



**Flight and Ground Training Syllabus  
for  
Private Pilot Certification Course  
Airplane – Single Engine land**

(This manual to be used in conjunction with the approved 141  
General Operating Procedures Manual)



Flight and Ground Training Syllabus  
FAA Part 141 #W8LS876K  
Private Pilot - Airplane

## Twin Cities Flight Training, Inc.

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### Flight and Ground Training Syllabus Revision Record

Revision #	Date	Page Numbers	Initials
Revision 1	8-15-2009	Pg 1 Revision Record	
Revision 1	8-15-2009	Pg 1 Student Flight & Ground Record	
Revision 1	8-15-2009	Pg 2 Flight & Ground Training Syllabus	

Revision - 1  
8-15-2009



Flight and Ground Record  
FAA Part 141 #W8LS876K  
Private Pilot - Airplane

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To be used in conjunction with  
**Student Flight and Ground Record**  
**Private Pilot Airplane**

	<b>Completed (Date)</b>
1. Copy of student pilot license, drivers license and Medical	_____
2. TSA requirements met (Birth certificate & Photo ID, Naturalization papers, Passport)	_____
3. Issue Enrollment Certificate	_____
4. Able to conduct pre-flight inspections unassisted	_____
5. Able to safely conduct <u>Engine Start</u> and <u>Engine Shut Down</u> unassisted	_____
6. Stage One Written Exam – Ground	_____
7. Stage Two Written Exam – Ground	_____
8. Stage Three Written Exam – Ground	_____
9. Stage One Practical Exam – Flight	_____
10. Pre-Solo Written Exam	_____
11. FAA Written Exam completed	_____
12. Stage Two Practical Exam – Flight	_____
13. Stage Three Practical Exam – Flight	_____
14. Logbook endorsements completed	_____
15. All FAR Private Pilot requirements met	_____
16. 8710-1 completed prior to scheduling FAA Oral/Practical Exam	_____
17. Graduation Certificate Issued	_____



Flight and Ground Record  
 FAA Part 141 #W8LS876K  
 Private Pilot - Airplane

**Incomplete Lesson / Review Sheet**

**Student name:** \_\_\_\_\_ **Lesson #** \_\_\_\_\_

**Notes:**

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**Instructor Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_



**Flight and Ground Training Syllabus  
for  
Private Pilot Certification Course  
Airplane – Single Engine Land**

Ground Instruction  
35 Hours

Flight Instruction  
Dual 24 Hours  
Solo 11 Hours  
Total 35 Hours



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### **Course Title**

Private Pilot Certification Course, Airplane – Single Engine Land. This training course outline meets all of the curriculum requirements for the Private Pilot Airplane Single Engine Land certification course contained in 14 CFR FAR Part 141.55.

### **Student Eligibility**

Student enrollment for Ground Training is not age limited. However, the student must be able to read, speak, write, and understand the English language. To be eligible for Flight Training, the student must hold a Student Pilot / Medical Certificate. To graduate from the course and to be eligible for their Private Pilot Certificate, the student must be at least seventeen (17) years of age.

### **Course Objectives**

The student shall endeavor to obtain the aeronautical knowledge, skill and experience necessary to meet the requirements for the Private Pilot Certificate with a Airplane category – Single Engine Land rating. This syllabus is to be used as a guide. The time listed for each lesson, ground or flight, is the minimum time required. The flight lessons may consist of more than one flight due to weight & balance considerations or student schedules. Lessons within a stage are not required to be given in exact order but should be followed as closely as weather and student schedules permit.

### **Completion Standards**

The student shall demonstrate that s/he meets the FAA Practical Test Standards by satisfactory completion of a written knowledge exam, an oral exam, a flight review and appropriate documentation compiled by Twin Cities Flight Training, Inc., that the student has the necessary aeronautical knowledge, skill, and experience necessary to meet the requirements to obtain a Private Pilot Certificate with a Airplane - Single Engine Land rating.

### **Additional Training Aids / Materials**

1. Course Syllabus
2. Aircraft Flight Manual (POH)
3. Jeppesen Private Pilot training manual
4. FAR/AIM book
5. Private Oral Exam Guide
6. Private Pilot Test Prep Guide
7. Flight Computer E6B
8. Plotter
9. Personal Logbook



### **Further Suggested Reading**

1. Pilot's Handbook of Aeronautical Knowledge
2. Airplane Flying Handbook
3. Aviation Weather Services AC 00-45D
4. Aviation Weather AC 00-6A
5. The Pilot's Radio Communication Handbook (Practical Flying Series)
6. Avoiding Common Pilot Errors
7. Aeronautical Chart User's Guide

### **Primary Airport Facilities**

All Part 141 training flights will originate from the Anoka/Blaine (ANE) or Downtown St. Paul Airport (Holman Field)(STP). Fuel and maintenance are available during all scheduled training flights. Both airports meet the requirements of 14 CFR FAR Part 141.38 for day and night operations.

### **Training Aircraft**

All aircraft meet the requirements of 14 CFR FAR Part 141.39. The aircraft are equipped for day and night VFR as specified in 14 CFR Part 91.205.

### **Chief Flight Instructor**

The Chief Flight Instructor designated for this course must meet the qualifications listed in 14 CFR FAR Part 141.35(b). The Chief Flight Instructor is listed in Twin Cities Flight Training, Inc Part 141 General Operating Procedures Manual Appendix A.

### **Assistant Chief Flight Instructor**

The Assistant Chief Flight Instructor designated for this course must meet the qualifications listed in 14 CFR FAR Part 141.36. The Assistant Chief Flight Instructor is listed in Twin Cities Flight Training, Inc Part 141 General Operating Procedures Manual Appendix A.

### **Flight Instructors**

Each Flight Instructor assigned to this course must be the holder of at least a Certified Flight Instructor certificate and a Commercial Pilot Certificate with an Airplane Category rating and a Single Engine Land Class rating.





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<b>Lesson Time Allocation</b>											
<b>Ground Training</b>				<b>Flight Training</b>							
Class Discussion	Pilot Briefings	Stage/Final Exams	Exam Debriefing	<b>Dual</b>					<b>Solo</b>		
				Day Local	Day Cross-Country	Night Local	Night Cross-Country	Instrument	Day Local	Day Cross-Country	
<b>Ground Stage I, II and Flight Stage I</b>											
2				Ground Lesson 1 – Discovering Aviation							
2				Ground Lesson 2 – Airplane Systems							
				Flight Lesson 1							
				.5							
2				Ground Lesson 3 – Aerodynamic Principles							
				Flight Lesson 2							
				1.0							
2				Ground Lesson 4 – The Flight Environment							
				Flight Lesson 3							
				1.0				(.2)			
2				Ground Lesson 5 – Communication and Flight Info							
				Flight Lesson 4							
		1.0	.5	1.0				(.2)			
				Ground Lesson 6 – Stage I Exam							
				Flight Lesson 5							
				1.0				(.2)			
2				Ground Lesson 7 – Meteorology for Pilots							
				Flight Lesson 6							
				1.0							
2				Ground Lesson 8 – Federal Aviation Regulations							
				Flight Lesson 7							
				1.0				(.2)			
2				Ground Lesson 9 – Interpreting Weather Data							
	1.0		As Req	Presolo Written Exam and Briefing							
				Flight Lesson 8							
				1.0				(.2)			
				Flight Lesson 9							
		1.0	.5	.5					.5		
				Ground Lesson 10 – Stage II Exam							
				Flight Lesson 10 – Stage Check							
				1.0							
<b>16</b>	<b>1.0</b>	<b>2.0</b>	<b>1.0</b>	<b>Stage Totals</b>			<b>9.0</b>			<b>(1.0)</b>	



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<b>Lesson Time Allocation</b>										
<b>Ground Training</b>					<b>Flight Training</b>					
Class Discussion	Pilot Briefings	Stage/Final Exams	Exam Debriefing		<b>Dual</b>				<b>Solo</b>	
					Day Local	Day Cross-Country	Night Local	Night Cross-Country	Instrument	Day Local
<b>Ground Stage III and Flight Stage II</b>										
2.0				Ground Lesson 11 – Airplane Performance						
				Flight Lesson 11	1.0					
2.0				Ground Lesson 12 – Navigation						
				Flight Lesson 12					1.0	
2.0				Ground Lesson 13 – Human Factor Principles						
				Flight Lesson 13					1.0	
2.0				Ground Lesson 14 – Flying Cross Country				(.5)		
				Flight Lesson 14	1.0					
		1.0	.5	Ground Lesson 15 – Stage III Exam						
				Flight Lesson 15	1.0			(.5)		
				Flight Lesson 16			1.0			
				Flight Lesson 17		2.0		(.5)		
				Flight Lesson 18				2.0	(.5)	
	1.5			Briefing – Solo Cross Country						
				Flight Lesson 19						2.5
		3.0	1.0	Ground Lesson 16 & 17 – Final Exams A & B						
				Flight Lesson 20 – Stage Check	1.0					
<b>8.0</b>	<b>1.0</b>	<b>4.0</b>	<b>1.5</b>	<b>Stage Totals</b>	<b>4.0</b>	<b>2.0</b>	<b>1.0</b>	<b>2.0</b>	<b>(2.0)</b>	<b>2.5</b>



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Lesson Time Allocation											
Ground Training				Flight Training							
Class Discussion	Pilot Briefings	Stage/Final Exams	Exam Debriefing	Dual					Solo		
				Day Local	Day Cross-Country	Night Local	Night Cross-Country	Instrument	Day Local	Day Cross-Country	
<b>Flight Stage III</b>											
				Flight Lesson 21							2.0
				Flight Lesson 22							4.0
				Flight Lesson 23	2.0				As Req		
				Flight Lesson 24	2.0				As Req		
				Flight Lesson 25 – Stage Check	1.0						
	As Req			Briefing – Private Pilot Practical Test							
				Flight 26 – End-of-Course Flight Check	1.0				As Req		
				<b>Stage Totals</b>	<b>6.0</b>				<b>As Req</b>		<b>6.0</b>
<b>24</b>	<b>2.5</b>	<b>6.0</b>	<b>2.5</b>	<b>Private Pilot Course Totals</b>	<b>19</b>	<b>2.0</b>	<b>1.0</b>	<b>2.0</b>	<b>(3.0)</b>	<b>2.5</b>	<b>8.5</b>

*The individual times shown on the accompanying Lesson Time Allocation tables are for instructor/student guidance only; they are not mandatory for each ground lesson, flight, or stage of training. At the conclusion of this course, the student must meet the minimum requirements of FAR Part 141, Appendix B, for each category in order to graduate. Preflight and post-flight briefing times are not specified, but a minimum of .5 hours for each dual and solo flight is suggested. The times for Pilot Briefings, although assigned and completed along with selected flight lessons, are considered part of ground training.*



## **Ground Training Course Outline**



## **Ground Training 35 Hours**

### **Ground Training Course Objectives**

The student will endeavor to obtain the necessary aeronautical knowledge and meet the prerequisites specified in 14 CFR FAR Part 61.105 and 14 CFR FAR Part 141 for the Private Pilot Airplane practical exam.

### **Ground Training Completion Standards**

The student will demonstrate through oral and written exams and records maintained by Twin Cities Flight Training, Inc. that s/he meets the prerequisites specified in 14 CFR FAR Part 61.105 and 141 before taking the FAA Private Pilot Airplane – Single Engine Land knowledge and oral exams.

### **Initial Certification**

Initial Certification Students

Ground training shall be accomplished in three (3) staged. Each of these instructional stages is described in the succeeding pages of this syllabus.

This course should be conducted concurrently with the Flight training syllabus for initial certification students.



Flight and Ground Training Syllabus  
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Private Pilot - Airplane

**Stage I**

**Ground Training**

**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 will 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 score of 80%, and the instructor has reviewed each correct response to ensure complete understanding before the student progresses to Stage II.



**Stage I**  
**Ground Lesson 1**

**Text Reference:**

*Jeppesen Private Pilot Manual – Chapter 1, Discovering Aviation*

**Recommended Sequence**

*Note: Student's should read Chapter 1, Sections A, B, and C prior to Ground Lesson 1.*

1. Lesson Introduction
2. Discussion

**Lesson Objectives**

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

**Content**

*Section A – Pilot Training*

- ❖ How to get started
- ❖ Role of the FAA
- ❖ Fixed-Base Operators (FBOs)
- ❖ Eligibility Requirements
- ❖ Types of Training Available
- ❖ Phases of Training
- ❖ Private Pilot Privileges and Limitations

*Section B – Aviation Opportunities*

- ❖ New Experiences
- ❖ Aviation Organizations
- ❖ Category/Class Ratings
- ❖ Additional Pilot Certificates
- ❖ Aviation Careers

*Section C – Introduction to Human Factors*

- ❖ Aeronautical Decision Making
- ❖ Crew Resource Management Training
- ❖ Pilot-in-Command Responsibility
- ❖ Communication
- ❖ Resource Use
- ❖ Workload Management
- ❖ Situational Awareness
- ❖ Aviation Physiology



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**Stage I, Ground Lesson 1, continued...**

- ❖ Alcohol, Drugs, and Performance
- ❖ Fitness for Flight

**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.

**Study Assignment**

*Jeppesen Private Pilot Manual Chapter 2, Airplane Systems*

This Lesson	2.0 Hrs
Previous Lessons	0.0 Hrs
Total Hours	2.0 Hrs





**Stage I**  
**Ground Lesson 2**

**Text Reference:**

*Jeppesen Private Pilot Manual – Chapter 2, Airplane Systems*

**Recommended Sequence**

1. Lesson Introduction
2. Discussion

**Lesson Objectives**

- ❖ 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 power-plant and related systems.

**Content**

*Section A – Airplanes*

- ❖ *Fuselage*
- ❖ *Wings*
- ❖ *Empennage*
- ❖ *Landing Gear*
- ❖ *Engine/Propeller*
- ❖ *Pilot's Operating Handbook (POH)*

*Section B – The Power-plant and Related Systems*

- ❖ *Reciprocating Engine*
- ❖ *Induction Systems*
- ❖ *Supercharging and Turbocharging*
- ❖ *Ignition Systems*
- ❖ *Fuel Systems*
- ❖ *Refueling*
- ❖ *Oil Systems*
- ❖ *Cooling Systems*
- ❖ *Exhaust Systems*
- ❖ *Propellers*
- ❖ *Propeller Hazards*
- ❖ *Electrical Systems*

*Section C – Flight Instruments*

- ❖ *Pitot-Static Instruments*
- ❖ *Airspeed Indicator*
- ❖ *Altimeter*



**Stage I, Ground Lesson 2, continued...**

- ❖ *Vertical Speed Indicator*
- ❖ *Gyroscopic Compass*

**Completion Standards**

Demonstrate understanding during oral quizzing by instructor at completion of lesson. Student completes Chapter 2 questions for Section 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 3.

**Study Assignment**

*Jeppesen Private Pilot Manual Chapter 3, Aerodynamic Principles*

This Lesson	2.0 Hrs
Previous Lessons	2.0 Hrs
Total Hours	4.0 Hrs



**Stage I**  
**Ground Lesson 3**

**Text Reference:**

*Jeppesen Private Pilot Manual – Chapter 3, Aerodynamic Principles*

**Recommended Sequence**

1. Lesson Introduction
2. Discussion

**Lesson Objectives**

- ❖ 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.

**Content**

*Section A – Four Forces of Flight*

- ❖ *Lift*
- ❖ *Airfoils*
- ❖ *Pilot Control of Lift*
- ❖ *Weight*
- ❖ *Thrust*
- ❖ *Drag*
- ❖ *Ground Effect*

*Section B – Stability*

- ❖ *Three Axes of Flight*
- ❖ *Longitudinal Stability*
- ❖ *Center of Gravity Position*
- ❖ *Lateral Stability*
- ❖ *Directional Stability*
- ❖ *Stalls*
- ❖ *Spins*

*Section C – Aerodynamics of Maneuvering Flight*

- ❖ *Climbing Flight*
- ❖ *Left Turning Tendencies*
- ❖ *Descending Flight*
- ❖ *Turning Flight*
- ❖ *Load Factor*



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**Stage I, Ground Lesson 3, continued...**

**Completion Standards**

At the completion of this stage the student will demonstrate understanding during oral quizzing by the instructor and by completion of Chapter 3 questions for Section A, B, and C with a minimum passing score of 80%. The instructor will review incorrect answers to ensure complete student understanding prior to progression to Ground Lesson 4.

**Study Assignment**

*Jeppesen Private Pilot Manual Chapter 4, The Flight Environment*

This Lesson	2.0 Hrs
Previous Lessons	4.0 Hrs
Total Hours	6.0 Hrs



**Stage I**  
**Ground Lesson 4**

**Text Reference:**

*Jeppesen Private Pilot Manual – Chapter 4, The Flight Environment*

**Recommended Sequence**

1. Lesson Introduction
2. Discussion

**Lesson Objectives**

- ❖ Understanding important safety considerations, including collision avoidance precautions, right of way rules, and minimum safe altitudes.
- ❖ Become familiar with airport markings and lighting, aeronautical charts, and types of airspace.
- ❖ Learn about collision avoidance procedures and runway incursion avoidance.

**Content**

*Section A – Safety of Flight*

- ❖ *Collision Avoidance/Visual Scanning*
- ❖ *Airport Operations*
- ❖ *Right of Way Rules*
- ❖ *Minimum Safe Altitudes*
- ❖ *Taxiing in Wind*
- ❖ *Positive Exchange of Flight Controls*

*Section B – Airports*

- ❖ *Controlled and Uncontrolled*
- ❖ *Runway Layout*
- ❖ *Traffic Pattern*
- ❖ *Airport Visual Aids*
- ❖ *Taxiway Markings*
- ❖ *Ramp Area Hand Signals*
- ❖ *Runway Incursion Avoidance*
- ❖ *Land and Hold Short Operations (LAHSO)*
- ❖ *Airport Lighting*
- ❖ *Visual Glideslope Indicators*
- ❖ *Approach Light Systems*
- ❖ *Pilot Controlled Lighting*



**Stage I, Ground Lesson 4, continued...**

*Section C – Aeronautical Charts*

- ❖ *Latitude and Longitude*
- ❖ *Projections*
- ❖ *Sectional Charts*
- ❖ *World Aeronautical Charts*
- ❖ *Chart Symbolology*

*Section D – Airspace*

- ❖ *Classifications*
- ❖ *Uncontrolled Airspace*
- ❖ *Controlled Airspace*
- ❖ *Class E*
- ❖ *Class D*
- ❖ *Class C*
- ❖ *Class B*
- ❖ *Class A*
- ❖ *Special VFR*
- ❖ *Special Use Airspace*
- ❖ *Other Airspace Areas*
- ❖ *Emergency Air Traffic Rules*
- ❖ *Air Defense Identification Zones*

**Completion Standards**

At the completion of this stage the student will demonstrate understanding during oral quizzing by the instructor and will complete Chapter 4 questions for Sections A, B, C, and D with a minimum passing score of 80%. The instructor will review incorrect answers to ensure complete student understanding prior to progression to Ground Lesson 5.

**Study Assignment**

*Chapter 5, Communication and Flight Information*

This Lesson	2.0 Hrs
Previous Lessons	9.0 Hrs
Total Hours	8.0 Hrs



**Stage I**  
**Ground Lesson 5**

**Text Reference:**

*Jeppesen Private Pilot Manual – Chapter 5, Communication and Flight Information*

**Recommended Sequence**

1. Lesson Introduction
2. Discussion

**Lesson Objectives**

- ❖ Become familiar with radar, transponder operations, and FAA radar equipment and services for VFR aircraft.
- ❖ Understand the types of services provided by FSS.
- ❖ Learn how to use the radio for communications.
- ❖ Gain a basic understanding of the sources of flight information, particularly the Aeronautical Information Manual and FAA advisory circulars.

**Content**

*Section A – Radar and ATC Services*

- ❖ *Radar*
- ❖ *Transponder Operation*
- ❖ *FAA Radar Systems*
- ❖ *VFR Radar Services*
- ❖ *Automatic Terminal Information Service (ATIS)*
- ❖ *Flight Service Stations*
- ❖ *VHF Direction Finder Assistance*

*Section B – Radio Procedures*

- ❖ *VHF Communication Equipment*
- ❖ *Using the Radio*
- ❖ *Phonetic Alphabet*
- ❖ *Coordinated Universal Time*
- ❖ *Common Traffic Advisory Frequency (CTAF)*
- ❖ *ATC Facilities and Controlled Airports*
- ❖ *Lost Communication Procedures*
- ❖ *Emergency Procedures*
- ❖ *Emergency Locator Transmitters (ELT's)*



### Stage I, Ground Lesson 5, continued...

#### *Section C – Sources of Flight Information*

- ❖ *Airport Facility Directory*
- ❖ *Federal Aviation Regulations*
- ❖ *Aeronautical Information manual (AIM)*
- ❖ *Notices to Airmen (NOTAMs)*
- ❖ *Advisory Circulars*
- ❖ *Jeppesen Information Services*

#### **Completion Standards**

At the completion of this stage the student will demonstrate understanding during oral quizzing by the instructor. The student will complete Chapter 5 questions for Section A, B, and C with a minimum passing score of 80%. The instructor will review incorrect answers to ensure complete understanding prior to progression to the Stage Exam in Ground Lesson 6.

#### **Study Assignment**

*Jeppesen Private Pilot Manual – Review Chapters 2, 3, 4, and 5 in preparation for the Stage I Exam.*

This Lesson	2.0 Hrs
Previous Lessons	8.0 Hrs
Total Hours	10.0 Hrs





**Stage I**  
**Ground Lesson 6**  
**STAGE I EXAM**

**Text Reference:**

*Jeppesen Private Pilot Manual – Chapters 1 through 5*

**Recommended Sequence**

1. Lesson Introduction
2. Testing
3. Critique

**Lesson Objectives**

- ❖ Demonstrate comprehension of the material presented in Chapters 1 through 5 of the Private Pilot Manual.

**Content**

*Stage I Exam*

- ❖ *Airplane Systems*
- ❖ *Aerodynamic Principles*
- ❖ *The Flight Environment*
- ❖ *Communication and Flight Information*

**Completion Standards**

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

**Study Assignment**

*Jeppesen Private Pilot Manual –Chapter 6, Meteorology for Pilots.*

This Lesson	1.5 Hrs
Previous Lessons	10.0 Hrs
Total Hours	11.5 Hrs



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## **Stage II**

### **Ground Training**

#### **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 thoroughly familiar with FARs as they 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 score of 80%, and the instructor has reviewed each correct response to ensure complete understanding before the student progresses to Stage III.



**Stage II**  
**Ground Lesson 7**

**Text Reference:**

*Jeppesen Private Pilot Manual – Chapters 6, Meteorology for Pilots*

**Recommended Sequence**

1. Lesson Introduction
2. Discussion

**Lesson 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.

**Content**

*Section A – Basic Weather Theory*

- ❖ *The Atmosphere*
- ❖ *Atmospheric Circulation*
- ❖ *Atmospheric Pressure*
- ❖ *Coriolis Force*
- ❖ *Global Wind Patterns*
- ❖ *Local Wind Patterns*

*Section B – Weather Patterns*

- ❖ *Atmospheric Stability*
- ❖ *Temperature Inversions*
- ❖ *Moisture*
- ❖ *Humidity*
- ❖ *Dewpoint*
- ❖ *Clouds and Fog*
- ❖ *Precipitation*
- ❖ *Airmasses*
- ❖ *Fronts*

*Section C – Weather Hazards*

- ❖ *Thunderstorms*
- ❖ *Turbulence*
- ❖ *Wake Turbulence*



**Stage II, Ground Lesson 7, continued...**

- ❖ *Wind Shear*
- ❖ *Microburst*
- ❖ *Icing*
- ❖ *Restrictions to Visibility*
- ❖ *Volcanic Ash*

**Completion Standards**

At the completion of this lesson the student will demonstrate understanding during oral quizzing by the instructor and complete Chapter 6 questions for Section A, B, and C with a minimum passing score of 80%. The instructor will review incorrect answers to ensure complete student understanding prior to progression to Ground Lesson 8.

**Study Assignment**

*FAR/AIM – Private Pilot FARs*

This Lesson	2.0 Hrs
Previous Lessons	11.5 Hrs
Total Hours	13.5 Hrs



**Stage II**  
**Ground Lesson 8**

**Text Reference:**

*FAR/AIM – Private Pilot FARs*

**Recommended Sequence**

1. Lesson Introduction
2. Discussion

**Lesson 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.

**Content**

- ❖ *FAR Part 1*
- ❖ *FAR Part 61*
- ❖ *FAR Part 91*
- ❖ *NTSB 830*

**Completion Standards**

At the completion of this lesson the student will demonstrate understanding during oral quizzing by the instructor and complete Ground Lesson 8 Private Pilot FAR Exercises with a minimum passing score of 80%. The instructor will review incorrect answers to ensure complete student understanding prior to progression to Ground Lesson 9.

**Study Assignment**

*Jeppesen Private Pilot Manual- Chapter 7, Interpreting Weather Data*

This Lesson	2.0 Hrs
Previous Lessons	13.5 Hrs
Total Hours	15.5 Hrs



**Stage II**  
**Ground Lesson 9**

**Text Reference:**

*Jeppesen Private Pilot Manual – Chapter 7, Interpreting Weather Data*

**Recommended Sequence**

1. Lesson Introduction
2. Discussion

**Lesson 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.

**Content**

*Section A – The Forecasting Process*

- ❖ *Forecasting Methods*
- ❖ *Types of Forecasts*
- ❖ *Compiling and Processing Weather Data*
- ❖ *Forecasting Accuracy and Limitations*

*Section B – Printed Reports and Forecasts*

- ❖ *Aviation Routine Weather Report (METAR)*
- ❖ *Radar Weather Reports*
- ❖ *Pilot Weather Reports*
- ❖ *Terminal Aerodrome Forecast (TAF)*
- ❖ *Aviation Area Forecast*
- ❖ *Winds and Temperatures Aloft Forecasts*
- ❖ *Severe Weather Reports and Forecasts*
- ❖ *AIRMET/SIGMET/Convective SIGMET*

*Section C – Graphic Weather Products*

- ❖ *Surface Analysis Chart*
- ❖ *Weather Depiction Chart*
- ❖ *Radar Summary Chart*
- ❖ *Satellite Weather Pictures*
- ❖ *Low-Level Significant Weather Prog*
- ❖ *Convective Outlook Chart*
- ❖ *Forecast Winds and Temperature Aloft Chart*
- ❖ *Volcanic Ash Forecast and Dispersion Chart*



**Stage II, Ground Lesson 9, continued...**

*Section D – Sources of Weather Information*

- ❖ *Preflight Weather Sources*
- ❖ *In-Flight Weather Sources*
- ❖ *En-route Flight Advisory Service*
- ❖ *Weather Radar Services*
- ❖ *Automated Weather Reporting Systems*

**Completion Standards**

At the completion of this lesson the student will demonstrate understanding during oral quizzing by the instructor and complete Ground Chapter 7 questions for Sections A, B, C, and D with a minimum passing score of 80%. The instructor will review incorrect answers to ensure complete student understanding prior to progression to Stage II Exam.

**Study Assignment**

*Jeppesen Private Pilot Manual – Review Chapters 6 and 7, and the FAR/AIM in preparation for the Pre-solo and Stage II Exam.*

This Lesson	2.0 Hrs
Previous Lessons	15.5 Hrs
Total Hours	17.5 Hrs

***Note: A pre-solo exam and pilot briefing must be completed prior to flight lesson 9. This exam and briefing should last 1.0 hours in length. This exam and briefing will count towards ground training requirements.***

This Lesson	1.0 Hrs
Previous Lessons	17.5 Hrs
Total Hours	18.5 Hrs



**Stage II**  
**Ground Lesson 10**  
**STAGE II EXAM**

**Text Reference:**

*Jeppesen Private Pilot Manual – Chapters 6 and 7, FAR/AIM – Private Pilot FARs*

**Recommended Sequence**

1. Lesson Introduction
2. Testing
3. Critique

**Lesson 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..

**Content**

*Stage II Exam*

- ❖ *Meteorology for Pilots*
- ❖ *Federal Aviation Regulations*
- ❖ *Interpreting Weather Data*

**Completion Standards**

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

**Study Assignment**

*Jeppesen Private Pilot Manual – Chapter 8, Airplane Performance.*

This Lesson	1.5 Hrs
Previous Lessons	18.5 Hrs
Total Hours	20.0 Hrs





### **Stage III**

#### **Ground Training**

##### **Stage 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 score of 80%, and the instructor has reviewed each correct response to ensure complete understanding.



**Stage III**  
**Ground Lesson 11**

**Text Reference:**

*Jeppesen Private Pilot Manual – Chapter 8, Airplane Performance*

**Recommended Sequence**

1. Lesson Introduction
2. Discussion

**Lesson 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 the basic functions of aviation computers.
- ❖ Understand the effects of density altitude on takeoff and climb performance.

**Content**

*Section A – Predicting Performance*

- ❖ *Aircraft Performance and Design*
- ❖ *Chart Presentations*
- ❖ *Factors Affecting Performance*
- ❖ *Takeoff and Landing Performance*
- ❖ *Climb Performance*
- ❖ *Cruise Performance*
- ❖ *Using Performance Charts*

*Section B – Weight and Balance*

- ❖ *Importance of Weight*
- ❖ *Importance of Balance*
- ❖ *Terminology*
- ❖ *Principles of Weight and Balance*
- ❖ *Computation Method*
- ❖ *Table Method*
- ❖ *Graph Method*
- ❖ *Weight-Shift Formula*
- ❖ *Effects of Operating at High Total Weights*
- ❖ *Flights at Various CG Positions*

*Section C – Flight Computers*

- ❖ *Mechanical Flight Computers*



**Stage III, Ground Lesson 11, continued...**

- ❖ *Time, Speed, and Distance*
- ❖ *Airspeed and Density Altitude Computations*
- ❖ *Wind Problems*
- ❖ *Conversions*
- ❖ *Multi-Part Problems*
- ❖ *Electronic Flight Computers*
- ❖ *Modes and Basic Operations*

**Completion Standards**

At the completion of this lesson the student will demonstrate understanding during oral quizzing by the instructor and complete Ground Chapter 8 questions for Sections A, B, and C with a minimum passing score of 80%. The instructor will review incorrect answers to ensure complete student understanding prior to progression to Ground Lesson 12.

**Study Assignment**

*Jeppesen Private Pilot Manual – Chapter 9, Navigation*

This Lesson	2.0 Hrs
Previous Lessons	20.0 Hrs
Total Hours	22.0 Hrs



**Stage III**  
**Ground Lesson 12**

**Text Reference:**

*Jeppesen Private Pilot Manual – Chapter 9, Navigation*

**Recommended Sequence**

1. Lesson Introduction
2. Discussion

**Lesson 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 Flight Plan, VFR cruising altitudes, and lost procedures.
- ❖ Gain a basic understanding of VFR navigation using pilotage, dead reckoning, and navigation systems.

**Content**

*Section A – Pilotage and Dead Reckoning*

- ❖ *Pilotage*
- ❖ *Dead Reckoning*
- ❖ *Flight Planning*
- ❖ *VFR Cruising Altitudes*
- ❖ *Flight Plan*
- ❖ *Lost Procedures*

*Section B – VOR Navigation*

- ❖ *VOR Operations*
- ❖ *Ground and Airborne Equipment*
- ❖ *Basic Procedures*
- ❖ *VOR Orientation and Navigation*
- ❖ *VOR Checkpoints and Test Signals*
- ❖ *Horizontal Situation Indicator*
- ❖ *Distance Measuring Equipment (DME)*

*Section C – ADF Navigation*

- ❖ *ADF Equipment*
- ❖ *Orientation*
- ❖ *Homing*
- ❖ *ADF Intercepts and Tracking*
- ❖ *Moveable Card Indicators*



**Stage III, Ground Lesson 12, continued...**

- ❖ *Radio Magnetic Indicator*
- ❖ *ADF Precaution*

*Section D – Advanced Navigation*

- ❖ *VORTAC-Based Area Navigation*
- ❖ *Long Range Navigation*
- ❖ *Inertial Navigation System*
- ❖ *Global Positioning System*

**Completion Standards**

At the completion of this lesson the student will demonstrate understanding during oral quizzing by the instructor and complete Ground Chapter 9 questions for Sections A, B, C and D with a minimum passing score of 80%. The instructor will review incorrect answers to ensure complete student understanding prior to progression to Ground Lesson 13.

**Study Assignment**

*Jeppesen Private Pilot Manual – Chapter 10, Applying Human Factors Principles*

This Lesson	2.0 Hrs
Previous Lessons	22.0 Hrs
Total Hours	24.0 Hrs



**Stage III**  
**Ground Lesson 13**

**Text Reference:**

*Jeppesen Private Pilot Manual – Chapter 10, Applying Human Factors Principles*

**Recommended Sequence**

1. Lesson Introduction
2. Discussion

**Lesson 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.

**Content**

*Section A – Aviation Physiology*

- ❖ *Vision in Flight*
- ❖ *Night Vision*
- ❖ *Visual Illusions*
- ❖ *Disorientation*
- ❖ *Respiration*
- ❖ *Hypoxia*
- ❖ *Hyperventilation*

*Section B – Aeronautical Decision Making*

- ❖ *Applying the decision Making Process*
- ❖ *Pilot-in-Command Responsibility*
- ❖ *Communication*
- ❖ *Workload Management*
- ❖ *Situational Awareness*
- ❖ *Resource Use*
- ❖ *Applying Human Factors Training*

**Completion Standards**

At the completion of this lesson the student will demonstrate understanding during oral quizzing by the instructor and complete Ground Chapter 10 questions for Sections A and B with a minimum passing score of 80%. The instructor will review incorrect answers to ensure complete student understanding prior to progression to Ground Lesson 14.



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**Stage III, Ground Lesson 13, continued**

**Study Assignment**

*Jeppesen Private Pilot Manual – Chapter 11, Flying Cross Country*

This Lesson	2.0 Hrs
Previous Lessons	24.0 Hrs
Total Hours	26.0 Hrs



**Stage III**  
**Ground Lesson 14**

**Text Reference:**

*Jeppesen Private Pilot Manual – Chapter 11, Flying Cross Country*

**Recommended Sequence**

1. Lesson Introduction
2. Discussion

**Lesson 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.

**Content**

*Section A – The Flight Planning Process*

- ❖ *Developing the Route*
- ❖ *Preflight Weather Briefing*
- ❖ *Completing the Navigation Log*
- ❖ *Flight Plan*
- ❖ *Preflight Inspection*

*Section B – The Flight*

- ❖ *Departure*
- ❖ *Centennial Airport to Pueblo Memorial Airport*
- ❖ *Pueblo Memorial Airport to La Junta Municipal Airport*
- ❖ *La Junta Municipal Airport to Centennial Airport*
- ❖ *Diversion to Limon Municipal Airport*
- ❖ *Return to Centennial Airport*

**Completion Standards**

At the completion of this lesson the student will demonstrate understanding during oral quizzing by the instructor and complete Ground Chapter 11 questions for Sections A and B with a minimum passing score of 80%. The instructor will review incorrect answers to ensure complete student understanding prior to progression to Stage III Exam.





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**Stage III, Ground Lesson 14, continued...**

**Study Assignment**

*Jeppesen Private Pilot Manual – Chapters 8 through 11, in preparation for the Stage III Exam.*

This Lesson	2.0 Hrs
Previous Lessons	26.0 Hrs
Total Hours	28.0 Hrs



**Stage III**  
**Ground Lesson 15**  
**STAGE III EXAM**

**Text Reference:**

*Jeppesen Private Pilot Manual – Chapter 8 through 11*

**Recommended Sequence**

1. Lesson Introduction
2. Testing
3. Critique

**Lesson Objectives**

- ❖ Demonstrate comprehension of the material presented in Chapters 8 through 11 of the Private Pilot Manual.

**Content**

*Stage III Exam*

- ❖ *Airplane Performance*
- ❖ *Navigation*
- ❖ *Human Factors Principles*
- ❖ *Aeronautical Decision Making*
- ❖ *Flying Cross-Country*

**Completion 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 answer to ensure complete understanding before the student progresses to the course final exams.

**Study Assignment**

*Jeppesen Private Pilot Manual – Review the entire manual, as necessary, in preparation for Private Pilot Final Exam “A”.*

This Lesson	1.5 Hrs
Previous Lessons	28.0 Hrs
Total Hours	29.5 Hrs



**Stage III**  
**Ground Lesson 16**  
**END OF COURSE FINAL EXAM “A”**

**Text Reference:**

*Jeppesen Private Pilot Manual – Chapter 1 through 11*

**Recommended Sequence**

1. Lesson Introduction
2. Testing
3. Critique

**Lesson Objectives**

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

**Content**

*Private Pilot End of Course Final Exam*

**Completion Standards**

Each student must complete the Private Pilot End of Course Final Exam with a minimum passing score of 80%, and the instructor should review each incorrect answer to ensure complete understanding before the student progresses to the Private Pilot End of Course Final Exam “B”.

**Study Assignment**

*Jeppesen Private Pilot Manual – Review any deficient subject areas based on the results of End of Course Final Exam “A”. Review in preparation for End of Course Final Exam “B”.*

This Lesson	2.0 Hrs
Previous Lessons	29.5 Hrs
Total Hours	31.5 Hrs



**Stage III**  
**Ground Lesson 17**  
**END OF COURSE FINAL EXAM “B”**

**Text Reference:**

*Jeppesen Private Pilot Manual – Chapter 1 through 11*

**Recommended Sequence**

1. Lesson Introduction
2. Testing
3. Critique

**Lesson Objectives**

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

**Content**

*Private Pilot End of Course Final Exam B*

**Completion Standards**

Each student must complete the Private Pilot End of Course Final Exam with a minimum passing score of 80%, and the instructor should review each incorrect answer to ensure complete understanding.

**Study Assignment**

*Jeppesen Private Pilot Manual – Review any deficient subject areas based on the results of End of Course Final Exam “B”. Review in preparation for FAA Private Pilot Airmen Knowledge Test.*

This Lesson	2.0 Hrs
Previous Lessons	31.5 Hrs
Total Hours	33.5 Hrs

***Note: A solo cross-country student pilot briefing must be completed prior to flight lesson 19. This briefing should last a minimum of 1.5 hours in length. This exam and briefing will count towards ground training requirements.***

This Lesson	1.5 Hrs
Previous Lessons	33.5 Hrs
Total Hours	35.0 Hrs



## **Flight Training Course Outline**

**35 Hours**



## **Flight Training 35 Hours**

### **Ground 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 single-engine land class rating have been met.

### **Ground Training Completion Standards**

The student will demonstrate through flight tests and school records maintained by Twin Cities Flight Training, Inc. that s/he meets the necessary aeronautical skill and experience requirements to obtain a private pilot certificate with an airplane category rating and single-engine land class rating.

### **Initial Certification**

Initial Certification Students

Flight training shall be accomplished in three (3) stages. Each of these instructional stages is described in the succeeding pages of this syllabus.

This course should be conducted concurrently with the Ground training syllabus for initial certification students.



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**Stage I**

**Flight Training**

**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 also will 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 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.



## **Stage I**

### **Flight Lesson 1**

**(Dual – Local .5)**

#### **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 altitudes.
- ❖ Gain an understanding of preflight preparation and procedures.

#### **Preflight Discussion**

- ❖ Fitness for Flight
- ❖ Positive Exchange of Flight Controls
- ❖ Certificates and Documents
- ❖ Airworthiness Requirements
- ❖ Airplane Logbooks
- ❖ Airplane Servicing
- ❖ Fuel Grades

#### **Introduce**

- ❖ Use of Checklists
- ❖ Preflight Inspection
- ❖ Certificates and Documents
- ❖ Airworthiness Requirements
- ❖ Airplane Servicing
- ❖ Operation of Systems
- ❖ Equipment Checks
- ❖ Location of First Aid Kit
- ❖ Location of Fire Extinguisher
- ❖ Engine Starting
- ❖ Radio Communications
- ❖ Positive Exchange of Flight Controls
- ❖ Taxiing
- ❖ Before Takeoff Check
- ❖ Before Takeoff and Climb
- ❖ Straight-and-Level Flight
- ❖ Climbs, Descents, and Level Offs
- ❖ Medium Banked Turns in Both Directions
- ❖ Normal Approach and Landing
- ❖ After Landing, Parking, and Securing





**Stage I, Flight Lesson 1, continued...**

**Postflight Discussion and Preview of Next Lesson**

**Completion Standards**

The student will display basic knowledge of aircraft systems and the necessity of checking their operation before flight. The student will become familiar with the control systems and how they are used to maneuver the airplane on the ground and in the air.

**Study Assignment**

*Jeppesen Private Pilot Maneuvers – Ground Operations and Basic Maneuvers*

	Dual				Solo	
	Local	X-Country	Night	Instrument	Day	X-Country
<b>This Lesson</b>	0.5 Hrs					
<b>Previous</b>	0.0 Hrs					
<b>Total</b>	0.5 Hrs					



**Stage I**  
**Flight Lesson 2**  
**(Dual – Local 1.0)**

**Lesson References**

*Jeppesen Private Pilot Maneuvers – Ground Operations and Basic Maneuvers*

**Lesson 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.

**Preflight Discussion**

- ❖ Human Factors Concepts
- ❖ Preflight Activities
- ❖ Engine Starting
- ❖ Airport, Runway, and Taxiway Signs, Markings, and Lighting
- ❖ Ground Operations, including Crosswind Taxiing
- ❖ Collision Avoidance Precautions
- ❖ Airspeed and Configuration Changes

**Introduce**

- ❖ Airport, Runway, and Taxiway Signs, Markings, and Lighting
- ❖ Crosswind Taxi
- ❖ Collision Avoidance Precautions
- ❖ Airspeed and Configuration Changes
- ❖ Flight at Approach Airspeed
- ❖ Traffic Patterns
- ❖ Descents in High and Low Drag Configurations

**Review**

- ❖ Preflight Inspection
- ❖ Certificates and Documents
- ❖ Airworthiness Requirements
- ❖ Operation of Systems
- ❖ Positive Exchange of Flight Controls
- ❖ Use of Checklists
- ❖ Engine Starting
- ❖ Radio Communications
- ❖ Taxiing
- ❖ Before Takeoff Check



**Stage I, Flight Lesson 2, continued...**

- ❖ Normal Takeoff and Climb
- ❖ Straight-and-Level Flight (VR)
- ❖ Climbs (VR)
- ❖ Descents (VR)
- ❖ Medium Banked Turns in Both Directions (VR)
- ❖ Normal Approach and Landing
- ❖ After Landing, Parking, and Securing
- ❖ Airplane Servicing

**Postflight Discussion and Preview of Next Lesson**

**Completion Standards**

The student will display increased proficiency in preflight activities, ground operations, and coordinated airplane attitude control. The student will perform takeoffs with instructor assistance, be familiar with control usage necessary to maintain altitude within +/- 250 feet during airspeed and configuration changes and exhibit understanding of attitude control by visual reference (VR).

**Study Assignment**

*Jeppesen Private Pilot Maneuvers – Flight Maneuvers*

	Dual				Solo	
	Local	X-Country	Night	Instrument	Day	X-Country
<b>This Lesson</b>	1.0 Hrs					
<b>Previous</b>	0.5 Hrs					
<b>Total</b>	1.5 Hrs					



**Stage I**  
**Flight Lesson 3**  
**(Dual – Local 1.0)**

*Note: A view limiting device is required for the .2 hour of dual instrument time allotted to Flight Lesson 3.*

**Lesson References**

*Jeppesen Private Pilot Maneuvers – Flight Maneuvers*

**Lesson 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.

**Preflight Discussion**

- ❖ Situational Awareness
- ❖ Basic Instrument Maneuvers
- ❖ Preflight Planning, Operation of Powerplant, Aircraft Systems, and Engine Run-up Procedures

**Introduce**

- ❖ Flight at Various Airspeeds from Cruise to Slow Flight
- ❖ Maneuvering During Slow Flight
- ❖ Power-off Stalls
- ❖ Power-on Stalls
- ❖ Straight and Level Flight (IR)
- ❖ Constant Airspeed Climbs (IR)
- ❖ Constant Airspeed Descents (IR)

**Review**

- ❖ Use of Checklists
- ❖ Airplane Servicing
- ❖ Preflight Inspection
- ❖ Airworthiness Requirements
- ❖ Engine Starting
- ❖ Radio Communications
- ❖ Before Takeoff Check
- ❖ Normal Takeoff and Climb
- ❖ Traffic Patterns



**Stage I, Flight Lesson 3, continued...**

- ❖ Collision Avoidance Precautions
- ❖ Airspeed and Configuration Changes
- ❖ Descents in High and Low Drag Configurations
- ❖ Flight at Approach Airspeed
- ❖ Normal Approach and Landing
- ❖ Airport, Runway, and Taxiway Signs, Markings, and Lighting
- ❖ Parking and Securing the Airplane

**Postflight Discussion and Preview of Next Lesson**

**Completion Standards**

The student will display increased proficiency in coordinated airplane attitude control during basic maneuvers, perform unassisted takeoffs, demonstrate correct communications and traffic pattern procedures, maintain altitude within +/- 250 feet during airspeed transitions and while maneuvering at slow airspeeds, indicate basic ability to control attitude by instrument reference, and land with instructor assistance.

**Study Assignment**

*Jeppesen Private Pilot Maneuvers – Flight Maneuvers and Emergency Landing Procedures*

	Dual				Solo	
	Local	X-Country	Night	Instrument	Day	X-Country
<b>This Lesson</b>	1.0 Hrs			(0.2) Hrs		
<b>Previous</b>	1.5 Hrs			(0.0) Hrs		
<b>Total</b>	2.5 Hrs			(0.2) Hrs		



## **Stage I**

### **Flight Lesson 4**

#### **(Dual – Local 1.0)**

*Note: A view limiting device is required for the .2 hour of dual instrument time allotted to Flight Lesson 4.*

#### **Lesson References**

*Jeppesen Private Pilot Maneuvers – Flight Maneuvers and Emergency Landing Procedures*

#### **Lesson 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.

#### **Preflight Discussion**

- ❖ Wake Turbulence Avoidance
- ❖ Workload Management
- ❖ Pilot-in-Command Responsibilities
- ❖ Emergency Procedures and Equipment Malfunctions
- ❖ Emergency Field Selection

#### **Introduce**

- ❖ Systems and Equipment Malfunctions
- ❖ Emergency Procedures
- ❖ Emergency Approach and Landing (Simulated)
- ❖ Emergency Equipment and Survival Gear
- ❖ Climbing and Descending Turns (VR)(IR)
- ❖ Steep Turns
- ❖ Turns to Headings (VR)(IR)
- ❖ Flight at Slow Airspeeds with Realistic Distractions, and the Recognition and Recovery from Stalls Entered from Straight Flight and from Turns
- ❖ Spin Awareness
- ❖ Demonstrated Stalls (Secondary, Accelerated, Crossed-Control, and Elevator Trim)



**Stage I, Flight Lesson 4, continued...**

*Note: The demonstrated stalls are not a proficiency requirement for private pilot certification. The purpose of the demonstrations is to help the student learn how to recognize, prevent, and if necessary, recover before the stall develops into a spin. These stalls should not be practiced without a qualified flight instructor. In addition some stalls may be prohibited in some airplanes.*

**Review**

- ❖ Airport, Runway, and Taxiway Signs, Markings, and Lighting
- ❖ Airspeed and Configuration Changes
- ❖ Flight at Approach Speed
- ❖ Flight at Various Airspeeds from Cruise to Slow Flight
- ❖ Maneuvering During Slow Flight
- ❖ Power-Off Stalls
- ❖ Power-On Stalls
- ❖ Normal Takeoffs and Landings
- ❖ Collision Avoidance Precautions
- ❖ Traffic Patterns

**Postflight Discussion and Preview of Next Lesson**

**Completion Standards**

The student will display increased proficiency in coordinated airplane attitude control during basic maneuvers, perform unassisted takeoffs, demonstrate correct communications and traffic pattern procedures, demonstrate basic understanding of steep turns, slow flight, stalls, stall recovery, and emergency operations, indicate basic understanding of airplane control by use of flight instruments, and land with instructor assistance.

**Study Assignment**

*Jeppesen Private Pilot Maneuvers – Ground Reference Maneuvers*

	Dual				Solo	
	Local	X-Country	Night	Instrument	Day	X-Country
<b>This Lesson</b>	1.0 Hrs			(0.2) Hrs		
<b>Previous</b>	2.5 Hrs			(0.2) Hrs		
<b>Total</b>	3.5 Hrs			(0.4) Hrs		



## **Stage I**

### **Flight Lesson 5**

#### **(Dual – Local 1.0)**

*Note: A view limiting device is required for the .2 hours of dual instrument time allocated to Flight Lesson 5.*

### **Lesson References**

*Jeppesen Private Pilot Maneuvers – Ground Reference Maneuvers*

### **Lesson 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.

### **Preflight Discussion**

- ❖ Situational Awareness
- ❖ Realistic Distractions
- ❖ Determining Wind Direction

### **Introduce**

- ❖ Rectangular Courses
- ❖ S-Turns
- ❖ Turns Around a Point
- ❖ Maneuvering During Slow Flight

### **Review**

- ❖ Positive Exchange of Flight Controls
- ❖ Maneuvering During Slow Flight (VR)
- ❖ Power-off Stalls
- ❖ Power-on Stalls
- ❖ Flight at Slow Airspeeds with Realistic Distractions, and the Recognition and Recovery from Stalls Entered from Straight Flight and from Turns
- ❖ Spin Awareness
- ❖ Emergency Approach and Landing (Simulated)
- ❖ Emergency Equipment and Survival Gear
- ❖ Normal Takeoffs and Landings
- ❖ Turns to Headings (VR)
- ❖ Turns to Headings (IR)

### **Postflight Discussion and Preview of Next Lesson**





**Stage I, Flight Lesson 5, continued...**

**Completion Standards**

The student will display increased proficiency in coordinated airplane attitude control during basic maneuvers, perform unassisted takeoffs, demonstrate correct communications and traffic pattern procedures, maintain altitude within +/- 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 and simulated emergency landing procedures, and land with a minimum of instructor assistance.

**Study Assignment**

*Jeppesen Private Pilot Maneuvers – Airport Operations*

	Dual				Solo	
	Local	X-Country	Night	Instrument	Day	X-Country
<b>This Lesson</b>	1.0 Hrs			(0.2) Hrs		
<b>Previous</b>	3.5 Hrs			(0.4) Hrs		
<b>Total</b>	4.5 Hrs			(0.6) Hrs		



**Stage I**  
**Flight Lesson 6**  
**(Dual – Local 1.0)**

**Lesson References**

*Jeppesen Private Pilot Maneuvers – Airport Operations*

**Lesson Objectives**

- ❖ Practice and 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.

**Preflight Discussion**

- ❖ Communication
- ❖ Workload Management
- ❖ Lost Communication Procedures
- ❖ Runway Incursion Avoidance
- ❖ Land and Hold Short Operations (LAHSO)

**Introduce**

- ❖ Go-Around/Rejected Landing
- ❖ Forward Slips to Landing
- ❖ Crosswind Takeoff and Climb
- ❖ Crosswind Approach and Landing
- ❖ ATC Light Signals
- ❖ Runway Incursion Avoidance
- ❖ Land and Hold Short Operations (LAHSO)

**Review**

- ❖ Rectangular Courses
- ❖ S-Turns
- ❖ Turns Around a Point
- ❖ Normal Takeoffs and Landings
- ❖ Traffic Patterns
- ❖ Wake Turbulence Avoidance
- ❖ Emergency Approach and Landing (Simulated)

**Postflight Discussion and Preview of Next Lesson**



**Stage I, Flight Lesson 6, continued...**

**Completion Standards**

The student will 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, and indicate knowledge of crosswind takeoff/landing procedures and go-arounds.

**Study Assignment**

*Jeppesen Private Pilot Maneuvers – References for Flight Lessons 1-6*

	Dual				Solo	
	Local	X-Country	Night	Instrument	Day	X-Country
<b>This Lesson</b>	1.0 Hrs			(0.0) Hrs		
<b>Previous</b>	4.5 Hrs			(0.6) Hrs		
<b>Total</b>	5.5 Hrs			(0.6) Hrs		



## Stage I

### Flight Lesson 7

#### (Dual – Local 1.0)

*Note: A view limiting device is required for the .2 hour of dual instrument time allotted to Flight Lesson 7.*

### Lesson References

*Jeppesen Private Pilot Maneuvers – References for Flight Lessons 1-6*

### Lesson Objectives

- ❖ Practice instrument flight maneuvers, takeoffs, landings, and emergency procedures in preparation for solo flight.
- ❖ Review those maneuvers and procedures that appear difficult for the student.
- ❖ Emphasis on ground reference maneuvers and emergency operations.

### Preflight Discussion

- ❖ Sections of FAR Parts 61 and 91 applicable to private pilots.
- ❖ Airspace Rules and Procedures for the airport where solo flight will be performed.
- ❖ Flight characteristics and operational limitations for the make and model of aircraft to be flown in solo flight.

### Review

- ❖ Straight-and-Level Flight (VR-IR)
- ❖ Steep Turns
- ❖ Constant Airspeed Climbs (VR-IR)
- ❖ Constant Airspeed Descents (VR-IR)
- ❖ Climbing and Descending Turns
- ❖ Turns to a Heading (IR)
- ❖ Rectangular Courses
- ❖ S-Turns
- ❖ Turns Around a Point
- ❖ Crosswind Takeoff and Climb
- ❖ Crosswind Approach and Landing
- ❖ Runway Incursion Avoidance
- ❖ Land and Hold Short Operations (LAHSO)
- ❖ Go-Around/Rejected Landing
- ❖ Forward Slips to a Landing
- ❖ Systems and Equipment Malfunctions
- ❖ Emergency Procedures
- ❖ Emergency Approach and Landing (Simulated)
- ❖ ATC Light Signals



**Stage I, Flight Lesson 7, continued...**

**Postflight Discussion and Preview of Next Lesson**

**Completion Standards**

The student will display increased proficiency and skill in instrument scan and interpretation during practice of instrument flight maneuvers, takeoffs, landings, and go-arounds should be performed without instructor assistance, emergency procedures should be accomplished with minimal assistance, and ground reference maneuvers should indicate increasing proficiency and precision.

**Study Assignment**

*Prepare for Presolo Written Exam and Briefing. The student will be provided with the exam questions in advance.*

	Dual				Solo	
	Local	X-Country	Night	Instrument	Day	X-Country
<b>This Lesson</b>	1.0 Hrs			(0.2) Hrs		
<b>Previous</b>	5.5 Hrs			(0.6) Hrs		
<b>Total</b>	6.5 Hrs			(0.8) Hrs		



**Stage I**  
**Flight Lesson 8**  
**(Dual – Local 1.0)**

*Note: A view-limiting device is required for the .2 hours of dual instrument time allocated to Flight Lesson 8.*

**Lesson 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 first solo flight.

**Preflight Discussion**

- ❖ Presolo Written Exam Critique
- ❖ Presolo Flight Training Requirements

**Review**

- ❖ Operation of Systems
- ❖ Preflight Inspection
- ❖ Engine Starting
- ❖ Radio Communication
- ❖ Normal and/or Crosswind Taxiing
- ❖ Before Takeoff Check
- ❖ Normal and/or Crosswind Takeoff
- ❖ Climbing and Descending Turns
- ❖ Collision Avoidance Precautions
- ❖ Wake Turbulence Avoidance
- ❖ Straight-and-Level Flight (IR)
- ❖ Turns to Headings (IR)
- ❖ Maneuvering During Slow Flight (IR)
- ❖ Power-off Stalls
- ❖ Power-on Stalls
- ❖ Maneuvering During Slow Flight
- ❖ Flight at Slow Airspeeds with Realistic Distractions, and the Recognition and Recovery from Stalls Entered from Straight Flight and from Turns.
- ❖ Spin Awareness
- ❖ Steep Turns
- ❖ Rectangular Course
- ❖ S-Turns



**Stage I, Flight Lesson 8, continued...**

- ❖ Turns Around a Point
- ❖ Systems and Equipment Malfunctions
- ❖ Emergency Procedures
- ❖ Emergency Approach and Landing (Simulated)
- ❖ Traffic Patterns
- ❖ Forward Slips to Landing
- ❖ Go-Around/Rejected Landing
- ❖ Normal and/or Crosswind Approach and Landing

**Postflight Discussion and Preview of Next Lesson**

**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 answer to ensure complete student understanding. The student should demonstrate the ability and readiness for supervised solo flight in the traffic pattern, exhibit understanding of attitude instrument flying, and indicate good understanding of local airport and airspace rules as well as systems and equipment malfunctions and related emergency procedures.

**Study Assignment**

*Review any deficient areas based on the results of the Presolo Written Exam. Review Private Pilot Maneuvers as requires or as assigned by the instructor.*

	Dual				Solo	
	Local	X-Country	Night	Instrument	Day	X-Country
<b>This Lesson</b>	1.0 Hrs			(0.2) Hrs		
<b>Previous</b>	6.5 Hrs			(0.8) Hrs		
<b>Total</b>	7.5 Hrs			(1.0) Hrs		



## **Stage I**

### **Flight Lesson 9**

**(Dual – Local .5)**

**(Solo – Local .5)**

#### **Lesson 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.

#### **Preflight Discussion**

- ❖ Any student questions
- ❖ Student pilot supervised solo flight operations in the local traffic pattern

#### **Review**

- ❖ Engine Starting
- ❖ Radio Communications
- ❖ Normal and/or Crosswind Taxiing
- ❖ Before Takeoff Check
- ❖ Normal Takeoffs
- ❖ Traffic Patterns
- ❖ Go-Around/Rejected Landing
- ❖ Normal Landings

#### **Introduce**

##### **Supervised Solo**

- ❖ Radio Communications
- ❖ Taxiing
- ❖ Before Takeoff Check
- ❖ Normal Takeoffs and Climbs (3)
- ❖ Traffic Patterns
- ❖ Normal Approaches and Landings (3)
- ❖ After Landing, Parking, and Securing

#### **Postflight Discussion and Preview of Next Lesson**





**Stage I, Flight Lesson 9, continued...**

**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.

**Study Assignment**

*Review as required in preparation for the Stage I Check in Flight Lesson 10.*

	Dual				Solo	
	Local	X-Country	Night	Instrument	Day	X-Country
<b>This Lesson</b>	0.5 Hrs			(0.0) Hrs	0.5 Hrs	
<b>Previous</b>	7.5 Hrs			(1.0) Hrs	0.0 Hrs	
<b>Total</b>	8.0 Hrs			(1.0) Hrs	0.5 Hrs	



## **Stage I**

### **Flight Lesson 10**

#### **Stage I Check**

#### **(Dual – Local 1.0)**

#### **Lesson Objectives**

- ❖ The chief instructor, assistant chief instructor, or the designated check instructor will evaluate the student's proficiency to determine if s/he 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.

#### **Preflight Discussion**

- ❖ Maneuvers
- ❖ Procedures
- ❖ Acceptable Performance Criteria
- ❖ Applicable Rules

#### **Review**

- ❖ Operation of Systems
- ❖ Airworthiness Requirements
- ❖ Engine Starting
- ❖ Radio Communication
- ❖ Taxiing
- ❖ Before Takeoff Check
- ❖ Normal and/or Crosswind Takeoff and Climb
- ❖ Collision Avoidance Precautions
- ❖ Wake Turbulence Avoidance
- ❖ Maneuvering During Slow Flight
- ❖ Power-off Stalls
- ❖ Power-on Stalls
- ❖ Flight at Slow Airspeeds with Realistic Distractions, and the Recognition and Recovery from Stalls Entered from Straight Flight and from Turns.
- ❖ Spin Awareness
- ❖ Systems and Equipment Malfunctions
- ❖ Emergency Approach and Landing (Simulated)
- ❖ Traffic Patterns
- ❖ Normal and/or Crosswind Approach and Landing

#### **Postflight Discussion and Preview of Next Lesson**



**Stage I, Flight Lesson 10, continued...**

**Completion Standards**

This lesson and stage is 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 the student meets the standards for advancing to Stage II.

**Study Assignment**

*Jeppesen Private Pilot Maneuvers – Performance Takeoffs and Landings*

	Dual				Solo	
	Local	X-Country	Night	Instrument	Day	X-Country
<b>This Lesson</b>	1.0 Hrs			(0.0) Hrs	0.0 Hrs	
<b>Previous</b>	8.0 Hrs			(1.0) Hrs	0.5 Hrs	
<b>Total</b>	9.0 Hrs			(1.0) Hrs	0.5 Hrs	



## **Stage II**

### **Flight Training**

#### **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.



**Stage II**  
**Flight Lesson 11**  
**(Dual – Local 1.0)**

**Lesson References**

*Jeppesen Private Pilot Maneuvers – Performance Takeoffs and Landings*

**Lesson 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.

**Preflight Discussion**

- ❖ Weight and Balance Computations
- ❖ Performance Estimates
- ❖ Effects of High Density Altitude
- ❖ Pilot-in-Command Responsibility

**Introduce**

- ❖ Low-Level Wind Shear Precautions
- ❖ Short-Field Takeoff and Maximum Performance Climb
- ❖ Soft-Field Takeoff and Climb
- ❖ Short-Field Approach and Landing
- ❖ Soft-Field Approach and Landing

**Review**

- ❖ Rectangular Courses
- ❖ Turns Around a Point
- ❖ S-Turns
- ❖ Maneuvering During Slow Flight
- ❖ Flight at Slow Airspeeds with Realistic Distractions, and the Recognition and Recovery from Stalls Entered from Straight Flight and from Turns

**Postflight Discussion and Preview of Next Lesson**



**Stage II, Flight Lesson 11, continued...**

**Completion Standards**

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

**Study Assignment**

*Review, as required, in preparation for Flight Lesson 12, which is the second supervised solo in the traffic pattern.*

	Dual				Solo	
	Local	X-Country	Night	Instrument	Day	X-Country
<b>This Lesson</b>	1.0 Hrs			(0.0) Hrs	0.0 Hrs	
<b>Previous</b>	9.0 Hrs			(1.0) Hrs	0.5 Hrs	
<b>Total</b>	10.0 Hrs			(1.0) Hrs	0.5 Hrs	



**Stage II**  
**Flight Lesson 12**  
**(Solo – Local 1.0)**

**Lesson 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.

**Preflight Discussion**

- ❖ Solo operations in the traffic pattern

**Review**

- ❖ Radio Communications
- ❖ Taxiing
- ❖ Before Takeoff Check
- ❖ Normal Takeoff and Climb
- ❖ Traffic Patterns
- ❖ Normal Approach and Landing
- ❖ After Landing, Parking, and Securing

**Postflight Discussion and Preview of Next Lesson**

**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 touch-down point.

**Study Assignment**

*Review, as required, in preparation for the first solo flight in the local flying area.*

	Dual				Solo	
	Local	X-Country	Night	Instrument	Day	X-Country
<b>This Lesson</b>	0.0 Hrs			(0.0) Hrs	1.0 Hrs	
<b>Previous</b>	10.0 Hrs			(1.0) Hrs	0.5 Hrs	
<b>Total</b>	10.0 Hrs			(1.0) Hrs	1.5 Hrs	



**Stage II**  
**Flight Lesson 13**  
**(Solo – Local 1.0)**

**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 stabilized approach.

**Review**

- ❖ Radio Communications
- ❖ Normal and/or Crosswind Takeoffs and Climbs
- ❖ Power-off Stalls
- ❖ Power-on Stalls
- ❖ Maneuvering During Slow Flight
- ❖ S-Turns
- ❖ Turns Around a Point
- ❖ Traffic Patterns
- ❖ Normal and/or Crosswind Approaches and Landings

**Postflight Discussion and Preview of Next Lesson**

**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.

**Study Assignment**

*Jeppesen Private Pilot Maneuvers – Attitude Instrument Flying*

	Dual				Solo	
	Local	X-Country	Night	Instrument	Day	X-Country
<b>This Lesson</b>	0.0 Hrs			(0.0) Hrs	1.0 Hrs	
<b>Previous</b>	10.0 Hrs			(1.0) Hrs	1.5 Hrs	
<b>Total</b>	10.0 Hrs			(1.0) Hrs	2.5 Hrs	





**Stage II**  
**Flight Lesson 14**  
**(Dual – Local 1.0)**

*Note: A view limiting device is required for the .5 hour of dual instrument time allotted to Flight Lesson 14.*

**Lesson References**

*Jeppesen Private Pilot Maneuvers – Attitude Instrument Flying*

**Lesson 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.

**Preflight Discussion**

- ❖ Basic instrument maneuvers, including recovery from unusual flight attitudes
- ❖ Radio communication, navigation systems/facilities, and radar services
- ❖ Resource use
- ❖ Situational awareness
- ❖ Disorientation

**Introduce**

- ❖ VOR Orientation and Tracking (VR)
- ❖ ADF Orientation and homing (VR)
- ❖ Power-off Stalls (IR)
- ❖ Power-on Stalls (IR)
- ❖ Recovery from Unusual Flight Attitudes
- ❖ Using Radio Communications, Navigation Systems/Facilities, and Radar Services (IR)

**Review**

- ❖ Low Level Wind Shear Precautions
- ❖ Short-Field Takeoffs and Maximum Performance Climbs
- ❖ Short-Field Approaches and Landings
- ❖ Power-off Stalls
- ❖ Power-on Stalls
- ❖ Maneuvering During Slow Flight (IR)

**Postflight Discussion and Preview of Next Lesson**



**Stage II, Flight Lesson 14, continued...**

**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 techniques and be able to initiate emergency climbs and descents by instrument reference using radio communications, navigation facilities, and radar services.

	Dual				Solo	
	Local	X-Country	Night	Instrument	Day	X-Country
<b>This Lesson</b>	1.0 Hrs			(0.5) Hrs	0.0 Hrs	
<b>Previous</b>	10.0 Hrs			(1.0) Hrs	2.5 Hrs	
<b>Total</b>	11.0 Hrs			(1.5) Hrs	2.5 Hrs	



## **Stage II**

### **Flight Lesson 15**

#### **(Dual – Local Instrument 1.0)**

*Note: A view limiting device is required for the .5 hour of dual instrument time allocated to Flight Lesson 15.*

#### **Lesson 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.

#### **Preflight Discussion**

- ❖ Flight instrument functions, common errors, and limitations
- ❖ Navigation Instruments
- ❖ Inadvertent Flight into IMC
- ❖ Operations in Turbulence
- ❖ Partial Panel
- ❖ Resource Use

#### **Review**

- ❖ VOR Orientation and Tracking (VR-IR)
- ❖ ADF Orientation and Homing (VR-IR)
- ❖ Maneuvering During Slow Flight (VR-IR)
- ❖ Power-off Stalls (VR-IR)
- ❖ Power-on Stalls (VR-IR)
- ❖ Using Radio Communication, Navigation Systems/Facilities, and Radar Services (IR)
- ❖ Recovery from Unusual Flight Attitudes (IR)
- ❖ Short-Field Takeoffs/Maximum Performance Climbs and Landings
- ❖ Soft-Field Takeoffs and Landings
- ❖ Forward Slips to a Landing
- ❖ Go-Around/Rejected Landing
- ❖ Emergency Operations

#### **Postflight Discussion and Preview of Next Lesson**



**Stage II, Flight Lesson 15, continued...**

**Completion Standards**

The student will be able to demonstrate competency in basic 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 recovery should be coordinated with minimum loss of altitude. Demonstrate increasing skill in short- and soft-field takeoff and landing procedures, display correct recovery techniques from stalls and unusual attitudes, and be able to initiate emergency climbs and descents by instrument reference using radio communications, navigation facilities, and radar services.

**Study Assignment**

*Jeppesen Private Pilot Maneuvers – Night Operations*

	Dual				Solo	
	Local	X-Country	Night	Instrument	Day	X-Country
<b>This Lesson</b>	1.0 Hrs			(0.5) Hrs	0.0 Hrs	
<b>Previous</b>	11.0 Hrs			(1.5) Hrs	2.5 Hrs	
<b>Total</b>	12.0 Hrs			(2.0) Hrs	2.5 Hrs	



## **Stage II**

### **Flight Lesson 16**

#### **(Dual – Night Local 1.0)**

#### **Lesson Reference**

*Jeppesen Private Pilot Maneuvers – Night Operations*

#### **Lesson 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.

#### **Preflight Discussion**

- ❖ Night Vision
- ❖ Disorientation
- ❖ Visual Illusions
- ❖ Night Scanning/Collision Avoidance
- ❖ Aircraft, Airport, and Obstruction Lighting
- ❖ Personal Equipment

#### **Introduce**

- ❖ Preparation for Night Flying
- ❖ Aero Medical Factors
- ❖ Flight Planning Considerations
- ❖ Use of Checklists
- ❖ Preflight Inspection
- ❖ Airworthiness Requirements
- ❖ Taxiing
- ❖ Before Take-off Check
- ❖ Power-off Stalls
- ❖ Power-on Stalls
- ❖ Steep Turns
- ❖ Maneuvering During Slow Flight
- ❖ Normal Takeoffs and Climbs
- ❖ Normal Approaches and Landings
- ❖ Short-Field Takeoffs/Maximum Performance Climbs and Landings
- ❖ Soft-Field Takeoffs and Landings
- ❖ Go-Around/Rejected Landings
- ❖ VFR Navigation



**Stage II, Flight Lesson 16, continued...**

**Postflight Discussion and Preview of Next Lesson**

**Completion Standards**

The student will demonstrate an understanding of the importance of attitude control and 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. The student will also complete 5 takeoffs and landings to a full stop with each landing involving flight in the traffic pattern. All landing approaches should be stabilized with touchdown at a predetermined area on the runway.

**Study Assignment**

*Review, as required, in preparation for the dual cross-country in Flight Lesson 17*

*Note: The 10 night takeoffs and landings to a full stop with each involving flight in the traffic pattern are an FAR Part 141 requirement. Five are scheduled for flight lesson 16 and the other five for flight lesson 18. However, this requirement may be accomplished with fewer than five during a flight, as long as the total of 10 is completed.*

	Dual				Solo	
	Local	X-Country	Night	Instrument	Day	X-Country
<b>This Lesson</b>	0.0 Hrs		1.0 Hrs	(0.0) Hrs	0.0 Hrs	
<b>Previous</b>	12.0 Hrs		0.0 Hrs	(2.0) Hrs	2.5 Hrs	
<b>Total</b>	12.0 Hrs		1.0 Hrs	(2.0) Hrs	2.5 Hrs	



## **Stage II**

### **Flight Lesson 17**

#### **(Dual Cross-Country 2.0)**

*Note: A view limiting device is required for the .5 hour of dual instrument time allocated to Flight Lesson 17.*

#### **Lesson 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.

#### **Preflight Discussion**

- ❖ Sectional Charts
- ❖ Flight Publications
- ❖ Route Selection and Basic Navigation Procedures (Pilotage and Dead Reckoning)
- ❖ Weather Information
- ❖ Fuel Requirements
- ❖ Performance and Limitations
- ❖ Navigation Log
- ❖ FAA Flight Plan (How to open, close, or amend)
- ❖ Weight and Balance
- ❖ Cockpit Management
- ❖ Aeromedical Factors
- ❖ Aeronautical Decision Making
- ❖ Workload Management
- ❖ Basic Instrument Maneuvers and Procedures



## **Stage II, Flight Lesson 17, continued...**

### **Introduce**

#### **Cross-Country Flight**

- ❖ Flight Plan Considerations
- ❖ Departure
- ❖ Opening Flight Plan
- ❖ Course Interception
- ❖ Pilotage
- ❖ Dead Reckoning
- ❖ VOR Navigation
- ❖ ADF Navigation
- ❖ Use of Radar Services (VR)
- ❖ Power Settings and Mixture Control
- ❖ Diversion to an Alternate
- ❖ Lost Procedures
- ❖ Estimates of Groundspeed and ETA
- ❖ Position Fix by Navigation Facilities
- ❖ Flight on Federal Airways
- ❖ Collision Avoidance Precautions
- ❖ Closing the Flight Plan

#### **Instrument Flight**

- ❖ VOR Tracking (IR)
- ❖ ADF Homing (IR)
- ❖ Use of Radar Services (IR)

#### **Airport Operations**

- ❖ National Airspace System
- ❖ Controlled Airports
- ❖ Use of ATIS
- ❖ Use of Approach and Departure Control
- ❖ Go-Around/Rejected Landing
- ❖ CTAF (FSS or UNICOM) Airports

#### **Review**

- ❖ Emergency Operations
- ❖ Systems and Equipment Malfunctions
- ❖ Runway Incursion Avoidance
- ❖ Emergency Approach and Landing (Simulated)
- ❖ Emergency Equipment and Survival Gear





**Stage II, Flight Lesson 17, continued...**

**Post flight Discussion and Preview of Next Lesson**

**Completion Standards**

The student will 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 instrument conditions, include a point of landing at least a straight line distance of more than 50 nautical miles from the original point of departure, and 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.

	Dual				Solo	
	Local	X-Country	Night	Instrument	Day	X-Country
<b>This Lesson</b>	0.0 Hrs	2.0 Hrs	0.0 Hrs	(0.5) Hrs	0.0 Hrs	
<b>Previous</b>	12.0 Hrs	0.0 Hrs	0.0 Hrs	(2.0) Hrs	2.5 Hrs	
<b>Total</b>	12.0 Hrs	2.0 Hrs	1.0 Hrs	(2.5) Hrs	2.5 Hrs	



**Stage II**  
**Flight Lesson 18**  
**(Dual Night Cross-Country 2.0)**

*Note: A view limiting device is required for the .5 hour of dual instrument time allocated to Flight lesson 18*

**Lesson 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.

**Preflight Discussion**

- ❖ Night Orientation, Navigation, and Chart Reading Techniques
- ❖ Weather Information
- ❖ Route Selection
- ❖ Altitude Selection
- ❖ Fuel Requirements
- ❖ Departure and Arrival Procedures

**Introduce**

- ❖ Use of ATIS, Approach, and Departure Control
- ❖ Pilotage
- ❖ Dead Reckoning
- ❖ Radio Navigation (VR-IR)
- ❖ Emergency Operations
- ❖ Use of Unfamiliar Airports
- ❖ Collision Avoidance Precautions
- ❖ Diversion to Alternate
- ❖ Lost Procedures
- ❖ Unusual Attitude Recoveries (IR)

**Review**

- ❖ Preparation for Night Flight
- ❖ Aeromedical Factors
- ❖ Flight Plan Considerations
- ❖ Maneuvering During Slow Flight (VR-IR)
- ❖ Normal Takeoffs and Climbs



**Stage II, Flight Lesson 18, continued...**

- ❖ Normal Approaches and Landings
- ❖ Short-Field Takeoffs/Maximum Performance Climbs and Landings
- ❖ Soft-Field Takeoffs and Landings
- ❖ Go-Around/Rejected Landing

**Postflight Discussion and Preview of Next Lesson**

**Completion Standards**

The student will demonstrate 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 to a full stop with each involving flight in the traffic pattern. Landing approaches stabilized with touchdown at or near the appropriate touchdown area on the runway.

**Study Assignment**

*Prepare for the solo cross-country briefing.*

	Dual				Solo	
	Local	X-Country/Night	Night	Instrument	Day	X-Country
<b>This Lesson</b>	0.0 Hrs	0.0 Hrs / 2.0 Hr	0.0 Hrs	(0.5) Hrs	0.0 Hrs	
<b>Previous</b>	12.0 Hrs	2.0 Hrs / 0.0 Hr	0.0 Hrs	(2.5) Hrs	2.5 Hrs	
<b>Total</b>	12.0 Hrs	2.0 Hrs / 2.0 Hr	1.0 Hrs	(3.0) Hrs	2.5 Hrs	



## **Stage II**

### **Flight Lesson 19**

#### **(Solo Cross-Country 2.5)**

#### **Lesson 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.

#### **Preflight Discussion**

- ❖ Review the Solo Cross-Country Briefing
- ❖ Required Documents and Endorsements
- ❖ Basic VFR Weather Minimums and Airspace Rules
- ❖ En-route Communication
- ❖ ATC Services Available to Pilots
- ❖ En-route Weather Information
- ❖ VFR Position Report
- ❖ Emergency Operations
- ❖ Lost Procedures
- ❖ Diversion
- ❖ Lost Communication Procedures
- ❖ ATC Light Signals
- ❖ Aeronautical Decision Making
- ❖ Resource Use
- ❖ Workload Management

#### **Review**

#### **Preflight Preparation**

- ❖ Flight Plan Considerations
- ❖ Sectional Charts
- ❖ Flight Publications
- ❖ Route Selection
- ❖ Weather Information
- ❖ Fuel Requirements
- ❖ Performance and Limitations
- ❖ Weight and Balance
- ❖ Navigation Log
- ❖ FAA Flight Plan
- ❖ Aeromedical Factors



**Stage II, Flight Lesson 19, continued...**

**Cross-Country Flight**

- ❖ Opening the Flight Plan
- ❖ VOR and ADF Navigation
- ❖ Position Fix by Navigation Facilities
- ❖ Pilotage
- ❖ Dead Reckoning
- ❖ Flight on Federal Airways
- ❖ Use of Unfamiliar Airports
- ❖ Estimates of Groundspeed
- ❖ Estimates of ETA
- ❖ Closing the Flight Plan

**Postflight Discussion and Preview of Next Lesson**

**Completion Standards**

The student will demonstrate accurate planning and conduct of a VFR cross country flight using the three methods of navigation. During the post flight evaluation, the student will exhibit an understanding of unfamiliar airport operations. At least one landing will have been more than 50 nautical miles from the departure airport.

**Study Assignment**

*Review as required in preparation for the Stage II check in Flight Lesson 20.*

	Dual				Solo	
	Local	X-Country/Night	Night	Instrument	Day	X-Country
<b>This Lesson</b>	0.0 Hrs	0.0 Hrs / 0.0 Hr	0.0 Hrs	(0.0) Hrs	0.0 Hrs	2.5 Hrs
<b>Previous</b>	12.0 Hrs	2.0 Hrs / 2.0 Hr	0.0 Hrs	(3.0) Hrs	2.5 Hrs	0.0 Hrs
<b>Total</b>	12.0 Hrs	2.0 Hrs / 2.0 Hr	1.0 Hrs	(3.0) Hrs	2.5 Hrs	2.5 Hrs



**Stage II**  
**Flight Lesson 20**  
**Stage II Check**  
**(Dual Local 1.0)**

**Lesson Objectives**

- ❖ 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.

**Preflight Discussion**

**Conduct of the Stage II Check, Including:**

- ❖ Maneuvers
- ❖ Procedures
- ❖ Acceptable Performance Criteria
- ❖ Applicable Rules

**Review**

**Preflight Preparation**

- ❖ National Airspace System
- ❖ Cross-Country Planning
- ❖ Weather Information
- ❖ Cockpit Management
- ❖ Use of Checklists

**Cross-Country Flight**

- ❖ Departure
- ❖ Course Interception
- ❖ VOR Navigation
- ❖ Pilotage
- ❖ Dead Reckoning
- ❖ Collision Avoidance Precautions
- ❖ Low Level Wind Shear Precautions
- ❖ Diversion to Alternate
- ❖ Lost Procedures
- ❖ Emergency Operations
- ❖ Use of Power Settings and Mixture Control
- ❖ Soft-Field Approaches and Landings
- ❖ Short-Field Takeoffs and Maximum Performance Climbs



**Stage II, Flight Lesson 20, continued...**

- ❖ Short-Field Approaches and Landings
- ❖ Power-off Stalls
- ❖ Power-on Stalls

**Postflight Discussion and Preview of Next Lesson**

**Completion Standards**

The student will 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 ETA's within 10 minutes, and the correct technique for establishing course to an alternate airport. The student will also demonstrate short- and soft-field takeoffs and landings safely with consistent results and will be proficient in all other maneuvers and procedures, as well as the associated knowledge area of Stages I and II prior to advancing to Stage III.

	Dual				Solo	
	Local	X-Country/Night	Night	Instrument	Day	X-Country
<b>This Lesson</b>	1.0 Hrs	0.0 Hrs / 0.0 Hr	0.0 Hrs	(0.0) Hrs	0.0 Hrs	0.0 Hrs
<b>Previous</b>	12.0 Hrs	2.0 Hrs / 2.0 Hr	0.0 Hrs	(3.0) Hrs	2.5 Hrs	2.5 Hrs
<b>Total</b>	13.0 Hrs	2.0 Hrs / 2.0 Hr	1.0 Hrs	(3.0) Hrs	2.5 Hrs	2.5 Hrs



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**Stage III**

**Flight Training**

**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 private pilot certification.





### **Stage III**

#### **Flight Lesson 21**

#### **(Solo Cross-Country 2.0)**

#### **Lesson 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.

#### **Preflight Discussion**

- ❖ Required Documents and Endorsements
- ❖ Basic VFR Weather Minimums
- ❖ Route of Flight/Alternates, Emergency Operations
- ❖ Lost Procedures
- ❖ Diversion
- ❖ ETA Estimates
- ❖ Fuel Requirements
- ❖ Aeronautical Charts and Publications that Apply to the Flight
- ❖ Airspace Rules Pertinent to the Planned Route of Flight
- ❖ En-route Communication, ATC Services, and Pertinent Sources of Weather Information
- ❖ Aeronautical Decision Making
- ❖ Situational Awareness

#### **Review**

#### **Preflight Preparation**

- ❖ Sectional Charts
- ❖ Flight Publications
- ❖ Route Selection
- ❖ Weather Information
- ❖ Fuel Requirements
- ❖ Performance and Limitations
- ❖ Weight and Balance
- ❖ Navigation Log
- ❖ FAA Flight Plan



**Stage III, Flight Lesson 21, continued...**

**Cross-Country Flight**

- ❖ VOR Navigation
- ❖ Position Fix by Navigation Facilities
- ❖ Pilotage
- ❖ Dead Reckoning
- ❖ Estimates of Groundspeed
- ❖ Estimates of ETA
- ❖ Use of Unfamiliar Airports

**Postflight Discussion and Preview of Next Lesson**

**Completion Standards**

This lesson is complete when the student has conducted the assigned cross-country flight. Review the student's navigation log; revised in-flight ETA's at each checkpoint should not vary from the ATAs by more than +/- 5 minutes. At least one landing must be more than 50 nautical miles from the departure airport. Successfully accomplish the three traffic pattern, takeoff, and landing requirements at a controlled airport.

*Note: The solo training requirement for three takeoffs, landings, and traffic patterns at a controlled airport may be completed in other flight lessons. This is a private pilot certification requirement which does not necessarily have to be accomplished during a specific flight lesson.*

	Dual				Solo	
	Local	X-Country/Night	Night	Instrument	Day	X-Country
<b>This Lesson</b>	0.0 Hrs	0.0 Hrs / 0.0 Hr	0.0 Hrs	(0.0) Hrs	0.0 Hrs	2.0 Hrs
<b>Previous</b>	13.0 Hrs	2.0 Hrs / 2.0 Hr	0.0 Hrs	(3.0) Hrs	2.5 Hrs	2.5 Hrs
<b>Total</b>	13.0 Hrs	2.0 Hrs / 2.0 Hr	1.0 Hrs	(3.0) Hrs	2.5 Hrs	4.5 Hrs



### **Stage III**

#### **Flight Lesson 22**

#### **(Solo Cross-Country 4.0)**

#### **Lesson 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.

#### **Preflight Discussion**

- ❖ Conduct of the Planned Flight
- ❖ Cockpit Management, Decision Making, and Judgment
- ❖ FAA Flight Plan (How to Open, Close or Amend)
- ❖ Use of Magnetic Compass
- ❖ Emergency Operations
- ❖ En-route Communications and Facilities
- ❖ In-Flight Weather Analysis
- ❖ Unfamiliar Airport Operations

#### **Review**

#### **Preflight Preparation**

- ❖ National Airspace System
- ❖ Sectional Charts
- ❖ Flight Publications
- ❖ Route Selection
- ❖ Weather Information
- ❖ Fuel Requirements
- ❖ Performance and Limitations
- ❖ Weight and Balance
- ❖ Navigation Log
- ❖ FAA Flight Plan



**Stage III, Flight Lesson 22, continued...**

**Cross-Country Flight**

- ❖ Opening and Closing the Flight Plan
- ❖ VOR Navigation
- ❖ Pilotage
- ❖ Dead Reckoning
- ❖ Estimates of Groundspeed
- ❖ Estimates of ETA
- ❖ Use of Controlled Airports
- ❖ Use of Airports with CTAF (FSS and/or UNICOM)

**Postflight Discussion and Preview of Next Lesson**

**Completion Standards**

This lesson is complete when the student demonstrates 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 nautical miles with landings at three points, including at least one segment of the flight consisting of a straight line distance of at least 50 nautical miles between takeoff and landing locations. Successfully accomplish the three traffic pattern, takeoff, and landing requirements at a controlled airport.

*Note: Due to the amount of time needed to complete this cross-country flight, the lesson may be conducted as two flights. If this is done, and in order for the flight to be classified as cross-country, each flight must include a landing more than 50 nautical miles from the departure airport.*

*In addition, the requirement for three takeoffs, landings, and traffic patterns at a controlled airport may be accomplished in other flight lessons. This is a private pilot certification requirement which does not necessarily have to be accomplished during a specific flight lesson.*

	Dual				Solo	
	Local	X-Country/Night	Night	Instrument	Day	X-Country
<b>This Lesson</b>	0.0 Hrs	0.0 Hrs / 0.0 Hr	0.0 Hrs	(0.0) Hrs	0.0 Hrs	4.0 Hrs
<b>Previous</b>	13.0 Hrs	2.0 Hrs / 2.0 Hr	0.0 Hrs	(3.0) Hrs	2.5 Hrs	4.5 Hrs
<b>Total</b>	13.0 Hrs	2.0 Hrs / 2.0 Hr	1.0 Hrs	(3.0) Hrs	2.5 Hrs	8.5 Hrs



**Stage III**  
**Flight Lesson 23**  
**(Dual Local 2.0)**

*Note: A view limiting device is required for the review of dual maneuvers in Flight Lesson 23.*

**Lesson Objectives**

- ❖ Review the areas of operation, including specified maneuvers and procedures determined by the instructor to increase proficiency to the level required for 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.

**Preflight Discussion**

- ❖ 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.

**Review**

- ❖ Preflight Preparation
- ❖ Ground Operations
- ❖ Maneuvering During Slow Flight (VR-IR)
- ❖ Power-off and Power-on Stalls (VR-IR)
- ❖ Steep Turns
- ❖ Ground Reference Maneuvers
- ❖ Using Radio Communications, Navigation Systems/Facilities, and Radar Services (IR)
- ❖ Unusual Attitude Recoveries (IR)
- ❖ Airport Operations
- ❖ Normal and/or Crosswind Takeoffs and Landings
- ❖ Go-Around/Rejected Landing
- ❖ Short-Field Takeoffs/Maximum Performance Climbs and Landings
- ❖ Soft-Field Takeoffs and Landings
- ❖ Forward Slips to Landing
- ❖ Emergency Operations
- ❖ After Landing, Parking, and Securing
- ❖ Cross-Country Flight Procedures
- ❖ Specific Maneuvers or Procedures Assigned by the Flight Instructor

**Post-flight Discussion and Preview of Next Lesson**



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**Stage III, Flight Lesson 23, continued...**

**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.

	Dual				Solo	
	Local	X-Country/Night	Night	Instrument	Day	X-Country
<b>This Lesson</b>	2.0 Hrs	0.0 Hrs / 0.0 Hr	0.0 Hrs	(0.0) Hrs	0.0 Hrs	0.0 Hrs
<b>Previous</b>	13.0 Hrs	2.0 Hrs / 2.0 Hr	0.0 Hrs	(3.0) Hrs	2.5 Hrs	8.5 Hrs
<b>Total</b>	15.0 Hrs	2.0 Hrs / 2.0 Hr	1.0 Hrs	(3.0) Hrs	2.5 Hrs	8.5 Hrs



**Stage III**  
**Flight Lesson 24**  
**(Dual Local 2.0)**

*Note: A view limiting device is required for the review of dual maneuvers in Flight Lesson 24.*

**Lesson 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 area.

**Preflight Discussion**

- ❖ 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

**Review**

- ❖ Preflight Preparation
- ❖ Ground Operations
- ❖ Maneuvering During Slow Flight (VR-IR)
- ❖ Power-off and Power-on Stalls (VR-IR)
- ❖ Steep Turns
- ❖ Ground Reference Maneuvers
- ❖ Using Radio Communications, Navigation Systems/Facilities, and Radar Services (IR)
- ❖ Unusual Attitude Recoveries (IR)
- ❖ Airport Operations
- ❖ Normal and/or Crosswind Takeoffs and Landings
- ❖ Go-Around/Rejected Landing
- ❖ Short-Field Takeoffs/Maximum Performance Climbs and Landings
- ❖ Soft-Field Takeoffs and Landings
- ❖ Forward Slips to Landing
- ❖ Emergency Operations
- ❖ After Landing, Parking, and Securing
- ❖ Cross-Country Flight Procedures
- ❖ Specific Maneuvers or Procedures Assigned by the Flight Instructor

**Postflight Discussion and Preview of Next Lesson**



**Stage III, Flight Lesson 24, continued...**

**Completion Standards**

This 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.

	Dual				Solo	
	Local	X-Country/Night	Night	Instrument	Day	X-Country
<b>This Lesson</b>	2.0 Hrs	0.0 Hrs / 0.0 Hr	0.0 Hrs	(0.0) Hrs	0.0 Hrs	0.0 Hrs
<b>Previous</b>	15.0 Hrs	2.0 Hrs / 2.0 Hr	0.0 Hrs	(3.0) Hrs	2.5 Hrs	8.5 Hrs
<b>Total</b>	17.0 Hrs	2.0 Hrs / 2.0 Hr	1.0 Hrs	(3.0) Hrs	2.5 Hrs	8.5 Hrs





**Stage III**  
**Flight Lesson 25**  
**Stage III Check**  
**(Dual Local 1.0)**

*Note: A view limiting device is required for the review of dual maneuvers in Flight Lesson 25.*

**Lesson 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 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.

**Preflight Discussion**

- ❖ Maneuvers
- ❖ Procedures
- ❖ Acceptable Performance Criteria
- ❖ Applicable Rules
- ❖ Human Factors Concepts

**Review**

**Maneuvers and Procedures**

- ❖ Preflight Preparation
- ❖ Ground Operations
- ❖ Maneuvering During Slow Flight (VR-IR)
- ❖ Power-off and Power-on Stalls (VR-IR)
- ❖ Steep Turns
- ❖ Ground Reference Maneuvers
- ❖ Using Radio Communications, Navigation Systems/Facilities, and Radar Services (IR)
- ❖ Unusual Attitude Recoveries (IR)
- ❖ Airport Operations
- ❖ Normal and/or Crosswind Takeoffs and Landings
- ❖ Go-Around/Rejected Landing
- ❖ Short-Field Takeoffs/Maximum Performance Climbs and Landings
- ❖ Soft-Field Takeoffs and Landings
- ❖ Forward Slips to Landing
- ❖ Emergency Operations
- ❖ After Landing, Parking, and Securing



**Stage III, Flight Lesson 25, continued...**

**Cross-Country Flight**

- ❖ Radio Navigation
- ❖ Pilotage and Dead Reckoning
- ❖ Diversion to Alternate
- ❖ Lost Procedures

**Postflight Discussion and Preview of Next Lesson**

**Completion Standards**

Each maneuver and procedure should be performed at the proficiency level of 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.

**Study Assignment**

*Private pilot Practical Test Briefing in preparation for the End-of-Course Flight Check and the FAA Practical Test.*

	Dual				Solo	
	Local	X-Country/Night	Night	Instrument	Day	X-Country
<b>This Lesson</b>	1.0 Hrs	0.0 Hrs / 0.0 Hr	0.0 Hrs	(0.0) Hrs	0.0 Hrs	0.0 Hrs
<b>Previous</b>	17.0 Hrs	2.0 Hrs / 2.0 Hr	0.0 Hrs	(3.0) Hrs	2.5 Hrs	8.5 Hrs
<b>Total</b>	18.0 Hrs	2.0 Hrs / 2.0 Hr	1.0 Hrs	(3.0) Hrs	2.5 Hrs	8.5 Hrs



### **Stage III**

#### **Flight Lesson 26**

#### **End-of-Course Flight Check**

#### **(Dual Local 1.0)**

#### **Lesson Objectives**

- ❖ This End-of-Course Flight Check, conducted by the chief instructor, the assistant chief instructor, or the designated check instructor, will 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.

#### **Preflight Discussion**

#### **Conduct of the End-of-Course Flight Check, Including:**

- ❖ Maneuvers
- ❖ Procedures
- ❖ Acceptable Performance Criteria
- ❖ Applicable Rules
- ❖ Human Factors Concepts

#### **Review**

#### **Preflight Preparation**

- ❖ Certificates and Documents
- ❖ Airworthiness Requirements
- ❖ Weather Information
- ❖ Performance and Limitations
- ❖ Cross-Country Flight Planning
- ❖ Operation of Systems
- ❖ Aeromedical Factors
- ❖ National Airspace System

#### **Cross-Country Flying**

- ❖ Pilotage and Dead Reckoning
- ❖ Radio Navigation
- ❖ Diversion to an Alternate
- ❖ Lost Procedures



### Stage III, Flight Lesson 26, continued...

#### Basic Piloting Skills

- ❖ Preflight Inspection
- ❖ Cockpit Management
- ❖ Use of Checklist
- ❖ Engine Starting
- ❖ Taxiing
- ❖ Before Takeoff Check
- ❖ Radio Communication
- ❖ ATC Light Signals
- ❖ Collision Avoidance Precautions
- ❖ Low Level Wind Shear Precautions
- ❖ Wake Turbulence Avoidance
- ❖ Airport, Runway, and Taxiway Signs, Markings, and Lighting
- ❖ Normal and Crosswind Takeoffs and Climbs
- ❖ Short-Field Takeoff and Maximum Performance Climb
- ❖ Soft-Field Takeoff and Climb
- ❖ Straight-and-Level Flight (VR-IR)
- ❖ Constant Airspeed Climbs (VR-IR)
- ❖ Constant Airspeed Descents (VR-IR)
- ❖ Turns to Headings (VR-IR)
- ❖ Unusual Attitudes (IR)
- ❖ Using Radio Communications, Navigation Systems/Facilities, and Radar Services (IR)
- ❖ Maneuvering During Slow Flight
- ❖ Power-off Stalls
- ❖ Power-on Stalls
- ❖ Flight at Slow Airspeeds with Realistic Distractions, and the Recognition and Recovery from Stalls Entered from Straight Flight and Turns
- ❖ Spin Awareness
- ❖ Steep Turns
- ❖ Ground Reference Maneuvers
- ❖ Emergency Approach and Landing (Simulated)
- ❖ Emergency Equipment and Survival Gear
- ❖ Systems and Equipment Malfunctions
- ❖ Traffic Patterns
- ❖ Normal and Crosswind Approaches and Landings
- ❖ Forward Slip to Landing
- ❖ Go-Around/Rejected Landing
- ❖ Short-Field Approach and Landing
- ❖ Soft-Field Approach and Landing
- ❖ After Landing, Parking, and Securing



**Stage III, Flight Lesson 26, continued...**

**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.

	Dual				Solo	
	Local	X-Country/Night	Night	Instrument	Day	X-Country
<b>This Lesson</b>	1.0 Hrs	0.0 Hrs / 0.0 Hr	0.0 Hrs	(0.0) Hrs	0.0 Hrs	0.0 Hrs
<b>Previous</b>	18.0 Hrs	2.0 Hrs / 2.0 Hr	0.0 Hrs	(3.0) Hrs	2.5 Hrs	8.5 Hrs
<b>Total</b>	19.0 Hrs	2.0 Hrs / 2.0 Hr	1.0 Hrs	(3.0) Hrs	2.5 Hrs	8.5 Hrs