) Unfamiliar airport operations

(2) REVIEW:

PREFLIGHT PREPARATION

a) National Airspace System

b) Sectional Charts

c) Flight Publications

d) Route Selection

e) Weather Information

f) Fuel Requirements

g) Performance and Limitations

h) Weight and Balance

i) Navigation Log

j) FAA Flight Plan

CROSS-COUNTRY FLIGHT

k) Opening and Closing the Flight Plan

l) VOR Navigation Pilotage

m) Dead Reckoning

n) Estimates of Groundspeed

o) Estimates of ETA

p) Use of Controlled Airports

q) Use of Airports with CTAF (FSS and/or UNICOM)

B. Completion Standards: Demonstrate cross-country proficiency by completing the flight as planned and without incident. Review the completed navigation log during the postflight evaluation to determine whether it was completed and used correctly. The cross-country flight must include a distance of over 100 n.m. with landings at a minimum of three points, including at least one segment of the flight consisting of a straight-line-distance of at least 50 n.m. between takeoff and locations. Successfully accomplish the three traffic pattern, takeoff, and landing requirements at a controlled airport.

FLIGHT LESSON 23

REVIEW 1

A. Objectives. Review the areas of operation, including specified maneuvers and procedures determined by the instructor to increase proficiency to the level required of a private pilot. Further develop the student's knowledge and skill in preparation for the private pilot practical test. Emphasis will be on correction of any deficient skill or knowledge areas.

Content:

(1) PREFLIGHT DISCUSSION:

a) Maneuvers and procedures in preparation for the Stage III Check, End-of-Course Flight Check, and FAA Practical Test, including spin awareness and night operations.

(2) REVIEW:

b) Preflight Preparation

c) Ground Operations

d) Maneuvering During Slow Flight (VR-IR)

e) PowerOff and PowerOn Stalls (VR-IR)

f) Steep Turns

g) Ground Reference Maneuvers

h) Emergency Descents and Climbs Using Radio Aids or Radar Directives (IR)

i) Using Radio Communications, Navigation Systems/Facilities, and Radar

Services (IR)

j) Unusual Attitude Recoveries (IR)

k) Airport Operations

I) Normal and/or Crosswind Takeoffs and Landings

m) GoAround/Rejected Landing

n) ShortField Takeoffs and Landings

o) SoftField Takeoffs and Landings

p) Forward Slips to Landing

q) Emergency Operations

r) After Landing, Parking, and Securing Cross-country Flight Procedures

s) Specific Maneuvers or Procedures Assigned by the Flight Instructor

B. Completion Standards. The student will exhibit progress and acceptable proficiency by performing each assigned maneuver smoothly and with proper coordination and precision according to the criteria established by the Private Pilot Practical Test Standards.

FLIGHT LESSON 24

REVIEW 2

A. Objectives. Review the areas of operation specifically assigned by the instructor with special emphasis on correcting any deficiency in the performance of maneuvers or procedures before the Stage III Check. Further develop the student's knowledge and skill in preparation for the private pilot practical test. Emphasis will be on correction of any deficient skill or knowledge areas.

Content:

(1) PREFLIGHT DISCUSSION:

a) Maneuvers and procedures in preparation for the Stage III Check, End-of-Course Flight Check and FAA Practical Test, including spin awareness and night operations

(2) REVIEW:

a) Preflight Preparation

b) Ground Operations

c) Maneuvering During Slow Flight (VR-IR)

d) PowerOff and PowerOn Stalls (VR-IR)

e) Steep Turns

f) Ground Reference Maneuvers

g) Emergency Descents and Climbs Using Radio

h) Aids or Radar Directives (IR)

i) Using Radio Communications, Navigation

j) Systems/Facilities, and Radar Services (IR)

k) Unusual Attitude Recoveries (IR)

I) Airport Operations

m) Normal and/or Crosswind Takeoffs and Landings

n) GoAround/Rejected Landing

o) ShortField Takeoffs and Landings

p) SoftField Takeoffs and Landings

q) Forward Slips to Landing

r) Emergency Operations

s) After Landing, Parking, and Securing

t) Cross-country Flight Procedures

u) Specific Maneuvers or Procedures Assigned by the Flight Instructor

B. Completion Standards. The lesson is complete when the student has practiced the assigned maneuvers and procedures. The student should exhibit competence and ability to correct any weak performance areas determined previously. Perform each assigned maneuver and procedure with proper coordination and precision according to the criteria established in the Private Pilot Practical Test Standards.

FLIGHT LESSON 25

STAGE CHECK

A. Objectives. This stage check, conducted by the chief instructor, the assistant chief instructor, or the designated check instructor, will evaluate the student's ability to perform the listed maneuvers at the proficiency level of a private pilot. Additionally, the student's ability to plan and conduct cross-country flights safely will be evaluated, as well as safe and effective operation of the aircraft during all other phases of flight in Stage III of the Private Pilot Flight Training Syllabus.

Content:

(1) PREFLIGHT DISCUSSION:

CONDUCT OF THE STAGE III CHECK, INCLUDING:

a) Maneuvers

b) Procedures

c) Acceptable performance criteria

d) Applicable rules

e) Human factors concepts

(2) REVIEW:

MANEUVERS AND PROCEDURES

a) Preflight Preparation

b) Ground Operations

c) Maneuvering During Slow Flight (VR-IR)

d) PowerOff and PowerOn Stalls (VR-IR)

e) Steep Turns

f) Ground Reference Maneuvers

g) Emergency Descents and Climbs Using Radio Aids or Radar Directives (IR)

h) Using Radio Communications, Navigation

i) Systems/Facilities, and Radar Services (IR)

j) Unusual Attitude Recoveries (IR)

k) Airport Operations

I) Normal and/or Crosswind Takeoffs and Landings

m) GoAround/Rejected Landing

n) ShortField Takeoffs and Landings

o) SoftField Takeoffs and Landings

p) Forward Slips to Landing

q) Emergency Operations

r) After Landing, Parking, and Securing

CROSS-COUNTRY FLIGHT

s) Radio Navigation

t) Pilotage and Dead Reckoning

u) Diversion to Alternate

v) Lost Procedures

B. Completion Standards. Each maneuver and procedure should be performed at the proficiency level of a private pilot. Mastery of the airplane should be evident and the successful outcome of each task performed should be expected. Any maneuvers or procedures which do not meet this standard should be reviewed with the student and assigned additional practice. Student should exhibit a sound understanding of the knowledge, skill and proficiency requirements for private pilot certification. Demonstrate the ability to plan and conduct cross-country flights using sound knowledge of flight planning, preflight action, weather analysis, and the appropriate aeronautical publications.

FLIGHT LESSON 26

END-OF-COURSE FLIGHT CHECK

A. Objectives. This End-of-Course Flight Check, conducted by the chief instructor, the assistant chief instructor, or the designated check instructor, is to evaluate the student's overall proficiency, skill, and knowledge in private pilot operations. Additionally, the student will exhibit the sound judgment and decision making capabilities necessary for a private pilot to operate effectively and safely within the U.S. National Airspace System.

Content:

(1) PREFLIGHT DISCUSSION:

CONDUCT OF THE END-OF-COURSE FLIGHT CHECK, INCLUDING:

a) Maneuvers

b) Procedures

c) Acceptable performance criteria

d) Applicable rules

(2) REVIEW:

PREFLIGHT PREPARATION

a) Certificates and Documents

b) Requirements

c) Weather Information

d) Performance and Limitations

e) Cross-country Flight Planning

f) Operation of Systems

g) Aeromedical factors

CROSS-COUNTRY FLYING

h) Pilotage and Dead Reckoning

i) Radio Navigation

j) Diversion to an Alternate

k) Lost Procedures

BASIC PILOTING SKILLS

I) Preflight Inspection

m) Cockpit Management

n) Use of Checklist

o) Engine Starting

p) Taxiing

q) Before Takeoff Check

r) Radio Communications

s) ATC Light Signals

t) Collision Avoidance Precautions

u) Low-Level Wind Shear Precautions

v) Wake Turbulence Avoidance

w) Airport and Runway Markings and Lighting

x) Normal and Crosswind Takeoffs and Climbs

y) Short-Field Takeoff and Climb

z) Soft-Field Takeoff and Climb

aa) Straight-and-Level Flight (VR-IR)

bb) Constant Airspeed Climbs (VR-IR)

cc) Constant Airspeed Descents (VR-IR)

dd) Turns to Headings (VR-IR)

ee) Unusual Attitudes (IR)

ff) Using Radio Communications, Navigation Facilities, and Radar Services (IR)

gg) Maneuvering During Slow Flight

hh) PowerOff Stalls

ii) PowerOn Stalls

jj) Flight at Slow Airspeeds with Realistic

kk) Distractions, and the Recognition and Recovery from Stalls Entered from

Straight

II) Flight and Turns

mm) Spin Awareness

nn) Steep Turns

oo) Ground Reference Maneuvers

pp) Emergency Descent

qq) Emergency Approach and Landing (Simulated)

rr) Emergency Equipment and Survival Gear

ss) Systems and Equipment Malfunctions

tt) Traffic Patterns

uu) Normal and Crosswind Approaches and Landings

vv) Forward Slips to Landing

ww) GoAround/Rejected Landing

xx) ShortField Approach and Landing

yy) SoftField Approach and Landing

zz) After Landing, Parking, and Securing

B. Completion Standards. The student will demonstrate proficiency that meets or exceeds the standard of performance outlined in the current FAA Private Pilot Practical Test Standards. Mastery of the airplane should be demonstrated with the successful outcome of each task performed never seriously in doubt. Additional instruction will be assigned, if necessary, to meet the stage and course completion standards.

Washington International Flight Academy
Approved Practice Areas