



PRIVATE PILOT CERTIFICATE

COURSE SYLLABUS (14 CFR PARTS 61 & 141)

CATEGORY/CLASS: AIRPLANE SINGLE-ENGINE LAND

INTRODUCTION

The Private Pilot 61/141 Syllabus is designed to coordinate the academic study assignments and flight training required by pilots operating in an increasingly complex aviation environment. New subject matter is introduced during the ground lessons and pre-flight orientations.

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

In the flight syllabus, the content portion contains areas of operation which are italicized. Listed under the areas of operation are the tasks which should be emphasized for that flight. When no tasks are listed, the instructor should assign the tasks, as appropriate, for that area of operation. In particular for 14 CFR PART 61 students, additional lessons not outlined or a repeat of lessons covering areas of improvement should be utilized to reinforce proficiency and to meet the higher time requirements of 14 CFR PART 61.

COURSE IMPLEMENTATION

This syllabus is designed to fulfill the requirements of a Private Pilot Certification Course in accordance with 14 CFR PART 141, Appendix B. It is also utilized as a guideline for students pursuing a Private Pilot Certificate under 14 CFR PART 61. Adapting this syllabus to 14 CFR PART 61 training requires only a slight modification of individual flight lesson times to ensure that the applicant has the minimum 40 hours of total flight time. All other times (simulated instrument, night, cross-country, etc) will meet the requirements of both parts.

While the ground-training requirements under 14 CFR PART 141 require formal ground schooling, the requirements under 14 CFR PART 61 specify that an applicant for a knowledge test be required to have a logbook endorsement from an authorized instructor who conducted the training or reviewed the applicant's home study course. A home study course for the purposes of Part 61 is a course of study in the aeronautical knowledge areas specified in 14 CFR 61.105(b), and organized by a pilot school, publisher, flight or ground instructor, or by the student. This syllabus easily satisfies this requirement. As a practical consideration, students seeking pilot certification under Part 61 should receive some formal ground training, either in the classroom or from an authorized flight or ground instructor.

COURSE OBJECTIVE

The student will obtain the knowledge, skill, and aeronautical experience necessary to meet the appropriate 14 CFR PART 61 or 14 CFR PART 141 requirements for a private pilot certificate with an airplane category rating and single-engine land class rating.

COURSE COMPLETION STANDARD

The student must compete all ground lessons and demonstrate through knowledge tests and show through appropriate records that he/she has the necessary knowledge to pass the FAA Private Pilot Knowledge Test. The student must complete all flight lessons demonstrate through flight tests and school records that the necessary aeronautical skill and experience requirements to obtain a private pilot certificate with an airplane category rating and single-engine land class rating have been met.

COURSE MATERIALS

It is required that each student purchase a Jeppesen Private Pilot Kit (Part 141) or provide their own copy of the included texts and tools (Part 61). Besides note-taking supplies, the student should have the following materials:

1. *Jeppesen Guided Flight Discovery: Private Pilot Manual*
2. *Jeppesen Guided Flight Discovery: Private Pilot Maneuvers*
3. *Jeppesen FAR/AIM*
4. *Jeppesen Private Pilot Airmen Knowledge Test Guide*
5. *Jeppesen Private Pilot Practical Test Study Guide*
6. *Jeppesen Private Pilot Practical Test Standards*
7. *Pilot Logbook*
8. *Plotter with VFR Chart scale*
9. *E6B Flight Computer*
10. *Timer (for Cross-Country Flights) [Not included in Jeppesen Private Pilot Kit]*
11. *Flashlight with red/green lens (for Night Flights) [Not included in Jeppesen Private Pilot Kit]*

USE OF OTHER TRAINING MATERIALS

For 14 CFR PART 61 students only, other brands of texts, study guides, practical test standards can be used. The instructor should be familiar with the layout of that particular brand's topics so that the student can be assigned the proper sections for each lesson's study and exercise assignments. Various handouts and video assignments are approved for all students.

REQUIREMENTS FOR SOLO FLIGHT

Before you can fly solo, you must hold a student pilot certificate and at least a current third- class medical certificate. You also must be at least 16 years of age in order to obtain a student pilot certificate and be able to read, speak, write, and understand the English language. Solo flight operations require specific training, successful completion of a pre-solo written exam, and endorsements from your flight instructor. Stage check I must be completed prior to solo flight.

For solo cross-country flying, it is company policy (and good safety practice) that you complete all ground lessons and ground tests in this syllabus, as well as pass your *FAA Private Pilot airplane Airmen Knowledge Test* prior to flying solo cross-country.

REQUIREMENTS FOR COURSE COMPLETION

All students must be at least 17 years of age to graduate and be able to read, speak, write, and understand the English language to complete this course. For 14 CFR PART 141 students, they must meet the time requirements listed in the time table for dual and solo flight, and meet the aeronautical experience requirements under 14 CFR PART 141, Appendix B, to be eligible for course graduation. For 14 CFR PART 61 students, they must meet the current aeronautical experience requirements given under 14 CFR PART 61, Subpart E, to be eligible for course graduation. All students are still required to pass the checkride to earn private pilot certificate privileges.

LESSON DESCRIPTIONS AND STAGES OF TRAINING

Each lesson is described in the syllabus, including objectives, standards, and units of accomplishment and learning. The stage objectives and standards for both ground and flight are described in the respective section of the syllabus.

TESTS AND CHECKS

The syllabus incorporates stage tests and end-of-course tests in accordance with 14 CFR FAR 141, Appendix B. The chief instructor is responsible for ensuring that each student accomplishes the required stage checks and end-of-course tests in accordance with the schools approved training course. However, the chief instructor may delegate authority for stage checks and end-of-course tests to the assistant chief or check instructor. The student must also complete stage exams, pilot briefings, and final examinations that are described within the syllabus. 14 CFR PART 61 students do not have to complete the stage 3 flight check, although it is highly recommended.

RECORDKEEPING

All record of training for this course are tracked in the Jeppesen *Private Pilot Student Record* folder for that student. All information on the front should be completed and signed appropriately. Ground lesson topics are signed off as completed individually for each lesson. All flight training topics are graded individually for each flight the student conducts, both dual and solo. For dual flight lessons, the instructor should record a grade to each item covered and explain the reason for each grade. For solo flight, the student will self-evaluate in the same fashion. The results of all stage examinations and the *FAA Private Pilot Airplane Airmen Knowledge Test* should be recorded on the front of the *Private Pilot Student Record* folder for that student.

CREDIT FOR PREVIOUS TRAINING

According to 14 CFR 141.77, when a student transfers from one FAA-approved school to another approved school, course credits obtained in the previous course of training may be credited for up to 50 percent of the curriculum requirements by the receiving school. However, the receiving school must determine the amount of credit to be allowed based upon a proficiency test or knowledge test, or both, conducted by the receiving school. A student who enrolls in a course of training may receive credit for 25 percent of the curriculum requirements for knowledge and experience gained in a non-FAA-approved flight school, and the credit must be based upon a proficiency test, a knowledge test, or both, and be conducted by the receiving school. The amount of credit for previous training allowed, whether received from an FAA-approved school or from another source, is determined by the receiving school. In addition, the previous provider of the training must certify the kind and amount of training given, and the result of each stage check and end-of-course test, if applicable.

TRAINING TIME TABLE

The following table outlines the total times for various types of flight and ground lessons, not including any time spent on pre/post-flight discussions or exam reviews (these times vary depending on the abilities and preparation of each student). These times meet 14 CFR PART 141, Appendix B, requirements. Students training under 14 CFR PART 61 must complete another 2 hours of total aeronautical experience to meet 14 CFR PART 61, Subpart E, requirements. These students should work with their instructor on what to cover to meet the time requirements, fly solo for practice, or perform practice checkrides to build time and prepare.

FLIGHT TIME								
Stage	Dual					Solo (Day Only)		Combined Dual/Solo
	Day Local	Day Cross Country	Night Local	Night Cross Country	Simulated IFR/Hood	Local	Cross Country	
Flight I	9.0	–	–	–	(0.8)	0.5	–	9.5
Flight II	4.0	4.0	1.0	2.0	(2.2)	2.0	–	13.0
Flight III	6.0	–	–	–	–	1.5	8.0	15.5
Totals	19.0	4.0	1.0	2.0	(3.0)	4.0	8.0	38.0

GROUND TIME		
Stage	Classroom	Exam
Ground I, II, & Flight I	16.0	3.5
Ground III & Flight II	8.0	3.5
Flight III	0.0	3.5
Totals	24.0	8.0

COURSE OUTLINE

This syllabus is presented first in both an overview and a lesson by lesson format. The combined flight and ground training includes the entire outline from Stage I through the completion of Stage III. The lesson sequence and content have been designed to provide the student with maximum academic and flight training prior to the introduction of new maneuvers or procedures. The sequence shown in the syllabus outline should not be altered when the coordinated program is utilized. If absolutely necessary, the placement of ground lesson assignments in the coordinated program may be changed to allow the student to progress more rapidly in his academic study than is outlined in the course. If this method is used, the student should not be allowed to progress into the ground lesson assignments of the next stage until he has completed the flights in the current stage of training. This is important, because the student's recall of academic knowledge decreases with an increase in time between subject introduction during ground training and its application in flight training.

Ground Lessons Stages I, II, and Flight Lessons Stage I

Lesson #	Lesson Description	Ground Time	Flight Time
GL 1	Discovering Aviation	2.0 Classroom	–
GL 2	Airplane Systems	2.0 Classroom	–
FL 1	First Flight	–	0.5 Dual Local
GL 3	Aerodynamic Principles	2.0 Classroom	–
FL 2	Ground Operations	–	1.0 Dual Local
GL 4	The Flight Environment	2.0 Classroom	–
FL 3	Basic Maneuvers	–	1.0 Dual Local, (0.2 IR)
GL 5	Communication & Flight Info	2.0 Classroom	–
FL 4	Airport Operations	–	1.0 Dual Local, (0.2 IR)
GL 6	Stage I Ground Exam	1.0 Exam	–
FL 5	Emergency Landing Procedures	–	1.0 Dual Local, (0.2 IR)
GL 7	Meteorology for Pilots	2.0 Classroom	–
FL 6	Flight Maneuvers	–	1.0 Dual Local
GL 8	Private Pilot Federal Aviation Regulations	2.0 Classroom	–
FL 7	Ground Reference Maneuvers	–	1.0 Dual Local
GL 9	Interpreting Weather Data	2.0 Classroom	–
–	Pre-Solo Written Exam	1.0 Exam	–
FL 8	Review Flight	–	1.0 Dual Local (0.2 IR)
GL 10	Stage II Ground Exam	1.0 Exam	–
FL 9	Stage I Flight Check	0.5 Exam (Oral)	1.0 Dual Local
FL 10	First Solo Flight (Traffic Pattern Only)	–	0.5 Dual Local, 0.5 Solo Local
	Section Totals	16.0 Classroom 3.5 Exam	9.0 Dual Local 0.5 Solo Local (0.8 IR)

Ground Lessons Stage III and Flight Lessons Stage II

Lesson #	Lesson Description	Ground Time	Flight Time
GL 11	Airplane Performance	2.0 Classroom	–
FL 11	Performance Takeoffs & Landings	–	1.0 Dual Local
GL 12	Navigation	2.0 Classroom	–
FL 12	Solo Practice I (Traffic Pattern Only)	–	1.0 Solo Local
GL 13	Human Factor Principles	2.0 Classroom	–
FL 13	Solo Practice II (Practice Area & Traffic Pattern)	–	1.0 Solo Local
GL 14	Flying Cross-Country	2.0 Classroom	–
FL 14	Attitude Instrument Flying	–	1.0 Dual Local, (0.6 IR)
GL 15	Stage III Ground Exam	1.0 Exam	–
FL 15	Partial Panel Instrument Flying	–	1.0 Dual Local, (0.6 IR)
FL 16	Night Local	–	1.0 Dual Night Local
FL 17	Dual Day Cross-Country I	–	2.0 Dual X/C, (0.5 IR)
FL 18	Dual Day Cross-Country II	–	2.0 Dual X/C, (0.5 IR)
FL 19	Dual Night Cross-Country	–	2.0 Dual Night X/C
GL 16	End-Of-Course Exam(s)	2.0 Exam	–
FL 20	Stage II Flight Check	0.5 Exam (Oral)	1.0 Dual Local
Section Totals		8.0 Classroom 3.5 Exam	4.0 Dual Local 4.0 Dual X/C 1.0 Dual Night Local 2.0 Dual Night X/C 2.0 Solo Local (2.4 IR)

Flight Lessons Stage III

Lesson #	Lesson Description	Ground Time	Flight Time
FL 21	Solo Day Cross-Country I	–	2.0 Solo X/C
FL 22	Solo Day Cross-Country II	–	2.0 Solo X/C
FL 23	Long Solo Day Cross-Country	–	4.0 Solo X/C
FL 24	Practical Test Review I	–	2.0 Dual Local, (IR as req.)
FL 25	Solo Practice III (Practice Area & Traffic Pattern)	–	1.5 Solo Local
FL 26	Practical Test Review II	–	2.0 Dual Local, (IR as req.)
FL 27	Stage III Flight Check	0.5 Exam (Oral)	1.0 Dual Local
FL 28	End-Of-Course Flight Check	1.0 Exam (Oral)	1.0 Dual Local
Section Totals		1.5 Exam	6.0 Dual Local, 1.5 Solo Local, 8.0 Solo X/C, (IR as req.)

Course Totals		24.0 Classroom 8.0 Exam	19.0 Dual Local 4.0 Dual X/C 1.0 Dual Night, 2.0 Dual Night X/C 4.0 Solo Local 8.0 Solo X/C (3.0 IR)
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GROUND LESSONS

In accordance with 14 CFR PART 141, ground school training is an integral part of pilot certification courses. The ground training syllabus has been designed to meet this requirement and may be conducted concurrently with flight training. This is the most effective method for course utilization, because the academic knowledge is obtained immediately prior to its application during flight training. When the course is presented as a formal classroom program, lessons should be followed in numerical order as listed in the ground training segment of the syllabus. However, to provide a degree of flexibility for adapting to individual student needs and the training environment, the syllabus lessons may be altered with approval of the chief flight instructor. Any deviation should not disturb the course continuity or objective. Each lesson may be presented in one classroom session, or it may be divided into two sessions, as necessary.

USING THE GROUND LESSON

The ground lessons generally are divided into two sections: Lesson Introduction and Material Presentation/Class Discussion. During the introduction, the instructor should outline the subject material to be covered during the training session, the objective for learning that information, and the performance standards necessary for successful lesson completion.

Each ground lesson also includes a Study Assignment for the next lesson, with some of the lessons also including a Homework Assignment if necessary. Exercises are not required for 14 CFR PART 61 students, but are highly recommended. They are required for 14 CFR PART 141 students.

Upon the completion of each ground lesson topic, the appropriate lesson should be signed off in the *Private Pilot Student Record* folder for that student.

KNOWLEDGE MANUAL & FAR/AIM

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

MANUAL EXERCISES

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

STAGE GROUND EXAMS

At the end of each ground training stage, the students are required to complete the stage ground exam successfully before entering the next stage. The chief instructor should be aware of the results of each student. This gives the chief instructor the chance to check the effectiveness of the instructor(s).

END-OF-COURSE GROUND EXAM & FAA AIRMEN KNOWLEDGE TEST

When all of the appropriate ground lesson assignments are complete, the student will take the end-of-course ground exam and must obtain a minimum of 80% correct to avoid a retake requirement. The chief instructor should be aware of the results of each student. This gives the chief instructor the chance to check the effectiveness of the instructor(s). After a thorough review of the end-of-course exam material, the actual *FAA Airplane Private Pilot Airmen Knowledge Test* should be completed without delay.

GROUND LESSONS STAGE I

During this stage, the student will be introduced to pilot training, aviation opportunities, human factors in aviation, and become familiar with airplane systems and aerodynamic principles, as well as the flight environment. The student also will obtain a basic knowledge of safety of flight, airports, aeronautical charts, airspace, radio communications, and air traffic control services, including the use of radar. In addition, the student will learn radio procedures and the common sources of flight information. This stage is complete when the student has completed the Ground Stage I Exam with a minimum passing score of 80%, and the instructor has reviewed each incorrect response to ensure complete understanding before the student progresses to Ground Stage II.

GROUND LESSONS STAGE II

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 become familiar with FARs as they apply to private pilot operations. Finally, the student will learn how to obtain and interpret various weather reports, forecasts, and graphic charts. This stage is complete when the student has completed the Stage II written exam with a minimum passing score of 80%, and the instructor has reviewed each incorrect response to ensure complete understanding before the student progresses to Stage III.

GROUND LESSONS STAGE III

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. This stage is complete when the student has completed the Stage III and End-of-Course written exams with a minimum passing score of 80%, and the instructor has reviewed each incorrect response to ensure complete understanding.

GROUND LESSONS: STAGE I

GROUND LESSON 1: DISCOVERING AVIATION

- **Objective:** Become familiar with pilot training, aviation opportunities, and human factors in aviation. Gain a basic understanding of the school's pilot training program.
- **References:**
 - *Private Pilot Manual* - Chapter 1: Discovering Aviation.
- **Content:**
 - 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
 - Aviation Opportunities
 - ◆ New Experiences
 - ◆ Aviation Organizations
 - ◆ Category/Class Ratings
 - ◆ Additional Pilot Certificates
 - ◆ Aviation Careers
 - Introduction to Human Factors
 - ◆ Aeronautical Decision Making
 - ◆ Crew Resource Management Training
 - ◆ Pilot-in-Command Responsibility
 - ◆ Communication
 - ◆ Resource Use
 - ◆ Workload Management
 - ◆ Situational Awareness
 - ◆ Aviation Physiology
 - ◆ Alcohol, Drugs, and Performance
 - ◆ Fitness for Flight
- **Completion Standards.** The student will indicate, through oral quizzing, familiarity with pilot training programs (including the school's), opportunities in aviation, and human factors.
- **Study Assignment:** *Private Pilot Manual* - Chapter 2 Airplane Systems.

GROUND LESSON 2: AIRPLANE SYSTEMS

- **Objective:** Gain a basic understanding of the main airplane components and systems. Become familiar with flight instrument functions and operating characteristics, including errors and common malfunctions. Learn about the power plant and related systems.
- **References:**
 - *Private Pilot Manual* - Chapter 2 Airplane Systems.
- **Content:**
 - Airplanes
 - ◆ Fuselage
 - ◆ Wings
 - ◆ Empennage
 - ◆ Landing Gear
 - ◆ Engine/Propeller
 - ◆ Pilot's Operating Handbook (POH)
 - Power Plant & Related Systems
 - ◆ Reciprocating Engine
 - ◆ Induction Systems
 - ◆ Supercharging and Turbo charging
 - ◆ Ignition Systems
 - ◆ Fuel Systems
 - ◆ Refueling
 - ◆ Oil Systems
 - ◆ Cooling Systems
 - ◆ Exhaust Systems
 - ◆ Propellers
 - ◆ Propeller Hazards
 - ◆ Electrical Systems
 - Flight Instruments
 - ◆ Pitot-Static Instruments
 - Airspeed Indicator
 - Altimeter
 - Vertical Speed Indicator
 - ◆ Gyroscopic Instruments
 - Attitude Indicator
 - Heading Indicator
 - Turn Coordinator
 - ◆ Magnetic Compass
- **Completion Standards:** Demonstrate understanding during oral quizzing by instructor at completion of lesson.
- **Exercise Assignment:** Student completes Chapter 2 questions for Sections A, B, and C with a minimum passing score of 80%. Instructor reviews incorrect responses to ensure student understanding prior to progression to Ground Lesson 3.
- **Study Assignment:** *Private Pilot Manual* - Chapter 3, Aerodynamic Principles.

GROUND LESSON 3: AERODYNAMIC PRINCIPLES

- **Objective:** Become familiar with the four forces of flight, aerodynamic principles of stability, maneuvering flight, and load factor. Gain a basic understanding of stall/spin characteristics as they relate to training airplanes. Learn the importance of prompt recognition of stall indications.
- **References:**
 - *Private Pilot Manual* - Chapter 3, Aerodynamic Principles.
- **Content:**
 - Four Forces Of Flight
 - ◆ Lift
 - ◆ Airfoils
 - ◆ Pilot Control of Lift
 - ◆ Weight
 - ◆ Thrust
 - ◆ Drag
 - ◆ Ground Effect
 - Stability
 - ◆ Three Axes of Flight
 - ◆ Longitudinal Stability
 - ◆ Center of Gravity Position
 - ◆ Lateral Stability
 - ◆ Directional Stability
 - ◆ Stalls
 - ◆ Spins
 - Aerodynamics Of Maneuvering Flight
 - ◆ Climbing Flight
 - ◆ Left-Turning Tendencies
 - ◆ Descending Flight
 - ◆ Turning Flight
 - ◆ Load Factor
- **Completion Standards:** Demonstrate understanding during oral quizzing by instructor at completion of lesson.
- **Exercise Assignment:** Student completes Chapter 3 questions for Sections A, B, and C with a minimum passing score of 80%. Instructor reviews incorrect responses to ensure complete student understanding prior to progression to Ground Lesson 4
- **Study Assignment:** *Private Pilot Manual* - Chapter 4, The Flight Environment.

GROUND LESSON 4: THE FLIGHT ENVIRONMENT

- **Objective:** Understand important safety considerations, including collision avoidance cautions, flight-of-way rules, and minimum safe altitudes. Become familiar with airport marking and lighting, aeronautical charts, and types of airspace. Learn about collision avoidance procedures and runway incursion avoidance.
- **References:**
 - *Private Pilot Manual* - Chapter 4, The Flight Environment.
- **Content:**
 - Safety Of Flight
 - ◆ Collision Avoidance/Visual Scanning
 - ◆ Airport Operations
 - ◆ Right-of-Way Rules
 - ◆ Minimum Safe Altitudes
 - ◆ Taxiing in Wind
 - ◆ Positive Exchange of Flight Controls
 - 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
 - Aeronautical Charts
 - ◆ Latitude and Longitude
 - ◆ Projections
 - ◆ Sectional Charts
 - ◆ World Aeronautical Charts
 - ◆ Chart Symbology
 - Airspace
 - ◆ Classifications
 - ◆ Controlled and Uncontrolled Airspace
 - ◆ Classes Of Airspace
 - ◆ Special VFR
 - ◆ Special Use Airspace
 - ◆ Other Airspace Areas
 - ◆ Emergency Air Traffic Rules
 - ◆ Air Defense Identification Zones
- **Completion Standards:** Demonstrate understanding during oral quizzing at completion of lesson.
- **Exercise Assignment:** Student completes Chapter 4 questions for Sections A,B, C, and D with a minimum passing score of 80%. Instructor reviews incorrect responses to ensure complete student understanding prior to progression to ground Lesson 5.
- **Study Assignment:** *Private Pilot Manual* - Chapter 5, Communication and Flight Information.

GROUND LESSON 5: COMMUNICATION AND FLIGHT INFORMATION

- **Objective:** Become familiar with radar, transponder operations, and FAA radar equipment and services for VFR aircraft. Understand the types of service provided by an F5S. Learn how to use the radio for communication. Gain a basic understanding of the sources of flight information, particularly the Aeronautical Information Manual and FAA advisory circulars.
- **References:**
 - *Private Pilot Manual* - Chapter 5, Communication and Flight Information.
- **Content:**
 - 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
 - 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 (ELTs)
 - Sources of Flight Information
 - ◆ Airport/Facility Directory
 - ◆ Federal Aviation Regulations
 - ◆ Aeronautical information Manual (AIM)
 - ◆ Notices to Airmen (NOTAMs)
 - ◆ Advisory Circulars
- **Completion Standards:** Demonstrate understanding during oral quizzing at completion of lesson.
- **Exercise Assignment:** Student completes Chapter 5 question for Sections A, B, C with a minimum passing score of 80%. Instructor reviews incorrect responses to ensure complete understanding prior to progression to Ground Lesson 6.
- **Study Assignment:** *Private Pilot Manual* – Chapters 1, 2, 3, 4, and 5 in preparation for Stage I Exam.

GROUND LESSON 6: STAGE I EXAM

- **Objectives:** Demonstrate comprehension of the material presented in Chapters 1 through 5 of the *Private Pilot Manual*.
- **References:**
 - *Private Pilot Manual* - Chapters 1 through 5.
- **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 1 Exam with minimum of 80%, and the instructor has reviewed each incorrect response to ensure complete understanding before the student progresses to Stage II.
- **Study Assignment:** *Private Pilot Manual* - Chapter 6, Meteorology.

GROUND LESSONS: STAGE II

GROUND LESSON 7: METEOROLOGY

- **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.
- **References:**
 - *Private Pilot Manual* - Chapter 6, Meteorology for Pilots.
- **Content:**
 - Basic Weather Theory
 - ◆ Atmospheric Circulation
 - ◆ Atmospheric Pressure
 - ◆ Coriolis Force
 - ◆ Global Wind Patterns
 - ◆ Local Wind Patterns
 - Weather Patterns
 - ◆ Atmospheric Stability
 - ◆ Temperature Inversions
 - ◆ Moisture
 - ◆ Humidity
 - ◆ Dewpoint
 - ◆ Clouds and Fog
 - ◆ Precipitation
 - ◆ Airmasses
 - ◆ Fronts
 - Weather Hazards
 - ◆ Thunderstorms
 - ◆ Turbulence
 - ◆ Wake Turbulence
 - ◆ Wind Shear
 - ◆ Microburst
 - ◆ Icing
 - ◆ Restrictions to Visibility
 - ◆ Volcanic Ash
- **Completion Standards:** Demonstrate understanding during oral quizzing at completion of lesson.
- **Exercise Assignments:** Student completes Chapter 6 question for Sections A, B, C with a minimum passing score of 80%. Instructor reviews incorrect responses to ensure complete understanding prior to progression to Ground Lesson 8.
- **Study Assignment:** *FAR/AIM* - Private Pilot Recommended FAR Study List.

GROUND LESSON 8: PRIVATE PILOT FEDERAL AVIATION REGULATIONS

- **Objectives:** Understand the appropriate Federal Aviation Regulations in the Private Pilot Recommended FAR 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.
- **References:**
 - *FAR/AIM* - Private Pilot FARs.
- **Content:**
 - FAR Part 1
 - FAR Part 61
 - FAR Part 91
 - NTSB 830
- **Completion Standards:** Demonstrate understanding during oral quizzing at completion of lesson.
- **Exercise Assignment:** Student completes Ground Lesson 8 Private Pilot FAR Exercises with a minimum passing score of 80%. Instructor reviews incorrect responses to ensure understanding prior to progressing to Ground Lesson 9.
- **Study Assignment:** *Private Pilot Manual* - Chapter 7, Interpreting Weather Data.

GROUND LESSON 9: INTERPRETING WEATHER DATA

- **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.
- **References:**
 - *Private Pilot Manual* - Chapter 7, Interpreting Weather Data.
- **Content:**
 - The Forecasting Process
 - ◆ Forecasting Methods
 - ◆ Types of Forecasts
 - ◆ Compiling and Processing Weather Data
 - ◆ Forecasting Accuracy and Limitations
 - 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 Forecast
 - ◆ Severe Weather Reports and Forecasts
 - ◆ AIRNET/SIGNET/Convective SIGNET
 - Graphic Weather Products
 - ◆ Surface Analysis Chart
 - ◆ Weather Depiction Chart Radar Summary Chart
 - ◆ Satellite Weather Pictures
 - ◆ Low-Level Significant Weather Prog
 - ◆ Severe Weather Outlook Chart
 - ◆ Forecast Winds and Temperatures Aloft Chart
 - ◆ Volcanic Ash Forecast and Dispersion Chart
 - Sources of Weather Information
 - ◆ Preflight Weather Sources
 - ◆ In-Flight Weather Sources
 - ◆ Enroute Flight Advisory Service
 - ◆ Weather Radar Services
 - ◆ Automated Weather Reporting Systems
- **Completion Standards:** Demonstrate understanding during oral quizzing at the completion of lesson.
- **Exercise Assignment:** Student completes Chapter 7 questions for Section A, B, C and D with a minimum passing score of 80%. Instructor reviews incorrect responses to ensure complete student understanding prior to progressing to the Stage II Exam.
- **Study Assignment:** *Private Pilot Manual* – Chapters 6 and 7, plus *FAR/AIM* - Private Pilot Recommended FAR Study List, in preparation for Stage I Exam.

GROUND LESSON 10: STAGE II EXAM

- **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.
- **References:**
 - *Private Pilot Manual* - Chapters 6 and 7.
 - *FAR/AIM* - Private Pilot Recommended FAR Study List.
- **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 State II Exam with a minimum passing score of 80%, and the instructor has reviewed each incorrect response to ensure complete understanding before the student progresses to Stage III.
- **Study Assignment:** *Private Pilot Manual* - Chapter 8, Airplane Performance.

GROUND LESSONS: STAGE III

GROUND LESSON 11: AIRPLANE PERFORMANCE

- **Objectives:** Learn how to use data supplied by the manufacturer to predict airplane performance, including takeoff and landing distances and fuel requirements. Learn to compute and control the weight and balance condition of a typical training airplane. Become familiar with basic functions of aviation computers. Understand the effects of density altitude on takeoff and climb performance.
- **References:**
 - *Private Pilot Manual* - Chapter 8, Airplane Performance.
- **Content:**
 - Predicting Performance
 - ◆ Aircraft Performance and Design
 - ◆ Chart Presentations
 - ◆ Factors Affecting Performance
 - ◆ Takeoff and Landing Performance
 - ◆ Climb Performance
 - ◆ Cruise Performance
 - ◆ Using Performance Charts
 - 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
 - ◆ Flight at Various CG Positions
 - Flight Computers
 - ◆ Mechanical Flight Computers
 - ◆ Time, Speed, and Distance
 - ◆ Airspeed and Density Altitude Computations
 - ◆ Wind Problems
 - ◆ Conversions
 - ◆ Multi-Part Problems
 - ◆ Electronic Flight Computers
 - ◆ Modes and Basic Operations
- **Completion Standards:** Demonstrate understanding during oral quizzing at completion of each lesson.
- **Exercise Assignment:** Student completes Chapter 8 questions for Section A, B and C with a minimum passing score of 80%. Instructor reviews incorrect answers to ensure complete understanding prior to progressing to Lesson 12.
- **Study Assignment:** *Private Pilot Manual* - Chapter 9, Navigation.

GROUND LESSON 12: NAVIGATION

- **Objectives:** Learn the basic concepts for VFR navigation using pilotage, dead reckoning, and aircraft navigation systems. Become familiar with guidelines and recommended procedures related to flight planning, use of an FAA Right Plan, VFR cruising altitudes, and lost procedures. Gain a basic understanding of VFR navigation using pilotage, dead reckoning, and navigation systems.
- **References:**
 - *Private Pilot Manual* - Chapter 9, Navigation.
- **Content:**
 - Pilotage and Dead Reckoning
 - ◆ Pilotage
 - ◆ Dead Reckoning
 - ◆ Right Planning
 - ◆ VFR Cruising Altitudes
 - ◆ Right Plan
 - ◆ Lost Procedures
 - VOR Navigation
 - ◆ VOR Operations
 - ◆ Ground and Airborne Equipment
 - ◆ Basic Procedures
 - ◆ VOR Orientation and Navigation
 - ◆ VOR Checkpoints and Test Signals
 - ◆ VOR Precautions
 - ◆ Horizontal Situation Indicator
 - ◆ Distance Measuring Equipment (DME)
 - ADF Navigation
 - ◆ ADF Equipment
 - ◆ Orientation
 - ◆ Homing
 - ◆ ADF Intercepts and Tracking
 - ◆ Movable-Card Indicators
 - ◆ Radio Magnetic Indicator
 - ◆ ADF Precautions
 - Advanced Navigation
 - ◆ VORTAC-Based Area Navigation
 - ◆ Inertial Navigation System
 - ◆ Global Positioning System
- **Completion Standards:** Demonstrate understanding during oral quizzing at completion of lesson.
- **Exercise Assignment:** Student completes Chapter 9 questions for Sections A, B, C and D with a minimum passing score 80%. Instructor reviews incorrect responses to ensure complete student understanding prior to progressing to Ground Lesson 13.
- **Study Assignment:** *Private Pilot Manual* - Chapter 10, Applying Human Factors Principles.

GROUND LESSON 13: APPLYING HUMAN FACTORS PRINCIPLES

- **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.
- **References:**
 - *Private Pilot Manual* - Chapter 10, Applying Human Factors Principles.
- **Content:**
 - Aviation Physiology
 - ◆ Vision in Flight
 - ◆ Night Vision
 - ◆ Visual Illusions
 - ◆ Disorientation
 - ◆ Respiration
 - ◆ Hypoxia
 - ◆ Hyperventilation
 - 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:** Demonstrate understanding during oral quizzing at completion of lesson.
- **Exercise Assignment:** Student completes Chapter 10 for Sections A and B with a minimum passing score of 80%. Instructor reviews incorrect responses to ensure complete student understanding prior to progressing to Ground Lesson 14.
- **Study Assignment:** *Private Pilot Manual* - Chapter 11, Flying Cross-Country.

GROUND LESSON 14: FLYING CROSS-COUNTRY

- **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.
- **References:**
 - *Private Pilot Manual* - Chapter 11, Flying Cross-Country
- **Content:**
 - The Flight Planning Process
 - ◆ Developing the Route
 - ◆ Preflight Weather Briefing
 - ◆ Completing the Navigation Log
 - ◆ Flight Plan
 - ◆ Preflight Inspection
 - The Flight
 - ◆ Departure KGAI to KLNS
 - ◆ KLNS to KCXY
 - ◆ KCXY to KFDK
 - ◆ Diversion to KDMW
 - ◆ Return to KGAI
- **Completion Standards:** Demonstrate understanding during oral quizzing by instructor at completion of lesson.
- **Exercise Assignment:** Student completes Chapter 11 questions for Section A and B with a minimum passing score of 80%. Instructor reviews incorrect responses to ensure complete student understanding prior to progressing to the Stage III Exam.
- **Study Assignment:** *Private Pilot Manual* – Chapters 8, 9, 10, and 11 in preparation for the Stage III Exam.

GROUND LESSON 15: STAGE III EXAM

- **Objectives:** Demonstrate comprehension of the material presented in Chapters 8 through 11 of the Private Pilot Manual.
- **References:**
 - *Private Pilot Manual* - Chapters 8 through 11
- **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 response to ensure complete understanding before the student progresses to the course final examination(s).
- **Study Assignment:** *Private Pilot Manual* – All Chapters in preparation for the Final Exams.

GROUND LESSON 16: END-OF-COURSE EXAM(S)

- **Objectives:** Demonstrate comprehension of the material presented in this course in preparation for the FAA Private Pilot Airplane Airmen Knowledge Test.
- **Content:**
 - Private Pilot Final Exam "A" and/or "B"
- **Completion Standards:** Each student must complete the Private Pilot Final exam "A" with a minimum passing score of 80%, and the instructor should review each incorrect response to ensure complete understanding before the student progresses to the Private Pilot Final Exam "B" (Part 141) or is signed off to take the FAA Private Pilot Airplane Airmen Knowledge Test (Part 61).

***NOTE:** Part 61 Students are not required to take both final examinations if they pass exam "A" with at least an 80% score. If a Part 61 Student fails to meet the 80% requirement, have them take Exam "B" for a retake, alternating between examinations until the student sufficiently performs to standard. Part 141 Students must take and pass both final examinations with a minimum 80% score. It is recommended that the instructor alternates between the two examinations until both are passed to ensure that the test is not passed purely on rote memorization alone.*

FLIGHT LESSONS

The flight lessons in this course are divided into three stages, each providing an important segment of pilot training. Stage One will provide a strong foundation prior to the first solo flight. Stage Two introduces performance take-offs and landings in preparation for the beginning of cross-country flight. Stage Three provides student confidence through solo cross-country flights and develops the student's proficiency to pass the Private Pilot Practical Test. Each stage builds on previous learning and, therefore, should be completed in sequence. However, to provide a degree of flexibility for adapting to individual student needs and the training environment, the syllabus lessons may be altered with approval of the chief flight instructor. Any deviation should not disturb the course continuity or objective.

PREFLIGHT ORIENTATION

Prior to each dual and solo flight, the instructor must provide the student with an overview of the subject matter to be covered during the lesson. Any maneuvers being introduced should be introduced on the ground prior to the beginning of the flight. It is important that the instructor define unfamiliar terms, explains the maneuvers and the objectives of each lesson, and also discuss human factors concepts related to each lesson. Each flight lesson contains information intended to provide a basis for the instructor's pre-flight overview.

AIRPLANE PRACTICE

Airplane practice must be conducted so that the student obtains the maximum benefit from each flight. Each dual flight should begin with a review of previously learned maneuvers before any new maneuvers are introduced. Prior to each solo flight, the instructor must be very specific on what should be practiced and accomplished to ensure the student obtains the maximum benefit from the solo flight.

POSTFLIGHT EVALUATION

After each flight, the student should be debriefed thoroughly. Noticeable advancement should be apparent and recommendations should be made for improvement where appropriate. This action is a valuable instructional technique because it increases retention and, to some degree, prepares the student for the next lesson. As a guide, approximately 10 to 30 minutes is recommended for pre-flight and post-flight briefings combined.

Upon the completion of each flight, the flight and maneuvers practices should be recorded and signed off in the *Private Pilot Student Record* folder for that student.

MANEUVERS EXERCISES

Once a student has been introduced to all maneuvers in each section of the maneuvers book, the student should complete the questions in that section of the maneuvers manual (as homework or with instructor if necessary) and discuss any incorrect responses with the instructor. This ensures student understanding of the subject material throughout the flight training.

STAGE FLIGHT CHECKS

At the end of each flight training stage, the students are required to complete a flight check successfully before entering the next stage. The chief instructor should conduct this check. However, the chief instructor may delegate authority for conducting stage flight checks to the assistant chief instructor or a designated check instructor. In any case, the chief instructor should be aware of the results of each student. This gives the chief instructor the chance to check the effectiveness of the instructor(s).

END-OF-COURSE CHECK & ORAL/PRACTICAL TEST

At the end of flight training, the students are required to complete a final flight check successfully before being authorized to take the Oral/Practical Test. The chief instructor should conduct this check. However, the chief instructor may delegate authority for conducting the flight checks to the assistant chief instructor or a designated check instructor. In any case, the chief instructor should be aware of the results of each student. This gives the chief instructor the chance to check the effectiveness of the instructor(s).

FLIGHT LESSONS STAGE ONE

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

FLIGHT LESSONS STAGE II

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. 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.

FLIGHT LESSONS STAGE III

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

FLIGHT LESSONS: STAGE I

FLIGHT LESSON 1: FIRST FLIGHT

- **Objectives:** Become familiar with the training airplane and its systems. Learn about certificates, documents, and checklists. Understand how to conduct the necessary preflight activities. Learn about the functions of the flight controls, and how they are used to maintain specific attitudes. Gain an understanding of preflight preparation and procedures.
- **Content:**
 - 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
 - ◆ Airplane Servicing
 - ◆ Operation of Systems
 - ◆ Equipment Checks
 - ◆ Location of First Aid Kit
 - ◆ Location of Fire Extinguisher
 - ◆ Engine Starting
 - ◆ Radio Communications
 - ◆ Taxiing
 - ◆ Before Takeoff Check
 - ◆ Normal 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
- **Completion Standards:** Display basic knowledge of aircraft systems and the necessity of checking their operation before flight. Become familiar with the control systems and how they are used to maneuver the airplane on the ground and in the air.
- **Study Assignment:** *Private Pilot Maneuvers* – Ground Operations.

FLIGHT LESSON 2: GROUND OPERATIONS

- **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 procedures for preflight and ground operations.
- **References:**
 - *Private Pilot Maneuvers* – Ground Operations.
- **Content:**
 - Preflight Discussion
 - ◆ Human factors concepts
 - ◆ Preflight activities
 - ◆ Minimum equipment list concept
 - ◆ Engine starting
 - ◆ Airport and runway markings and lighting
 - ◆ Ground operations, including crosswind taxiing
 - ◆ Collision avoidance precautions
 - ◆ Airspeed and configuration changes
 - 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
 - ◆ Normal Takeoff and Climb
 - ◆ Straight-and-Level Flight (VR)
 - ◆ Climbs, Descents, and Level Offs (VR)
 - ◆ Medium Banked Turns in Both Directions (VR)
 - ◆ Normal Approach and Landing
 - ◆ After Landing, Parking, and Securing
 - ◆ Airplane Servicing
 - Introduce
 - ◆ Minimum Equipment List
 - ◆ Airport and Runway Markings and Lighting
 - ◆ Crosswind Taxi
 - ◆ Airspeed and Configuration Changes
 - ◆ Flight at Approach Airspeed
 - ◆ Traffic Patterns
 - ◆ Descents in High and Low Drag Configurations
- **Completion Standards:** Display increased proficiency in preflight activities, ground operations, and coordinated airplane attitude control. Perform takeoffs with instructor assistance. Be familiar with control usage necessary to maintain altitude within +/- 250 feet during airspeed and configuration changes. Exhibit understanding of altitude control by visual references (VR).
- **Study Assignment:** *Private Pilot Maneuvers* – Basic Maneuvers.

FLIGHT LESSON 3: BASIC MANEUVERS

- **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) to enhance understanding of constant rate and airspeed operations. Emphasis will be directed to proper execution of the listed basic maneuvers and procedures, particularly takeoffs, traffic patterns, and landings.
- **References:**
 - *Private Pilot Maneuvers* – Basic Maneuvers.
- **Content:**
 - Preflight Discussion
 - ◆ Situational awareness
 - ◆ Basic instrument maneuvers
 - ◆ Preflight planning
 - ◆ Operation of powerplant, aircraft systems, and engine run up procedures
 - ◆ Visual scanning and collision avoidance precautions
 - ◆ Windshear and wake turbulence avoidance procedures
 - Review
 - ◆ Use of Checklists
 - ◆ Airplane Servicing
 - ◆ Preflight Inspection
 - ◆ Minimum Equipment List
 - ◆ Engine Starting
 - ◆ Radio Communications
 - ◆ Before Takeoff Check
 - ◆ Normal Takeoff and Climb
 - ◆ Traffic Patterns
 - ◆ Collision Avoidance Precautions
 - ◆ Airspeed and Configuration Changes
 - ◆ Descents in High and Low Drag Configurations
 - ◆ Flight at Approach Airspeed
 - ◆ Normal Approach and Landing
 - ◆ Airport and Runway Markings and Lighting
 - ◆ Parking and Securing the Airplane
 - Introduce
 - ◆ Flight at Various Airspeeds From Cruise to Slow Flight
 - ◆ Maneuvering During Slow Flight
 - ◆ Power-Off Stalls
 - ◆ Power-On Stalls
 - ◆ Steep Turns
 - ◆ Straight-and-Level Flight (IR)
 - ◆ Constant Airspeed Climbs (IR)
 - ◆ Constant Airspeed Descents (IR)
- **Completion Standards:** Display increased proficiency in coordinated attitude control during basic maneuvers. Perform unassisted takeoffs. Demonstrate correct communications and traffic pattern procedures. Landing completed with instructor assistance. Maintain altitude within +/- 250 feet during airspeed transitions and while maneuvering at slow speeds. Indicate basic ability to control attitude by instrument reference (IR).
- **Study Assignment:** *Private Pilot Maneuvers* – Airport Operations.

FLIGHT LESSON 4: AIRPORT OPERATIONS

- **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.
- **References:**
 - *Private Pilot Maneuvers* – Airport Operations.
- **Content:**
 - Preflight Discussion
 - ◆ Wake turbulence avoidance
 - ◆ Workload management
 - ◆ Pilot-in-Command responsibilities
 - ◆ Emergency procedures and equipment malfunctions
 - ◆ Emergency field selection
 - Review
 - ◆ Airport and Runway 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
 - ◆ Steep Turns
 - ◆ Normal Takeoffs and Landings
 - ◆ Collision Avoidance Precautions
 - ◆ Traffic Patterns
 - Introduce
 - ◆ Systems and Equipment Malfunctions
 - ◆ Emergency Procedures
 - ◆ Emergency Descent
 - ◆ Emergency Approach and Landing (Simulated)
 - ◆ Emergency Equipment and Survival Gear
 - ◆ Climbing and Descending Turns (VR) (IR)
 - ◆ Turns to Headings (VR) (IR)
 - ◆ Flight at Slow Airspeeds with Realistic Distractions
 - ◆ Recognition and Recovery from Stalls Entered from Straight Flight and from turns
 - ◆ Spin Awareness
 - ◆ Demonstrated Stalls (Secondary, Accelerated Maneuver, Cross-Control, and Elevator Trim)
- **Completion Standards:** Display increased proficiency in coordinated airplane attitude control during basic maneuvers. Perform unassisted takeoffs. Demonstrate correct communications and traffic pattern procedures. Landings completed with instructor assistance. Demonstrate basic understanding of steep turns, slow flight, stalls, stall recovery, and emergency operations. Complete demonstrated stalls. Indicate basic understanding of airplane control by use of the flight instruments.
- **Study Assignment:** *Private Pilot Maneuvers* – Emergency Procedures (All).

FLIGHT LESSON 5: EMERGENCY LANDING PROCEDURES

- **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.
- **References:**
 - *Private Pilot Maneuvers* – Emergency Landing Procedures.
- **Content:**
 - Preflight Discussion
 - ◆ Situational awareness
 - ◆ Realistic distractions
 - ◆ Determining wind direction
 - Review
 - ◆ Positive Exchange of Flight Controls
 - ◆ Maneuvering During Slow Flight (VR)
 - ◆ Power-Off Stalls
 - ◆ Power-On Stalls
 - ◆ Flight at Slow Airspeeds with Realistic Distractions,
 - ◆ Recognition and Recovery from Stalls Entered from Straight Flight and from Turns
 - ◆ Spin Awareness
 - ◆ Emergency Descent
 - ◆ Emergency Approach and Landing (Simulated)
 - ◆ Emergency Equipment and Survival Gear
 - ◆ Normal Takeoffs and Landings
 - ◆ Turns to Headings (VR)
 - ◆ Turns to Headings (IR)
 - Introduce
 - ◆ Rectangular Courses
 - ◆ S-Turns
 - ◆ Turns Around a Point
 - ◆ Maneuvering During Slow Flight (IR)
- **Completion Standards:** Display increased proficiency in coordinated airplane attitude control during basic maneuvers. Perform unassisted takeoffs. Demonstrate correct communications and traffic pattern procedures. Landings completed with a minimum of instructor assistance. Maintain altitude +/- 225 feet and headings +/- 15 degrees during straight and level flight. Demonstrate the ability to recognize and recover from stalls. Indicate basic understanding of attitude instrument flying and simulated emergency landing procedures.
- **Study Assignment:** *Private Pilot Maneuvers* – Flight Maneuvers.

FLIGHT LESSON 6: FLIGHT MANEUVERS

- **Objectives:** Practice the review maneuvers to gain proficiency. Introduce go-arounds, slips, and crosswind takeoffs and landings so the student may begin to learn the procedures during varying wind conditions. Review ground reference maneuvers. Emphasis will be on go-arounds and any of the more advanced maneuvers that appear to be difficult for the student.
- **References:**
 - *Private Pilot Maneuvers* – Flight Maneuvers.
- **Content:**
 - Preflight Discussion
 - ◆ Communication
 - ◆ Workload management
 - ◆ Lost communication procedures
 - ◆ 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 Descent
 - ◆ Emergency Approach and Landing (Simulated)
 - 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)
- **Completion Standards:** Display increased proficiency in coordinated airplane attitude control. Demonstrate ability to fly a specific ground track while maintaining altitude +/- 200 feet. Demonstrate basic understanding of how the forward slip is used for an approach to a landing. Indicate knowledge of crosswind takeoff/landing procedures and go-arounds.
- **Study Assignment:** *Private Pilot Maneuvers* – Ground Reference Maneuvers.

FLIGHT LESSON 7: GROUND REFERENCE MANEUVERS

- **Objective:** Practice Flight maneuvers, takeoffs, landings, and emergency procedures in preparation for solo flight. Review those maneuvers and procedures that appear to be difficult for the student. Emphasis on ground reference maneuvers and, to a slightly lesser degree, emergency operations.
- **References:**
 - *Private Pilot Maneuvers* – Ground Reference Maneuvers.
- **Content:**
 - 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 aircraft to be flown in solo flight
 - Review
 - ◆ Straight-and-Level Flight (VR)
 - ◆ Steep Turns
 - ◆ Constant Airspeed Climbs (VR)
 - ◆ Constant Airspeed Descents (VR)
 - ◆ Climbing and Descending Turns
 - ◆ Turns to Headings (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 Landing
 - ◆ Systems and Equipment Malfunctions
 - ◆ Emergency Procedures
 - ◆ Emergency Descent
 - ◆ Emergency Approach and Landing (Simulated)
 - ◆ ATC Light Signals
- **Completion Standards:** Display increased proficiency and skill in instrument scan and interpretation during practice flight maneuvers. Takeoffs, landings, and go-arounds should be performed without instructor assistance. Emergency procedures should be accomplished with minimal assistance. Ground reference maneuvers should indicate increasing proficiency and precision.
- **Study Assignment:** Student will be provided with a copy of the Presolo Written Exam to prepare for the formal written examination.

FLIGHT LESSON 8: REVIEW FLIGHT

- **Objectives:** Prior to this flight, the instructor will administer and grade the Presolo Written Exam. Practice the listed review maneuvers and/or procedures, including emergency operations and basic instrument maneuvers, with the emphasis being to help the student gain proficiency and confidence.
- **References:**
 - Presolo Written Exam
- **Content:**
 - 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
 - ◆ Recognition and Recovery from Stalls Entered from Straight Flight and from Turns
 - ◆ Spin Awareness
 - ◆ Steep Turns
 - ◆ Rectangular Courses
 - ◆ S-Turns
 - ◆ Turns Around a Point
 - ◆ Systems and Equipment Malfunctions
 - ◆ Emergency Procedures
 - ◆ Emergency Descent
 - ◆ Emergency Approach and Landing (Simulated)
 - ◆ Traffic Patterns
 - ◆ Forward Slips to Landing
 - ◆ Go-Around/Rejected Landing
 - ◆ Normal and/or Crosswind Approach and Landing
- **Completion Standards:** This lesson is complete when the student successfully passes the Presolo Written Exam with a minimum score of 80% and the instructor has reviewed each incorrect response to ensure complete understanding. Demonstrate the ability and readiness for supervised solo flight in the traffic pattern.
- **Study Assignment:** Review any deficient subject areas from the Presolo Written Exam in preparation for Stage I Flight Check.

FLIGHT LESSON 9: STAGE I FLIGHT CHECK

- **Objectives:** The chief instructor, assistant chief instructor, or the designated check instructor will evaluate the student's proficiency to determine if he/she is prepared for solo flight, to include the ability to depart the traffic pattern area. In addition, the student will be evaluated in all other maneuvers, procedures, and knowledge areas appropriate to the first stage of the Flight Training Syllabus.
- **Content:**
 - Preflight Discussion
 - Stage I Oral Evaluation
 - ◆ The components and characteristics of the airplane to be used for solo flight
 - ◆ Maneuvers
 - ◆ Procedures
 - ◆ Acceptable performance criteria
 - ◆ Applicable rules
 - Review
 - Stage I Flight Evaluation
 - ◆ Operation of Systems
 - ◆ Minimum Equipment List
 - ◆ Engine Starting
 - ◆ Radio Communications
 - ◆ Taxiing
 - ◆ Before Takeoff Check
 - ◆ Normal and/or Crosswind Takeoff and Climb
 - ◆ Collision Avoidance Precautions
 - ◆ Wake Turbulence Avoidance
 - ◆ Maneuvering During Slow Flight
 - ◆ Flight at Slow Airspeeds with Realistic Distractions
 - ◆ Recognition and Recovery from Stalls Entered from Straight Flight and from Turns
 - ◆ Spin Awareness
 - ◆ Power-Off Stalls
 - ◆ Power-On Stalls
 - ◆ Systems and Equipment Malfunctions
 - ◆ Emergency Procedures
 - ◆ Emergency Descent
 - ◆ Emergency Approach and Landing (Simulated)
 - ◆ Traffic Patterns
 - ◆ Normal and/or Crosswind Approach and Landing
- **Completion Standards:** This lesson 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 that the student meets the standards before advancing to Stage II.
- **Study Assignment:** Review any deficient subject areas from the Stage I Flight Check and Presolo Written Exam in preparation for first solo flight.

FLIGHT LESSON 10: FIRST SOLO FLIGHT

- **Objectives:** During the dual portion of the lesson, the instructor will review takeoff and landing procedures, as well as critical phase of flight maneuvers, 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. Instructor should be equipped with a radio to communicate with the student.
- **Content:**
 - 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
 - ◆ Maneuvering During Slow Flight
 - ◆ Flight at Slow Airspeeds with Realistic Distractions
 - ◆ Spin Awareness
 - ◆ Power-Off Stalls
 - ◆ Power-On Stalls
 - ◆ Systems and Equipment Malfunctions
 - ◆ Emergency Procedures
 - ◆ Emergency Descent
 - ◆ Emergency Approach and Landing (Simulated)
 - ◆ Traffic Patterns
 - ◆ Go-Around/Rejected Landing
 - ◆ Normal Landings
 - Introduce
 - ◆ Supervised Solo
 - ◆ Radio Communications
 - ◆ Taxiing
 - ◆ Before Takeoff Check
 - ◆ Normal Takeoffs and Climbs
 - ◆ Traffic Patterns
 - ◆ Normal Approaches and Landings
 - ◆ After Landing, Parking, and Securing
- **Completion Standards:** The student will display the ability to solo the training airplane safely in the traffic pattern and away from the traffic pattern. At no time will the safety of the flight be in question. Complete the solo flight in the local traffic pattern only as directed by the instructor.
- **Study Assignment:** *Private Pilot Maneuvers* – Performance Takeoffs and Landings.

FLIGHT LESSONS: STAGE II

FLIGHT LESSON 11: PERFORMANCE TAKEOFFS AND LANDINGS

- **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.
- **References:**
 - *Private Pilot Maneuvers – Performance Takeoffs & Landings.*
- **Content:**
 - Preflight Discussion
 - ◆ Weight and balance computations
 - ◆ Performance estimates
 - ◆ Effects of high density altitude
 - ◆ Aeronautical decision making
 - ◆ Pilot-in-Command responsibility
 - Review
 - ◆ Maneuvering During Slow Flight
 - ◆ Flight at Slow Airspeeds with Realistic Distractions
 - ◆ Recognition and Recovery from Stalls Entered from Straight Flight and from Turns
 - ◆ Spin Awareness
 - ◆ Power-Off Stalls
 - ◆ Power-On Stalls
 - ◆ Rectangular Courses
 - ◆ S-Turns
 - ◆ Turns Around a Point
 - Introduce
 - ◆ Low-Level Wind Shear Precautions
 - ◆ Short-Field Takeoff and Climb
 - ◆ Soft-Field Takeoff and Climb
 - ◆ Short-Field Approach and Landing
 - ◆ Soft-Field Approach and Landing
- **Completion Standards:** The student will be able to explain runway conditions that necessitate the use of soft-field takeoff and landing techniques. Demonstrate the correct procedure to be used under existing or simulated conditions, although proficiency may not be at private pilot level. Ground track during ground reference maneuvers will be accurate. Maintain altitude +/- 150 feet.
- **Study Assignment:** Review as required in preparation for the second supervised solo flight.

FLIGHT LESSON 12: SOLO PRACTICE I (TRAFFIC PATTERN ONLY)

- **Objectives:** The student will fly the second supervised solo in the local traffic pattern. Emphasize airport operations, including takeoff, traffic pattern, approach and landing procedures, as well as collision avoidance and radio communications.
- **Content:**
 - Preflight Discussion
 - ◆ Solo operations in the traffic pattern
 - Review
 - Supervised Solo
 - ◆ Radio Communications
 - ◆ Taxiing
 - ◆ Before Takeoff Check
 - ◆ Normal Takeoffs and Climbs
 - ◆ Traffic Patterns
 - ◆ Normal Approaches and Landings
 - ◆ After Landing, Parking, and Securing
- **Completion Standards:** The Student will perform each of the takeoffs using the correct techniques. Liftoff speed will not vary from the recommended speed by more than five knots. The landing approaches will be stabilized, and the approach speed will not vary more than five knots from the desired speed. Smooth landing touchdowns at the correct speed within 300 feet of the desired touchdown point.
- **Study Assignment:** Review as required in preparation for solo flight in the practice area.

FLIGHT LESSON 13: SOLO PRACTICE II (PRACTICE AREA & TRAFFIC PATTERN)

- **Objectives:** Practice the listed maneuvers to gain proficiency and confidence. Review ground reference maneuvers to increase skill in maintaining specific ground tracks. Practice other maneuvers as directed by the flight instructor. Emphasis on traffic pattern entry, exit, approach, and landing procedures, including use of a stabilized approach.
- **Content:**
 - 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
- **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:** *Private Pilot Maneuvers* – Special Flight Operations: Attitude Instrument Flying

FLIGHT LESSON 14: ATTITUDE INSTRUMENT FLYING

- **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.
- **References:**
 - *Private Pilot Maneuvers – Special Flight Operations: Attitude Instrument Flying*
- **Content:**
 - Preflight Discussion
 - ◆ Basic instrument maneuvers, including recovery from unusual flight attitudes
 - ◆ Radio communication, navigation systems/facilities, and radar services
 - ◆ Emergency descents and climbs
 - ◆ Resource use
 - ◆ Situational Awareness
 - ◆ Disorientation
 - Review
 - ◆ Low Level Wind Shear Precautions
 - ◆ Short-Field Takeoffs and Climbs
 - ◆ Short-Field Approaches and Landings
 - ◆ Power-Off Stalls
 - ◆ Power-On Stalls
 - ◆ Maneuvering During Slow Flight (IR)
 - Introduce
 - ◆ VOR Orientation and Tracking (VR)
 - ◆ ADF Orientation and Homing (VR)
 - ◆ Power-Off Stalls (IR)
 - ◆ Power-On Stalls (IR)
 - ◆ Recovery from Unusual Flight Attitudes (VR)
 - ◆ Emergency Descents and Climbs using Radio Aids or Radar Directives (IR)
 - ◆ Using Radio Communications, Navigation Systems/Facilities, and Radar Services (IR)
- **Completion Standards:** Perform takeoffs and landings smoothly, while maintaining good directional control. Approaches will be stabilized and airspeed will be within five knots of that desired. Demonstrate basic understanding of VOR/ADF orientation, tracking and homing. Display the correct unusual attitude recovery techniques and be able to initiate emergency climbs and descents by instrument reference using radio communications, navigation facilities and radar services.

FLIGHT LESSON 15: PARTIAL PANEL INSTRUMENT FLYING

- **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 and partial panel.
- **Content:**
 - 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 Racking (VR-IR)
 - ◆ ADF Orientation and Homing (VR-IR)
 - ◆ Flight on Federal Airways
 - ◆ Maneuvering During Slow Flight (VR-IR)
 - ◆ Power-Off Stalls (VR-IR) Power-On Stalls (VR-IR)
 - ◆ Emergency Descents and Climbs using Radio Aids or Radar Directives (IR)
 - ◆ Using Radio Communication, Navigation Systems/Facilities, and Radar Services (IR)
 - ◆ Recovery From Unusual Flight Attitudes (VR)
 - ◆ Short-Field Takeoffs and Landings
 - ◆ Soft-Field Takeoffs and Landings
 - ◆ Crosswind Takeoffs and Landings
 - ◆ Forward Slips to a Landing
 - ◆ Go-Around/Rejected Landing
 - ◆ Emergency Operations
 - Introduce
 - ◆ Recovery From Unusual Flight Attitudes (IR)
- **Completion Standards:** Demonstrate competency in basic instrument maneuvers and procedures at the private pilot level, including control of the airplane during unusual attitude recoveries, and emergency climbs and descents. Control altitude +/- 150 feet during level turns, straight-and-level flight, and slow flight. Stall recoveries should be coordinated with a minimum loss of altitude. Demonstrate increasing skill in short and soft-field takeoff and landing procedures. Display the correct recovery techniques from stalls and unusual attitudes. Be able to initiate emergency climbs and descents by instrument reference using radio communications, navigation facilities, and radar services.
- **Study Assignment:** *Private Pilot Maneuvers* – Special Flight Operations: Night Operations

FLIGHT LESSON 16: NIGHT OPERATIONS

- **Objectives:** Introduce the special operational considerations associated with night flying. Practice night traffic patterns, approaches, and landings. Stress importance of including instrument references for maintaining attitude. Emphasize the physiological factors and additional planning associated with the night environment.
- **Content:**
 - Preflight Discussion
 - Preparation for night flying
 - ◆ Night vision
 - ◆ Disorientation
 - ◆ Visual illusions
 - ◆ Night scanning/collision avoidance
 - ◆ Aircraft, airport, and obstruction lighting
 - ◆ Personal equipment
 - Introduce
 - Night Flying
 - ◆ Aeromedical Factors
 - ◆ Flight Planning Considerations
 - ◆ Use of Checklists
 - ◆ Preflight Inspection
 - ◆ Airworthiness Requirements
 - ◆ Minimum Equipment List
 - ◆ Taxiing
 - ◆ Before Takeoff Check
 - ◆ Power-Off Stalls
 - ◆ Power-On Stalls
 - ◆ Steep Turns
 - ◆ Maneuvering During Slow Flight
 - ◆ Normal Takeoffs and Climbs
 - ◆ Normal Approaches and Landings
 - ◆ Short-Field Takeoffs and Landings
 - ◆ Soft-Field Takeoffs and Landings
 - ◆ Go-Around / Rejected Landing
 - ◆ VFR Navigation
- **Completion Standards:** Demonstrate an understanding of the importance of attitude control. Control altitude +/- 150 feet during level turns, straight and level flight, and slow flight. Stall recoveries should be coordinated with a minimum loss of altitude. Complete 5 or more takeoffs and landings to a full stop with each landing involving flight in traffic pattern. All landing approaches should be stabilized with a touchdown at a predetermined area on the runway.
- **Study Assignment:** Review as required in preparation for dual day cross-country flight.

FLIGHT LESSONS 17: DUAL DAY CROSS-COUNTRY I

- **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. Review instrument and emergency operations. Emphasize cross-country navigation procedures that include a point of landing at least a straight-line distance of more than 50 nautical miles from the original point of departure.
- **Content:**
 - Preflight Discussion
 - Cross-Country Planning Process
 - ◆ Charts and 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
 - ◆ Resource use
 - ◆ Workload management
 - ◆ Basic instrument maneuvers and procedures
 - Review
 - ◆ Emergency Operations
 - ◆ Systems and Equipment Malfunctions
 - ◆ Emergency Descent
 - ◆ Runway Incursion Avoidance
 - ◆ Emergency Approach and Landing (Simulated)
 - ◆ Emergency Equipment and Survival Gear
 - Introduce
 - Day Cross-Country Flight
 - ◆ Departure
 - ◆ Opening Flight Plan
 - ◆ Course Interception
 - ◆ Pilotage
 - ◆ Dead Reckoning
 - ◆ VOR Navigation
 - ◆ ADF Navigation
 - ◆ 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
 - ◆ VOR Tracking (IR)
 - ◆ ADF Homing (IR)

- ◆ Use of Radar Services (IR)
 - ◆ National Airspace System
 - ◆ Use of ATIS
 - ◆ Use of Approach and Departure Control
 - ◆ Go-Around/Rejected Landing
 - ◆ CTAF (FSS or UNICOM) Airports
 - ◆ Closing the Flight Plan
- **Completion Standards:** Demonstrate an understanding of how to perform cross-country flight safely as the, including use of navigation systems and radar services under simulated conditions. Include a point of landing at least a straight-line distance of more than 50 nautical miles from the original point of departure. Demonstrate complete preflight planning, weather analysis, use of FAA publications and charts, adherence to the preflight plan, and the use of pilotage, dead reckoning, radio communication, and navigation systems.
- **Study Assignment:** Review as required in preparation for dual day cross-country flight.

FLIGHT LESSONS 18: DUAL DAY CROSS-COUNTRY II

- **Objectives:** Introduce cross-country procedures and the proper techniques to be used during flights out of the local training area, including use of VOR, ADF, and radar services under simulated instrument flight conditions. Prepare the student to make cross-country flights as the sole occupant of the airplane. Review instrument and emergency operations. Emphasize cross-country navigation procedures that include a point of landing at least a straight-line distance of more than 50 nautical miles from the original point of departure.
- **Content:**
 - Preflight Discussion
 - Cross-Country Planning Process
 - ◆ Charts and 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
 - ◆ Resource use
 - ◆ Workload management
 - ◆ Basic instrument maneuvers and procedures
 - Review
 - Day Cross-Country Flight
 - ◆ Departure
 - ◆ Opening Flight Plan
 - ◆ Course Interception
 - ◆ Pilotage
 - ◆ Dead Reckoning
 - ◆ VOR Navigation
 - ◆ ADF Navigation
 - ◆ 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
 - ◆ VOR Tracking (IR)
 - ◆ ADF Homing (IR)
 - ◆ Use of Radar Services (IR)
 - ◆ National Airspace System
 - ◆ Use of ATIS
 - ◆ Use of Approach and Departure Control
 - ◆ Go-Around/Rejected Landing
 - ◆ CTAF (FSS or UNICOM) Airports
 - ◆ Closing the Flight Plan

- ◆ Emergency Operations
 - ◆ Systems and Equipment Malfunctions
 - ◆ Emergency Descent
 - ◆ Runway Incursion Avoidance
 - ◆ Emergency Approach and Landing (Simulated)
 - ◆ Emergency Equipment and Survival Gear
- **Completion Standards:** Demonstrate the skill to perform cross-country flight safely as the sole occupant of the airplane, including use of navigation systems and radar services under simulated conditions. Include a point of landing at least a straight-line distance of more than 50 nautical miles from the original point of departure. Demonstrate complete preflight planning, weather analysis, use of FAA publications and charts, adherence to the preflight plan, and the use of pilotage, dead reckoning, radio communication, and navigation systems.
- **Study Assignment:** Review as required in preparation for dual night cross-country flight.

FLIGHT LESSON 19: DUAL NIGHT CROSS-COUNTRY

- **Objectives:** Introduce night navigation and emergency operations. Recognize the importance of thorough planning and accurate navigation. The flight should include a total distance of more than 100 nautical miles and a point of landing at least a straight-line distance of more than 50 nautical miles from the original point of departure. Attitude instrument flying practice. Emphasize precise aircraft control and the navigation accuracy required for night VFR cross-country flights.
- **Content:**
 - Preflight Discussion
 - ◆ Night orientation, navigation, and chart reading techniques
 - ◆ Weather information
 - ◆ Route selection
 - ◆ Altitude selection
 - ◆ Fuel requirements
 - ◆ Departure and arrival procedures
 - Review:
 - ◆ Night Flying
 - ◆ Aeromedical Factors
 - ◆ Maneuvering During Slow Flight (VR)
 - ◆ Normal Takeoffs and Climbs
 - ◆ Normal Approaches and Landings
 - ◆ Short-Field Takeoffs and Landings
 - ◆ Soft-Field Takeoffs and Landings
 - ◆ Go-Around/Rejected Landing
 - Introduce:
 - ◆ Night Cross-Country Flight
 - ◆ Use of ATIS
 - ◆ Use of Approach and Departure Control
 - ◆ Pilotage
 - ◆ Dead Reckoning
 - ◆ Radio Navigation (VR)
 - ◆ Emergency Operations
 - ◆ Use of Unfamiliar Airports
 - ◆ Collision Avoidance Precautions
 - ◆ Diversion to Alternate
 - ◆ Lost Procedures
- **Completion Standards:** Demonstrated an understanding of night cross-country preparation and flight procedures, including ability to maintain attitude by instrument reference. Navigation should be accurate, and simulated emergency situations should be handled promptly, utilizing proper judgment. Total distance of more than 100 nautical miles required. In addition, the flight must include a point of landing at least a straight-line distance of more than 50 nautical miles from the original point of departure. Complete enough takeoffs and landings to a full stop with each involving flight in the traffic pattern to meet training requirement of 10. Landing approaches stabilized with touch-down at or near the appropriate touchdown area on the runway.
- **Study Assignment:** Review any deficient subject areas in preparation for Stage II Flight Check.

FLIGHT LESSON 20: STAGE II FLIGHT CHECK

- **Objectives:** Demonstrate accurate planning and conduct a VFR cross-country flight using three methods of navigation. During the post-flight evaluation, the student will exhibit an understanding of unfamiliar airport operations. At least one landing more than 50 n.m. from the departure airport. This stage check, conducted by the chief instructor, the assistant chief instructor, or the designated check instructor, will evaluate the student's takeoff, landing, and stall recognition/recovery procedures to determine any areas of weakness. Additionally, the student's ability to plan and conduct cross-country flights will be evaluated, as well as safe and effective operation of the aircraft during all other phases of Flight in Stages I and II of the Private Pilot Syllabus.
- **Content:**
 - Preflight Discussion
 - Stage II Oral Evaluation
 - ◆ Maneuvers
 - ◆ Procedures
 - ◆ Acceptable performance criteria
 - ◆ Applicable rules
 - Review
 - Stage II Flight Evaluation
 - ◆ National Airspace System
 - ◆ Cross-Country Planning
 - ◆ Weather Information
 - ◆ Cockpit Management
 - ◆ Use of Checklists
 - ◆ Departure
 - ◆ Course Interception
 - ◆ VOR Navigation
 - ◆ Pilotage
 - ◆ Dead Reckoning
 - ◆ Collision Avoidance Precautions
 - ◆ Low Level Wind Shear Precautions
 - ◆ Diversion to Alternate
 - ◆ Lost Procedures
 - ◆ Emergency Operations
- **Completion Standards:** Demonstrate the ability to plan and conduct cross-country flights using sound knowledge of flight planning, preflight action, weather analysis, and the appropriate aeronautical publications. Exhibit the correct use of three methods of navigation, the ability to correctly determine location at any time, the ability to compute ETAs within 10 minutes, and the correct technique for establishing a course to an alternate airport. Demonstrate short and soft field takeoffs with consistent results. The student should be proficient in all other maneuvers, as well as the associated knowledge area of Stage I and Stage II prior to advancing Stage III.
- **Study Assignment:** Review as required in preparation for solo day cross-country flight.

FLIGHT LESSONS: STAGE III

FLIGHT LESSON 21: SOLO DAY CROSS-COUNTRY I

- **Objectives:** Use previous experience and training to complete a solo day 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.
- **Content:**
 - Preflight Discussion
 - ◆ Review the Solo Cross-Country Briefing
 - ◆ Required documents and endorsements
 - ◆ Basic VFR weather minimums and airspace rules
 - ◆ Enroute communication
 - ◆ ATC services available to pilots
 - ◆ Enroute weather information
 - ◆ Emergency operations
 - ◆ Lost procedures
 - ◆ Diversion
 - ◆ Lost communication procedures
 - ◆ ATC light signals
 - ◆ Aeronautical decision making
 - ◆ Resource use
 - ◆ Workload management
 - Review
 - ◆ Cross-Country Planning
 - ◆ Charts and Publications
 - ◆ Route Selection
 - ◆ Weather Information
 - ◆ Fuel Requirements
 - ◆ Performance and Limitations
 - ◆ Weight and Balance
 - ◆ Navigation Log
 - ◆ FAA Flight Plan
 - ◆ Aeromedical Factors
 - ◆ Day Cross-Country Flight
 - ◆ Opening the Flight Plan
 - ◆ VOR and ADF Navigation
 - ◆ Position Fix by Navigation Facilities
 - ◆ Pilotage
 - ◆ Dead Reckoning
 - ◆ Use of Unfamiliar Airports
 - ◆ Estimates of Groundspeed
 - ◆ Estimates of ETA
 - ◆ Closing the Flight Plan
- **Completion Standards:** Demonstrate accurate planning and conduct a VFR cross-country flight using three methods of navigation. During the post-flight evaluation, the student will exhibit an understanding of unfamiliar airport operations. At least one landing more than 50 n.m. from the departure airport.
- **Study Assignment:** Review as required in preparation for solo day cross-country flight.

FLIGHT LESSON 21: SOLO DAY CROSS-COUNTRY II

- **Objectives:** Complete the scheduled cross-country flight to improve judgment and confidence when operating in unfamiliar areas. The flight should include a point of landing at least a straight line distance of more than 50 nautical miles from the original point of departure. Three takeoffs and landings to a full stop with each landing involving flight in the traffic pattern at an airport with an operating control tower. Emphasize cross-country procedures and rules for flight within Class D airspace.
- **Content:**
 - 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
 - ◆ Enroute communication, ATC services, and pertinent sources of weather information
 - ◆ Aeronautical decision making
 - ◆ Situational awareness
 - Review
 - ◆ Cross-Country Planning
 - ◆ National Airspace System
 - ◆ Charts and Publications
 - ◆ Route Selection
 - ◆ Weather Information
 - ◆ Fuel Requirements
 - ◆ Performance and Limitations
 - ◆ Weight and Balance
 - ◆ Navigation Log
 - ◆ FAA Flight Plan
 - ◆ Day Cross-Country Flight
 - ◆ Opening and Closing the Flight Plan
 - ◆ VOR & ADF Navigation
 - ◆ Position Fix by Navigation Facilities
 - ◆ Pilotage
 - ◆ Dead Reckoning
 - ◆ Estimates of Groundspeed
 - ◆ Estimates of ETA
 - ◆ Use of Controlled Airports
 - ◆ Use of Airports with CTAF (FSS and/or UNICOM)
 - ◆ Use of Unfamiliar Airports
- **Completion Standards:** This lesson is complete when the student has conducted the assigned cross-country flight. Review the student's navigation log; revised inflight ETAs at each checkpoint should not vary by more than +/- 5 minutes. At least one landing more than 50 n.m. from the departure airport. Successfully accomplish the three traffic pattern, takeoff, and landing requirements at a controlled airport.
- **Study Assignment:** Review as required in preparation for long solo day cross-country flight.

FLIGHT LESSON 22: LONG SOLO DAY CROSS-COUNTRY

- **Objectives:** During this lesson, the student will complete the long cross-country requirement. This flight should be of at least 100 nautical miles, total distance, with landings at a minimum of three points, including a straight-line segment at least 50 nautical miles between takeoff and landing locations. Three takeoffs and landings to a full stop with each landing involving flight in the traffic pattern at an airport with an operating control tower. Emphasize cross-country procedures and rules for flight within Class D airspace.
- **Content:**
 - Preflight Discussion
 - ◆ Conduct of the planned flight
 - ◆ Cockpit management, decision making, and judgment
 - ◆ FAA flight plan (how to open, close, or amend)
 - ◆ Use of the magnetic compass
 - ◆ Emergency descent procedures
 - ◆ Emergency operations
 - ◆ Enroute communications and facilities
 - ◆ In-flight weather analysis
 - ◆ Unfamiliar airport operations
 - Review
 - Cross-Country Planning
 - ◆ National Airspace System
 - ◆ Charts and Publications
 - ◆ Route Selection
 - ◆ Weather Information
 - ◆ Fuel Requirements
 - ◆ Performance and Limitations
 - ◆ Weight and Balance
 - ◆ Navigation Log
 - ◆ FAA Flight Plan
 - Day Cross-Country Flight
 - ◆ Opening and Closing the Flight Plan
 - ◆ VOR & ADF Navigation
 - ◆ Position Fix by Navigation Facilities
 - ◆ Pilotage
 - ◆ Dead Reckoning
 - ◆ Estimates of Groundspeed
 - ◆ Estimates of ETA
 - ◆ Use of Controlled Airports
 - ◆ Use of Airports with CTAF (FSS and/or UNICOM)
 - ◆ Use of Unfamiliar Airports
- **Completion Standards:** Demonstrate cross-country proficiency by completing the flight as planned and without incident. Review the completed navigation log during the postflight evaluation to determine whether it was completed and used correctly. The cross-country flight must include a distance of over 100 n.m. with landings at a minimum of three points, including at least one segment of the flight consisting of a straight-line-distance of at least 50 n.m. Between takeoff and locations. Successfully accomplish the three traffic pattern, takeoff, and landing requirements at a controlled airport.
- **Study Assignment:** Review as required in preparation for Stage III and End-of-Course Flight Checks.

FLIGHT LESSON 23: PRACTICAL TEST REVIEW I

- **Objectives:** Review the areas of operation, including specified maneuvers and procedures determined by the instructor to increase proficiency to the level required of a private pilot. Further develop the student's knowledge and skill in preparation for the private pilot practical test. Emphasis will be on correction of any deficient skill or knowledge areas.
- Content:
 - Preflight Discussion
 - ◆ Preparation for the Stage III and End-of-Course Flight Check
 - ◆ FAA Practical Test Standards
 - ◆ Spin Awareness
 - ◆ 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
 - ◆ Emergency Descents and Climbs Using Radio Aids or Radar Directives (IR)
 - ◆ Using Radio Communications, Navigation Systems/Facilities, and Radar Services (IR)
 - ◆ Unusual Attitude Recoveries (IR)
 - ◆ Airport Operations
 - ◆ Normal and Crosswind Takeoffs and Landings
 - ◆ Go Around/Rejected Landing
 - ◆ Short Field Takeoffs 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
- **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.
- **Study Assignment:** Review as required in preparation for Stage III and End-of-Course Flight Checks.

FLIGHT LESSON 24: SOLO PRACTICE III (PRACTICE AREA & TRAFFIC PATTERN)

- **Objectives:** Review the areas of operation, including specified maneuvers and procedures determined by the instructor to increase proficiency to the level required of a private pilot. Further develop the student's knowledge, skill, and confidence in preparation for the private pilot practical test. Emphasis will be on correction of any deficient skill or knowledge areas as determined by the instructor.
- **Content:**
 - Preflight Discussion
 - ◆ Preparation for the Stage III and End-of-Course Flight Check
 - ◆ FAA Practical Test Standards
 - Review
 - ◆ Preflight Preparation
 - ◆ Ground Operations
 - ◆ Maneuvering During Slow Flight (VR)
 - ◆ Power Off and Power On Stalls (VR)
 - ◆ Steep Turns
 - ◆ Ground Reference Maneuvers
 - ◆ Emergency Descents and Climbs Using Radio Aids or Radar Directives (VR)
 - ◆ Using Radio Communications, Navigation Systems/Facilities, and Radar Services (VR)
 - ◆ Airport Operations
 - ◆ Normal and Crosswind Takeoffs and Landings
 - ◆ GoAround/Rejected Landing
 - ◆ Short Field Takeoffs 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
- **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.
- **Study Assignment:** Review as required in preparation for Stage III and End-of-Course Flight Checks.

FLIGHT LESSON 25: PRACTICAL TEST REVIEW II

- **Objectives:** Review the areas of operation specifically assigned by the instructor with special emphasis on correcting any deficiency in the performance of maneuvers or procedures before the Stage III Check. Further develop the student's knowledge and skill in preparation for the private pilot practical test. Emphasis will be on correction of any deficient skill or knowledge areas.
- **Content:**
 - Preflight Discussion
 - ◆ Maneuvers and procedures in preparation for the Stage III/End-of-Course Flight Check
 - ◆ FAA Practical Test Standards
 - Review
 - ◆ Preflight Preparation
 - ◆ Ground Operations
 - ◆ Maneuvering During Slow Flight (VR-IR)
 - ◆ Power Off and Power On Stalls (VR-IR)
 - ◆ Steep Turns
 - ◆ Ground Reference Maneuvers
 - ◆ Emergency Descents and Climbs Using Radio
 - ◆ Aids or Radar Directives (IR)
 - ◆ Using Radio Communications, Navigation Systems/Facilities, and Radar Services (IR)
 - ◆ Unusual Attitude Recoveries (IR)
 - ◆ Airport Operations
 - ◆ Normal and Crosswind Takeoffs and Landings
 - ◆ Go Around/Rejected Landing
 - ◆ Short Field Takeoffs 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
- **Completion Standards:** The lesson is complete when the student has practiced the assigned maneuvers and procedures. The student should exhibit competence and ability to correct any weak performance areas determined previously. Perform each assigned maneuver and procedure with proper coordination and precision according to the criteria established in the Private Pilot Practical Test Standards.
- **Study Assignment:** Review as required in preparation for Stage III and End-of-Course Flight Checks.

FLIGHT LESSON 26: STAGE III FLIGHT CHECK

- Objectives: This stage check, conducted by the chief instructor, the assistant chief instructor, or the designated check instructor, will evaluate the student's ability to perform the listed maneuvers at the proficiency level of a private pilot. Additionally, the student's ability to plan and conduct cross-country flights safely will be evaluated, as well as safe and effective operation of the aircraft during all other phases of flight in Stage III of the Private Pilot Flight Training Syllabus.
- Content:
 - Preflight Discussion
 - Stage III Oral Evaluation
 - ◆ Maneuvers
 - ◆ Procedures
 - ◆ Acceptable performance criteria
 - ◆ Applicable rules
 - ◆ Human factors concepts
 - Review
 - Stage III Flight Evaluation
 - ◆ Preflight Preparation
 - ◆ Ground Operations
 - ◆ Maneuvering During Slow Flight (VR-IR)
 - ◆ Power Off and Power On Stalls (VR-IR)
 - ◆ Steep Turns
 - ◆ Ground Reference Maneuvers
 - ◆ Emergency Descents and Climbs Using Radio Aids or Radar Directives (IR)
 - ◆ Using Radio Communications, Navigation Systems/Facilities, and Radar Services (IR)
 - ◆ Pilotage and Dead Reckoning
 - ◆ Diversion to Alternate
 - ◆ Lost Procedures
 - ◆ Unusual Attitude Recoveries (IR)
 - ◆ Airport Operations
 - ◆ Normal and Crosswind Takeoffs and Landings
 - ◆ Go Around/Rejected Landing
 - ◆ Short Field Takeoffs and Landings
 - ◆ Soft Field Takeoffs and Landings
 - ◆ Forward Slips to Landing
 - ◆ Emergency Operations
 - ◆ After Landing, Parking, and Securing
- **Completion Standards:** Each maneuver and procedure should be performed at the proficiency level of a private pilot. Mastery of the airplane should be evident and the successful outcome of each task performed should be expected. Any maneuvers or procedures which do not meet this standard should be reviewed with the student and assigned additional practice. Student should exhibit a sound understanding of the knowledge, skill and proficiency requirements for private pilot certification. Demonstrate the ability to plan and conduct cross-country flights using sound knowledge of flight planning, preflight action, weather analysis, and the appropriate aeronautical publications.
- **Study Assignment:** Review as required in preparation for the End-of-Course Flight Check.

FLIGHT LESSON 27: END-OF-COURSE FLIGHT CHECK

- **Objectives:** This End-of-Course Flight Check, conducted by the chief instructor, the assistant chief instructor, or the designated check instructor, is to evaluate the student's overall proficiency, skill, and knowledge in private pilot operations. Additionally, the student will exhibit the sound judgment and decision making capabilities necessary for a private pilot to operate effectively and safely within the U.S. National Airspace System.
- Content:
 - Preflight Discussion
 - End-of-Course Oral Evaluation
 - ◆ Maneuvers
 - ◆ Procedures
 - ◆ Acceptable performance criteria
 - ◆ Applicable rules
 - ◆ Human factors concepts
 - Review
 - End-of-Course Flight Evaluation
 - ◆ Certificates and Documents
 - ◆ Requirements
 - ◆ Weather Information
 - ◆ Performance and Limitations
 - ◆ Cross-country Flight Planning
 - ◆ Operation of Systems
 - ◆ Aeromedical factors
 - ◆ Preflight Inspection
 - ◆ Cockpit Management
 - ◆ Use of Checklist
 - ◆ Engine Starting
 - ◆ Taxiing
 - ◆ Before Takeoff Check
 - ◆ Airport and Runway Markings and Lighting
 - ◆ Normal and Crosswind Takeoffs and Climbs
 - ◆ Short-Field Takeoff and 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)
 - ◆ Using Radio Communications, Navigation Facilities, and Radar Services (IR)
 - ◆ Pilotage and Dead Reckoning
 - ◆ Radio Navigation
 - ◆ Diversion to an Alternate
 - ◆ Lost Procedures
 - ◆ Maneuvering During Slow Flight
 - ◆ Power Off Stalls
 - ◆ Power On Stalls
 - ◆ Flight at Slow Airspeeds with Realistic Distractions
 - ◆ Recognition and Recovery from Stalls Entered from Straight Flight and Turns
 - ◆ Spin Awareness

- ◆ Steep Turns
 - ◆ Unusual Attitudes (IR)
 - ◆ Ground Reference Maneuvers
 - ◆ Emergency Descent
 - ◆ Emergency Approach and Landing (Simulated)
 - ◆ Emergency Equipment and Survival Gear
 - ◆ Systems and Equipment Malfunctions
 - ◆ Radio Communications
 - ◆ ATC Light Signals
 - ◆ Collision Avoidance Precautions
 - ◆ Low-Level Wind Shear Precautions
 - ◆ Wake Turbulence Avoidance
 - ◆ Traffic Patterns
 - ◆ Normal and Crosswind Approaches and Landings
 - ◆ Forward Slips to Landing
 - ◆ Go Around/Rejected Landing
 - ◆ Short Field Approach and Landing
 - ◆ Soft Field Approach and Landing
 - ◆ After Landing, Parking, and Securing
- **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.
- **Study Assignment:** Review as required in preparation for the FAA Practical Examination.