DZ AVIATION

FLIGHT TRAINING · ORLANDO APOPKA (X04)

TRAINING COURSE OUTLINE · 14 CFR PART 61

Private Pilot Certification

Airplane Single-Engine Land
Ground and flight training syllabus



Orlando Apopka Airport (X04) · Apopka, Florida

Ground and flight training under 14 CFR Part 61.

CHIEF INSTRUCTOR	Davide Zambiasi, Gold Seal CFI/CFII, airplane and helicopter
AIRCRAFT	Cessna 172 and Piper PA-28-181 Archer
REVISION	Revision 1 · June 3, 2026
CONTACT	flydz.co · david@flydz.co
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Log of Revisions

Number	Date	Nature of the Changes	Signature
1	06/03/2026	Original issue: syllabus adapted for DZ Aviation (Part 61, X04)	DZ
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Part 61 Minimum Requirements and Training Plan

DZ Aviation trains under 14 CFR Part 61. The minimum aeronautical experience for a private pilot certificate with an airplane single-engine land rating is set by 14 CFR 61.109(a). Meeting those minimums is required, but it is not the same as being ready for the practical test. The table below shows each regulatory minimum, the tightest plan in which this course can meet it (40 hours), and the 50-hour plan this syllabus is built around.

Minimum requirements at a glance

Requirement (14 CFR 61.109(a) unless noted)	Regulatory minimum	40-hour plan	This syllabus (50 h)	Flight lessons
Total flight time	40.0	40.0	50.0	All
Dual flight training	20.0	30.0	39.5	Stages 1 and 2
Dual cross-country	3.0	5.0	7.5	18, 19, 23
Dual night, incl. one cross-country over 100 nm and 10 full-stop landings	3.0	3.5	4.0	22, 23
Flight solely by reference to instruments	3.0	3.0	4.0	3, 9, 17, 18, 19, 22, 23
Practical test preparation within the 2 calendar months before the month of the test	3.0	3.0	6.5	24, 26, 28, 29
Solo flight time	10.0	10.0	10.5	14, 15, 20, 21, 25, 27
Solo cross-country	5.0	5.0	5.5	20, 21
Solo cross-country of at least 150 nm, full-stop landings at 3 points, one leg over 50 nm	1 flight	1 flight	1 flight	21
Solo takeoffs and full-stop landings at a towered airport	3	3	3	20
Ground training or home study on the 61.105(b) knowledge areas	No minimum hours	Self-study + 1-on-1	63.0 h planned	Ground lessons 1–15
Endorsements: pre-solo (61.87), solo cross-country (61.93), solo at another airport within 25 nm (61.93(b)(1), optional), Class B solo (61.95, if solo flights enter the Orlando Class B), knowledge test (61.35), practical test (61.39, 61.103)	Required	Required	Required	13–14, 20–21, GL 15, 29

How we train to the minimums

A student who meets every lesson's completion standards on the first attempt can finish at the 40-hour legal minimum. To make that possible, we work as follows:

- Fly at least 3-5 times per week, in morning slots when possible to avoid Central Florida afternoon thunderstorms. Gaps between lessons are the biggest single driver of total hours.
- Finish each self-study module before its one-on-one ground session, and pass the FAA knowledge test before the Stage 2 cross-country lessons begin.
- Arrive prepared: review the previous debrief, chair-fly the lesson's maneuvers and flows, and have cross-country flights planned before the briefing.
- Combine lessons once their completion standards are met: Stage 1 lessons can be merged when maneuvers are already at standard, Flight Lesson 19 (second dual cross-country) is skipped when Lesson 18 meets standards, and review lessons are reduced to the 3 hours of practical test preparation the regulation requires.
- Plan each flight to satisfy several requirements at once: the night cross-country counts toward dual cross-country, night, and instrument time, and each solo cross-country counts toward both solo and solo cross-country time.
- Track every minimum in the written debrief after each lesson, so no requirement is left for the end of the course.

The 40-hour plan is built as follows:

Phase (flight lessons)	Dual	Solo	Notes
Stage 1 – pre-solo (1–13, condensed)	17.0		Includes 1.0 instrument; ends with the pre-solo stage check
First solo and solo local (14, 15)	1.0	2.0	Pre-solo knowledge test and solo endorsements
Short/soft field, navigation and instruments (16, 17)	3.0		Includes 0.5 instrument
Dual cross-country (18)	2.5		Includes 1.0 instrument; Lesson 19 skipped
Solo cross-countries (20, 21)		5.0	Towered airport landings; 150 nm long cross-country
Night local and night cross-country (22, 23)	3.5		10 full-stop night landings; 0.5 instrument
Solo practice (25, 27)		3.0	Brings solo time to 10.0
Practical test preparation (24, 29)	3.0		Within the 2 calendar months before the month of the test
Total – 40.0 hours	**30.0**	**10.0**	Dual XC 5.0 · night 3.5 · instrument 3.0

What most students actually need

Very few students finish at 40 hours, and this syllabus does not assume they will. It is planned at 50 hours, and any lesson is repeated until its completion standards are met. Based on DZ Aviation's current cost estimates (October 2026), most students finish between 55 and 80 hours, with about 65 hours typical:

- Flying 2–3 times per week: about 55 hours over 5–7 months.
- A typical schedule: about 65 hours over 8–10 months.
- Flying about once per week: about 80 hours over 14–18 months.

The difference comes almost entirely from how often the student flies; the extra hours go mostly to landings, maneuvers flown to ACS standards, and review after weather or schedule gaps. The student is endorsed for the practical test only when he or she consistently meets the current Private Pilot – Airplane ACS.

Course Outline

1. DZ Aviation provides flight and ground instruction at Orlando Apopka Airport (X04), Apopka, Florida, under 14 CFR Part 61. DZ Aviation does not hold an FAA air agency certificate.

DZ Aviation

Orlando Apopka Airport (X04), Apopka, FL · www.flydz.co · david@flydz.co

2. Base of Operations: Orlando Apopka Airport (X04)
    a. Airport: X04 is a public-use, non-towered airport about 4 miles northwest of Apopka and is the base for all training in this course. Runway 15/33 is 3,284 x 60 ft asphalt, with low-intensity edge lights that are pilot-controlled on the CTAF (123.05) and a rotating beacon, so the airport supports day and night training. Runway 15 uses right traffic and has a 241 ft displaced threshold. 100LL is available self-service. Touch-and-go landings are prohibited when three or more aircraft are in the pattern, and powered paragliders operate west of the runway; both are briefed in the first lessons. Training uses the local practice areas and the towered airports of the Orlando terminal area. Airport data must be verified against the current Chart Supplement.
    b. Ground Instruction Facilities: Briefings, debriefings, and one-on-one ground lessons are conducted at X04 in a briefing area suitable for instruction, away from ramp and maintenance activity, with internet access for weather briefings and flight planning.
    c. Ground Trainer: No flight simulation training device is used in this course; all flight training is conducted in the airplane. Students are encouraged to chair-fly each lesson.
3. Training Aids: Ground training uses an online self-study private pilot course (Sporty's, King Schools, or equivalent), FAA handbooks, the aircraft POHs and checklists, current charts, ForeFlight, and diagrams and models during one-on-one sessions.
4. Aircraft: Cessna 172 and Piper PA-28-181 Archer airplanes operated by Countrywide Flyers, a flying club based at X04, are used for flight training in this course. Each aircraft is maintained and inspected as required by 14 CFR Part 91 and equipped for day and night VFR flight as specified in 14 CFR 91.205, with at least one VHF transceiver, a VOR or GPS navigation receiver, and a transponder with ADS-B Out for operations in the Orlando Class B Mode C veil.

a. Students must join Countrywide Flyers and complete the club's aircraft checkout before flying club aircraft. Membership, aircraft scheduling, checkout, and insurance requirements are set by the club, not by DZ Aviation.

b. Students normally train in one aircraft type through first solo. Changing between the Cessna 172 and the Archer requires additional training and a solo endorsement for that make and model (14 CFR 61.87(n)).

5. Chief Instructor:

   a. The chief instructor for the Private Pilot Certification course is:

      i. **Davide Zambiasi – Gold Seal CFI/CFII, airplane and helicopter**

   b. The chief instructor conducts the training in this course, administers all stage exams, stage checks, and the end-of-course check, keeps the training records, and issues all required endorsements.

6. Instructors: All training in this course is given by the chief instructor.

7. Training Records: Each lesson is logged in the student's logbook and in the DZ Aviation training record, with a written debrief that states which completion standards were met and what comes next. Endorsements follow the current edition of FAA Advisory Circular 61-65.

8. Scheduling: Students should schedule at least three lessons per week. Morning lessons are recommended from late spring through early fall to avoid afternoon thunderstorms. When more than three weeks pass between flight lessons, the next lesson normally begins with a review of the previous lesson's elements.

Curriculum Overview

The DZ Aviation Private Pilot Certification course (the course) is designed to meet the aeronautical knowledge, flight proficiency, and aeronautical experience requirements of 14 CFR 61.105, 61.107, and 61.109(a) for a private pilot certificate with an airplane category and single-engine land class rating. DZ Aviation trains under 14 CFR Part 61; the course is organized in stages, with stage exams, stage checks, and written completion standards, because this makes progress measurable and keeps training on track. The instructor refers to the regulations throughout the course so that every knowledge area, flight proficiency, and experience requirement is covered and documented in the student's logbook and training record. Maneuvers and procedures are named as in the TASKS of the current FAA Private Pilot – Airplane Airman Certification Standards (ACS).

The syllabus has separate ground and flight segments that are taught concurrently. The ground lessons are divided into two stages. In Stage 1, the student is introduced to flight training, human factors, airplane systems and flight instruments, aerodynamics, airports and airspace, and radio communications and sources of flight information. In Stage 2, the student studies weather theory and weather products, performance and weight and balance, navigation and cross-country planning, the regulations, and aeromedical factors and aeronautical decision making (ADM).

The flight lessons are separated into two stages. In Stage 1, the student builds the skills and knowledge required for safe solo flight, ending with the pre-solo stage check. In Stage 2, the student completes the solo, cross-country, night, and instrument experience required by 14 CFR 61.109(a), including the 150 nautical mile solo cross-country, and prepares for the practical test.

The course coordinates ground and flight lessons in a step-by-step progression of introduction and practice, combining self-study assignments, one-on-one ground instruction, and training in the airplane. When the order and principles of the syllabus are followed, they make the difference between an effective program and a succession of lessons without direction. Even so, the syllabus is not a rigid document: it is a summary of the course of training, and the instructor adapts it to each student's needs and to the local training environment.

Course elements

The course has a ground portion and a flight portion, which are normally conducted together. The ground portion covers the aeronautical knowledge areas of 14 CFR 61.105(b); the flight portion covers the areas of operation of 14 CFR 61.107(b)(1) and the aeronautical experience of 14 CFR 61.109(a). A student who completes the course meets the Part 61 training requirements for the private pilot certificate.

Course enrollment

A student may enroll at any time and may begin at the start of any stage, subject to the evaluation described under Credit for previous training. The student must be able to read, speak, write, and understand the English language. Before solo flight, the student must hold a student pilot certificate (14 CFR 61.83; minimum age 16, applied for through IACRA) and at least a third-class medical certificate (14 CFR 61.23). BasicMed is available only to pilots who have held an FAA medical certificate at some point after July 14, 2006. Applying for the medical early is strongly recommended. Before the first flight lesson, U.S. citizens must show proof of citizenship, and non-U.S. citizens must have TSA approval under 49 CFR Part 1552. Flying Countrywide Flyers aircraft also requires club membership and the club's aircraft checkout.

Credit for previous training

All flight and ground training previously received from an authorized instructor and properly logged counts toward the requirements of 14 CFR 61.109(a), whether it was received under Part 61 or Part 141. Before placing a student who has prior training, the chief instructor reviews the student's logbook and endorsements and conducts an evaluation flight and oral review. The student then enters the course at the lesson that matches the proficiency demonstrated. Solo endorsements are issued only after the student has received the required pre-solo training from the endorsing instructor (14 CFR 61.87).

Ground training

14 CFR 61.105(a) requires the applicant to receive and log ground training from an authorized instructor, or to complete a home-study course, on the aeronautical knowledge areas of 14 CFR 61.105(b). This course combines both. Before each ground lesson, the student completes the assigned module of an online self-study course (Sporty's, King Schools, or an equivalent course accepted by the chief instructor). The student then reviews the lesson one-on-one with the instructor, who covers weak areas, applies the material to the Orlando training environment, and checks the student against the lesson's completion standards. The ground lessons of each stage

should be completed before or alongside the flight lessons of that stage, so that knowledge is applied shortly after it is learned. The chief instructor may reorder or combine ground lessons to fit the student, as long as the course progression and objectives are preserved.

Using the ground lessons

Each ground lesson lists its objectives, the recommended self-study and one-on-one time, required materials, lesson elements, and completion standards. At the start of the one-on-one session, the instructor outlines the objectives, the elements to be covered, and the completion standards. Self-study times are estimates; one-on-one time is logged as ground training and may be split across briefings and debriefings when that serves the student better.

Textbooks and required materials

Before each ground lesson, the student completes the assigned self-study module and reads the related sections of the references below. The following materials are required for the course:

- Online private pilot ground school course (Sporty's Learn to Fly, King Schools, or equivalent)
- Airplane Flying Handbook (FAA-H-8083-3)
- Pilot's Handbook of Aeronautical Knowledge (FAA-H-8083-25)
- Pilot's Operating Handbook and club checklists for the aircraft flown (Cessna 172 and/or Piper PA-28-181 Archer)
- FAR/AIM (current edition)
- Current Chart Supplement U.S. (Southeast)
- Current Jacksonville Sectional Chart and Orlando Terminal Area Chart (paper or ForeFlight)
- Airman Knowledge Testing Supplement for Sport Pilot, Recreational Pilot, and Private Pilot (FAA-CT-8080-2)
- Private Pilot – Airplane Airman Certification Standards (FAA-S-ACS-6, current edition)
- ForeFlight or another electronic flight bag with current data

Stage written exams and end-of-course written exams

Each ground stage ends with a written stage exam on the material unique to that stage. The minimum passing score is 80%, and the instructor reviews every incorrect answer with the student before the next stage begins. After all ground lessons are complete, the student takes the end-of-course written exam, a comprehensive review for the FAA Private Pilot knowledge test. The logged ground training and a passed end-of-course exam are the basis for the

knowledge test endorsement required by 14 CFR 61.35(a)(1). Students are encouraged to take the FAA knowledge test before the Stage 2 cross-country flight lessons.

Stage Checks and end-of-course check

Each flight stage ends with a stage check conducted by the chief instructor: Flight Lesson 13 (pre-solo stage check) and Flight Lesson 29 (end-of-course check). The student must meet the stage completion standards before moving to the next stage. The end-of-course check is a full mock practical test flown to the current Private Pilot – Airplane ACS, and is the basis for the practical test endorsements required by 14 CFR 61.39(a)(6) and 61.103.

Preflight Orientation

Before each dual and solo flight, the instructor briefs the lesson: its objectives, the elements to be covered, and the completion standards, including unfamiliar terms and the maneuvers and procedures to be flown. The briefing is tailored to the flight, the local environment (the X04 traffic pattern, the Orlando Class B airspace, and Central Florida weather), and the individual student. After every lesson, the instructor gives the student a written debrief stating what met standards, what needs more work, and the plan for the next lesson.

Deviations

This syllabus has been written with a building block progression of learning. The succession of the lessons is designed to optimize the learning process. However, even though the lessons are arranged in a logical sequence, the syllabus should not be considered a rigid document. It should be considered as an abstract or summary of the course of training. Therefore the instruction must provide flexibility to adapt to individual student needs and/or the local training environment. With the approval of the chief instructor, lessons may be rearranged to better suit the needs of the student as long as it will not hinder the overall progression of the building blocks. Any training for which the lesson order is changed within a stage requires the approval of the chief instructor.

Course Completion Certificate

Students who complete all ground and flight lessons, stage exams, and stage checks receive a DZ Aviation course completion certificate after Flight Lesson 29. Because DZ Aviation trains under Part 61, this is not a Part 141 graduation certificate: eligibility for the practical test comes from the student's logged aeronautical experience (14 CFR 61.109(a)), a passed knowledge test, and the required instructor endorsements (14 CFR 61.39 and 61.103).

Course completion

To complete the course, the student must complete the ground and flight lessons in the order given (unless changed by the chief instructor as described under Deviations), meet every lesson and stage completion standard, and meet the aeronautical knowledge, flight proficiency, and aeronautical experience requirements of 14 CFR 61.105, 61.107, and 61.109(a).

Structure and Hours Plan

Ground Course

	Self-study (recommended)	1-on-1 ground instruction	Stage and EOC exams	Total ground time
Stage 1	18.0	5.5	2.0	25.5
Stage 2	25.0	8.5	4.0	37.5
Part 61 minimum	NS	NS	NS	NS
Course total	43.0	14.0	6.0	63.0

NS = none specified. Part 61 sets no minimum ground hours: the student logs ground training or a home-study course on the 61.105(b) areas and receives a knowledge test endorsement (14 CFR 61.35).

Ground course overview

Private Pilot Course	Lesson number	Self-study (recommended)	1-on-1 ground	Exam time	Total ground time	Lesson description
	1	3.0	1.0		4.0	Human factors
	2	3.0	1.0		4.0	Airplane systems & flight instruments
	3	4.0	1.0		5.0	Aerodynamics & stability
	4	4.0	1.5		5.5	Airport operations, charts & airspace
	5	4.0	1.0		5.0	Communications & sources of flight information
	6			2.0	2.0	Stage 1 written exam
Stage 1	**Total**	**18.0**	**5.5**	**2.0**	**25.5**	
	7	2.0	1.0		3.0	Weather theory
	8	4.0	1.5		5.5	Weather reports & forecasts
	9	6.0	1.5		7.5	Performance, weight & balance, flight computers
	10	4.0	1.0		5.0	Pilotage, dead reckoning, radio navigation
	11	3.0	1.5		4.5	Cross-country planning
	12	4.0	1.0		5.0	Federal aviation regulations
	13	2.0	1.0		3.0	Physiology & aeronautical decision making
	14			2.0	2.0	Stage 2 written exam
	15			2.0	2.0	End-of-course exam
Stage 2	**Total**	**25.0**	**8.5**	**4.0**	**37.5**	
Course Total		**43.0**	**14.0**	**6.0**	**63.0**	

Flight lessons structure

					Cross-country		Night			
Private Pilot Course	Lesson	Pre/Post brief	Dual	Solo	Dual	Solo	Dual	Instrument	Check ride prep	Total flight
	1	1.0	1.0							1.0
	2	0.5	2.0							2.0
	3	0.5	2.0					0.5		2.0
	4	0.5	1.5							1.5
	5	0.5	1.5							1.5
	6	0.5	1.5							1.5
	7	0.5	1.5							1.5
	8	0.5	1.5							1.5
	9	0.5	1.5					0.5		1.5
	10	0.5	1.5							1.5
	11	0.5	1.5							1.5
	12	0.5	1.0							1.0
	13	2.3	2.0							2.0
Stage 1	**Total**	**8.8**	**20.0**	**0.0**	**0.0**	**0.0**	**0.0**	**1.0**	**0.0**	**20.0**
	14	0.5	1.0	0.5						1.5
	15	0.5		1.5						1.5
	16	0.5	1.5							1.5
	17	0.5	1.5					0.5		1.5
	18	1.0	2.5		2.5			1.0		2.5
	19	1.0	2.5		2.5			0.5		2.5
	20	1.0		2.5		2.5				2.5
	21	1.0		3.0		3.0				3.0
	22	0.5	1.5				1.5	0.5		1.5
	23	1.0	2.5		2.5		2.5	0.5		2.5
	24	0.5	1.5						1.5	1.5
	25	0.5		1.5						1.5

	26	0.5	1.5						1.5	1.5
	27	0.5		1.5						1.5
	28	0.5	1.5						1.5	1.5
	29	2.9	2.0						2.0	2.0
Stage 2	**Total**	**12.9**	**19.5**	**10.5**	**7.5**	**5.5**	**4.0**	**3.0**	**6.5**	**30.0**
Course Total		**21.7**	**39.5**	**10.5**	**7.5**	**5.5**	**4.0**	**4.0**	**6.5**	**50.0**
Part 61 Minimums			**20.0**	**10.0**	**3.0**	**5.0**	**3.0**	**3.0**	**3.0**	**40.0**

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Stage 1 – Ground Lessons

OBJECTIVES:

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

COMPLETION STANDARDS:

- This stage is complete when the student has taken the Private Stage 1 written exam with a minimum passing score of 80%. Also, the instructor has reviewed each incorrect response to ensure complete understanding before the student progresses to the next stage.

EXPECTATIONS:

- The Student is expected to review and study the lessons' related material and attend class prepared to progress through the course.

Ground lesson 1: Introduction to flight training & Human Factors in flight

OBJECTIVES:

- Become familiar with the flight training syllabus, DZ Aviation and Countrywide Flyers procedures, X04, and the resources needed to complete the course successfully.
- Become familiar with human factors in aviation.

SCHEDULE: 3.0 h self-study + 1.0 h 1-on-1

MATERIAL REQUIRED:

- FAR/AIM
- Airplane Flying Handbook
- PHAK

LESSON ELEMENTS:

Introduction to the Training Environment

- Private Pilot Flight Training Syllabus
- Expectations for punctuality, preparation, and professionalism
- Scheduling lessons with DZ Aviation and reserving Countrywide Flyers aircraft
- Countrywide Flyers membership, aircraft checkout, aircraft documents, and squawk reporting
- Ramp and propeller safety briefing at X04

Introduction to Pilot resources

- Countrywide Flyers club rules and aircraft checklists
- Written lesson debriefs and the student training record
- Self-study ground school course
- FAR/AIM
- Role of the FAA
- Eligibility: student pilot certificate (IACRA), medical certificate or BasicMed, and TSA citizenship verification
- FAA Airman Certification Standards (ACS)
- Private pilot privileges and limitations

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 / “IMSAFE” checklist

COMPLETION STANDARDS:

- The student will indicate, through oral quizzing, familiarity with human factors and understanding of private pilot privileges.

Ground Lesson 2: Airplane systems & flight instruments

OBJECTIVES:

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

SCHEDULE: **3.0 h self-study + 1.0 h 1-on-1**

MATERIAL REQUIRED:

- Airplane Flying Handbook
- PHAK
- POH

LESSON ELEMENTS:

Airplanes

- Fuselage
- Wings
- Empennage
- Landing gear
- Engine/propeller
- Pilots' operating handbook (POH)
- Flight Controls
  - Axis of flight
  - Ailerons
  - Elevator
  - Rudder
  - Trim
  - Flaps

The lesson continues in the next page

Power-plant and related systems

- Reciprocating engines
- Induction systems
- Supercharging and turbocharging
- 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
- Magnetic compass

COMPLETION STANDARDS:

- Demonstrate understanding of parts of the airplane, power-plants, and flight instruments during oral quizzing by instructor at completion of lesson

Ground Lesson 3: Aerodynamics and stability

OBJECTIVES:

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

SCHEDULE: **4.0 h self-study + 1.0 h 1-on-1**

MATERIAL REQUIRED:

- Airplane Flying Handbook
- PHAK

LESSON ELEMENTS:

Aerodynamics

- Four Forces of Flight
- Newton's Laws
- Bernoulli's Principle
- Dynamic & Static Pressure
- Airfoil
    - Airfoil components and definitions
    - Relative wind
    - Vectors Diagram
- Lift Equation: $L=CL^* \frac{1}{2}\rho * V^2 * S$
- Ground effect
- Pilot control of lift
- Types of Airfoil

Stability

- Three axes of flight
- Static and Dynamic Stability
    - Longitudinal stability
    - Lateral stability

    - Directional stability
- Maneuverability and Controllability
- Stalls
- Spins

The lesson continues in the next page

Aerodynamics of maneuvering flight

- Climbing flight
- Left-turning tendencies
- Descending flight
- Turning flight
    - Adverse Yaw
- Load factor
- Stall Awareness

Spins

- Spin Entry
- Spin Aerodynamics
- Spin Recovery Techniques

COMPLETION STANDARDS:

- Demonstrate understanding of aerodynamic principles during oral quizzing by instructor at completion of lesson.

Ground Lesson 4: Airport operations, charts & airspace

OBJECTIVES:

- Understand important safety considerations, including collision avoidance precautions, right-of-way rules, minimum safe altitude, and runway incursion avoidance.
- Become familiar with airport markings and lighting, aeronautical charts, and types of airspace.

SCHEDULE: 4.0 h self-study + 1.5 h 1-on-1
MATERIAL REQUIRED:

- FAR/AIM
- Appropriate Sectional Chart

LESSON ELEMENTS:

Safety of flight

- Collision avoidance and visual scanning
- Airport operations
- Right-of-way rules
- Minimum safe altitude
- Taxiing in wind
- Positive exchange of flight controls
- SOP: Stabilized Approach & Bounce-and-Go policy

Airports

- Controlled and uncontrolled
- Runway layout
- Traffic pattern
- Airport visual aids
- Airport markings and lighting
- Ramp area hand signals
- Runway incursion avoidance
- Land and hold short operations (LAHSO)
- Visual glideslope indications
- Approach lighting systems
- Pilot-controlled lighting

The lesson continues in the next page

Aeronautical charts

- Latitude and longitude
- Projections
- Sectional charts
- Terminal area charts and IFR low-altitude charts (awareness)
- Chart symbols

Airspace

- Categories
  - Regulatory and non-regulatory
- Airspace Classes
  - Uncontrolled airspace: Class G
  - Controlled airspace: Class E, D, C, B, A
- Special VFR
- Special use airspace/Other airspace areas
- Emergency air traffic rules
- Air defense identification zone (ADIZ)

COMPLETION STANDARDS:

- Demonstrate understanding of the flight environment during oral quizzing by instructor at completion of lesson.

Ground Lesson 5: Communications & sources of flight information

OBJECTIVES:

- Become familiar with radar, transponder operations, and FAA radar equipment and services for VFR aircraft.
- Understand the types of service provided by an FSS.
- 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.

SCHEDULE: 4.0 h self-study + 1.0 h 1-on-1

MATERIAL REQUIRED:

- Airplane Flying Handbook
- FAR/AIM
- Chart Supplement

LESSON ELEMENTS:

Radar and ATC services

- Radar
- Transponder operation
- FAA radar systems
- VFR radar services
- Automated terminal information service (ATIS)
- Flight service stations
- VHF direction finder assistance

Radio procedures

- VFR communication equipment
- Using the radio
- Phonetic alphabet
- Coordinated universal time (Zulu)
- Common traffic advisory frequency (CTAF)
- ATC facilities and controlled airports
- Lost communication procedures
- Emergency procedures
- Emergency locator transmitters (ELTs)

Sources of flight information

- Chart Supplement
  - Runway Lengths at Airports
  - Fuel Services – Full Service, Self Service, and Fixed Base Operators (FBO)
- Federal Aviation Regulations
  - Fuel Requirements
- Aeronautical Information Manual (AIM)
- Notices to Airmen (NOTAMs)
- Advisory circulars

COMPLETION STANDARDS:

- Demonstrate understanding of communication and flight information during oral quizzing by instructor at completion of lesson.

Ground Lesson 6: Stage Exam

OBJECTIVES:

- Demonstrate comprehension of the material presented in Private Pilot Stage 1.

SCHEDULE: **2.0 Hours**

LESSON ELEMENTS:

Private Stage 1 Exam

- Airplane systems
- Aerodynamic principles
- The flight environment
- Communication and flight information

COMPLETION STANDARDS:

- The lesson and stage are complete when the student has completed the Stage 1 Exam with a minimum score of 80%. Also, the instructor has reviewed each incorrect response to ensure complete understanding before progressing to the next stage.

Stage 2 – Ground Lessons

OBJECTIVES:

- During this stage, the student will become familiar with weather theory, typical weather patterns, and aviation weather hazards. Also, the trainee will learn how to obtain and interpret various weather reports, forecasts, and graphic charts. Finally, the student will focus on cross country planning, ADM, and regulations as they apply to private pilot operations.

COMPLETION STANDARDS:

- This stage is complete when the student has taken the Private Stage 2 written exam and final written exam with a minimum passing score of 80%. Also, the instructor has reviewed each incorrect response to ensure complete understanding before the student progresses to the next stage.

EXPECTATIONS:

- The Student is expected to review and study the lessons' related material and attend class prepared to progress through the course.

Ground Lesson 7: Weather theory

OBJECTIVES:

- Learn the theory of weather phenomena, frontal systems, and hazardous weather conditions.
- 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.

SCHEDULE: 2.0 h self-study + 1.0 h 1-on-1

MATERIAL REQUIRED:

- AC 00-6B

LESSON ELEMENTS:

Weather theory

- The atmosphere
- Atmospheric circulation
- Atmospheric pressure
- Coriolis force
- Global wind patterns
- Local wind patterns

Weather patterns

- Atmospheric stability
- Temperature inversions
- Moisture
- Humidity
- Dew point
- Clouds and fog
- Precipitation
- Air masses
- Fronts

Weather hazards

- Thunderstorms
- Turbulence
- Wake turbulence
- Wind shear
- Microburst
- Icing
- Restrictions to visibility
- Volcanic ash

COMPLETION STANDARDS:

- Demonstrate understanding of meteorology during oral quizzing by instructor at completion of lesson.

Ground Lesson 8: Weather reports and forecasts

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 and use the weather information to exercise sound ADM.

SCHEDULE: 4.0 h self-study + 1.5 h 1-on-1

MATERIAL REQUIRED:

- AC 00-45H

LESSON ELEMENTS:

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 Graphical Area Forecast (GFA)
- Winds and temperature aloft forecast
- Severe weather reports and forecasts
- AIRMET/SIGMET/Convective SIGMET

Graphical reports and forecasts

- NEXRAD radar mosaic
- Satellite weather pictures
- Low-level significant weather prognostic chart
- 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
- In-flight weather: FIS-B (ADS-B In) and Flight Service
- Weather radar services
- Automated weather reporting systems

COMPLETION STANDARDS:

- Demonstrate understanding of weather data sources during oral quizzing by instructor at completion of lesson.

Ground Lesson 9: Performance, weight & balance and flight computers

OBJECTIVES:

- Learn how to use data supplied by the manufacturer to predict airplane performance, including takeoff, 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.

SCHEDULE: 6.0 h self-study + 1.5 h 1-on-1

MATERIAL REQUIRED:

- POH
- PHAK

LESSON ELEMENTS:

Predicting performance

- Aircraft performance and design
- 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 and 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 of airplane performance during oral quizzing by instructor at completion of lesson.

Ground Lesson 10: Pilotage, dead reckoning and radio 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 flight plan, VFR cruising altitudes, and lost procedures.
- Gain a basic understanding of VFR navigation using pilotage, dead reckoning, and navigation systems.

SCHEDULE: 4.0 h self-study + 1.0 h 1-on-1

MATERIAL REQUIRED:

- PHAK

LESSON ELEMENTS:

Pilotage and dead reckoning

- Pilotage
- Dead reckoning
- Flight planning and flight plan
- VFR cruising altitudes
- 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 (HSI)
- Distance measuring equipment (DME)

GPS navigation

- GPS receivers and database currency
- Direct-to and flight plan navigation
- Course deviation indications and moving maps
- RAIM, signal outages, and GPS precautions

Advanced navigation

- Area navigation (RNAV) concepts
- Electronic flight bag (EFB) use with ForeFlight
- ADS-B In traffic and weather

COMPLETION STANDARDS:

- Demonstrate understanding of navigation during oral quizzing by instructor at completion of lesson.

Ground Lesson 11: Cross-country planning

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.

SCHEDULE: 3.0 h self-study + 1.5 h 1-on-1

MATERIAL REQUIRED:

- Appropriate Sectional Chart
- Proper Chart Supplement
- Navigation Log
- Flight computer

LESSON ELEMENTS:

The flight planning process

- Developing the route
- Preflight weather briefing
- Completing the navigation log
- Flight plan
- Preflight inspection

COMPLETION STANDARDS:

- Demonstrate understanding of cross-country planning during oral quizzing by instructor at completion of lesson.

Ground Lesson 12: Federal Aviation Regulations

OBJECTIVES:

- Understand the Federal Aviation Regulations appropriate to a Private Pilot.
- Gain specific knowledge of those regulations which govern student solo flight operations, private pilot privileges, limitations, and National Transportation Safety Board (NTSB) accident reporting requirements.
- Understand the performance standards required for the Practical Test.

SCHEDULE: **4.0 h self-study + 1.0 h 1-on-1**

MATERIAL REQUIRED:

- FAR/AIM
- Private Pilot ACS

LESSON ELEMENTS:

- Introduction to Code of Federal Regulations (CFR)
  - 14 CFR
  - 49 CFR
- 14 CFR Part 1
- 14 CFR Part 61
- 14 CFR Part 91
- 49 CFR Part 1552 (TSA flight training security)
- 49 CFR Part 830 (NTSB definitions and reports)
- Private Pilot Airman Certification Standards (ACS)

COMPLETION STANDARDS:

- Demonstrate understanding of private pilot regulations during oral quizzing by instructor at completion of lesson.

Ground Lesson 13: Physiology and aeronautical decision making

OBJECTIVES:

- Gain 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.

SCHEDULE: **2.0 h self-study + 1.0 h 1-on-1**

MATERIAL REQUIRED:

- PHAK
- Airplane Flying Handbook

LESSON ELEMENTS:

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 of human factors principles during oral quizzing by instructor at completion of lesson.

Ground Lesson 14: Stage exam

OBJECTIVES:

- Demonstrate comprehension of material presented in Private Pilot Stage 2.

SCHEDULE: **2.0 Hours**

LESSON ELEMENTS:

Private Pilot Stage 2 Exam

- Meteorology
- Interpreting weather data
- Federal aviation regulations
- Airplane performance
- Navigation
- Human factors principles
- Aeronautical decision making
- Flying cross-country

COMPLETION STANDARDS:

- The lesson and stage are complete when the student has completed the Private Pilot Stage 2 Exam with a minimum score of 80%. Also, the instructor has reviewed each incorrect answer to ensure complete understanding before the student proceeds to the end-of-course exam.

Ground Lesson 15: End-of-course exam

OBJECTIVES:

- Demonstrate comprehension of material presented in stage 1 and Stage 2 in preparation for the FAA Private Pilot knowledge test.

SCHEDULE: **2.0 Hours**

LESSON ELEMENTS:

Private Pilot End-of-course Exam

- Airplane systems
- Aerodynamic principles
- The flight environment
- Communications and flight information
- Meteorology
- Interpreting weather data
- Federal aviation regulations
- Airplane performance
- Navigation
- Human factors principles
- Aeronautical decision making
- Flying cross-country

COMPLETION STANDARDS:

- The lesson and ground portion of the course are complete when the student has completed the Private Pilot End-of-course Exam with a minimum passing score of 80%.Also, the instructor has reviewed each incorrect answer to ensure complete understanding before the student takes the FAA Private Pilot knowledge test.

Stage 1 – Flight Lessons

INTRODUCTION:

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

COMPLETION STANDARDS:

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

OBJECTIVES:

During this stage, the student obtains the foundation for all future aviation training. The trainee will become familiar with the aircraft and learn how the airplane controls are used to establish and maintain specific flight attitudes and ground tracks. At the completion of stage 1, the student will be prepared to fly solo.

COMPLETION STANDARDS:

At the completion of this stage, the student will demonstrate proficiency in basic flight maneuvers and emergency procedures. The student will demonstrate acceptable standards to solo and to move on more advanced maneuvers.

Flight Lesson 1 – Dual Local

Preflight Brief	Solo	Dual	Post Brief
0.8		1.0	0.2

LESSON SEQUENCE:

OBJECTIVES:

- Become familiar with the airplane and its systems.
- Learn about certificates, documents, and checklists. Understand how to conduct the necessary pre-flight activities.
- Learn about the functions and feel of the flight controls, and how they are used to maintain specific attitudes.
- Understand how to conduct the necessary post-flight activities.

LESSON ELEMENTS:

Preflight Discussion	New Elements this Flight	Review Elements this Flight
❑ Fitness for flight	❑ Use of Checklists	
❑ Positive Exchange of Flight Controls	❑ Pre-flight Inspection	
❑ Certificates and documents	❑ Certificates and Documents	
❑ Airplane logbooks	❑ Airworthiness Requirements	
❑ Airplane servicing	❑ Positive Exchange of Flight Controls	
❑ Fuel grades	❑ Normal Takeoff and Climb	
❑ Use of the Flight Controls	❑ Straight-and-Level Flight	
❑ Performance and Limitations	❑ Stable aircraft, Hands off flight	
❑ Weather and NOTAM information	❑ Climbs, Descents, and Level Offs	
	❑ Medium Banked Turns in Both Directions	
	❑ Normal Approach and Landing	
	❑ After Landing Procedures	
	❑ Parking and Securing the Airplane	

	❑ Post-Flight Procedures	

COMPLETION STANDARDS:

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

Flight Lesson 2 – Dual Local

Preflight Brief	Solo	Dual	Post Brief
0.3		2.0	0.2

LESSON SEQUENCE:

OBJECTIVES:

- Review procedures and maneuvers introduced in Flight Lesson 1, especially preflight activities, ground operations, and attitude control during basic maneuvers using visual reference.
- Introduce starting and taxi procedures.

LESSON ELEMENTS:

Preflight Discussion	New Elements this Flight	Review Elements this Flight
❑ Preflight activities	❑ Location of First Aid Kit	❑ Preflight Inspection
❑ Engine Starting	❑ Location of Fire Extinguisher	❑ Airplane Servicing
❑ Airport, Runway, and Taxiway signs, Markings, and Lighting	❑ Engine Start	❑ Positive Exchange of Flight Controls
❑ Ground operations, including crosswind correction	❑ Radio Communications	❑ Parking and Securing the Airplane
❑ Collision avoidance precautions	❑ Taxi	❑ Post Flight Procedures
❑ Airspeed and configurations changes	❑ Before Takeoff Check	
❑ Aircraft Stability, proper use of Trim	❑ Proper Use of Trim	
❑ Pitch and Power relationship and management.		
❑ Aircraft Power and Configuration Table		
❑ Performance and Limitations		
❑ Weather and NOTAM information		

COMPLETION STANDARDS:

- Display increase proficiency in preflight activities, ground operation.
- Perform takeoffs with minimal instructor assistance.

- Maintain ± 250 feet of assigned altitude during airspeed and configuration changes.
- Demonstrates knowledge of aircraft stability and proper trim use.
- Exhibit understanding of attitude control by visual reference.

Flight Lesson 3 – Dual Local

LESSON SEQUENCE:

Preflight Brief	Solo	Dual	**Instrument**	**Post Brief**
0.3		2.0	0.5	0.2

OBJECTIVES:

- Review airspeed control during basic maneuvers and traffic pattern operations.
- Practice airspeed and configuration changes and introduce slow flight.
- Introduce attitude control by instrument reference.

LESSON ELEMENTS:

Preflight Discussion	New Elements this Flight	Review Elements this Flight
❑ Situational awareness.	❑ Changes in airspeed and configurations.	❑ Use of Check Lists
❑ Basic Instrument Scan and maneuvers.	❑ Entry into and recovery from Slow Flight	❑ Positive Exchange of Flight Controls
❑ Preflight planning, operation of power plant, aircraft systems, and engine run-up procedures	❑ Basic Instrument attitude flight	❑ Normal Approach and Landing
❑ Slow flight		❑ After Landing Procedures
❑ Visual scanning and collision avoidance precautions		❑ Parking and Securing the Airplane
❑ Wind shear and wake turbulence avoidance procedures.		❑ Post Flight Procedures
❑ Airspeed and configurations changes		
❑ Aircraft Stability, proper use of trim		
❑ Pitch and Power relationship and management.		
❑ Radio Communications		
❑ Performance and Limitations		
❑ Weather and NOTAM information		

COMPLETION STANDARDS:

- Increased proficiency in airplane attitude control during basic maneuvers.
- Perform takeoffs without instructor assistance.
- Perform Landings with instructor's assistance
- Maintain altitude within ± 250 feet during airspeed and configuration changes.

- Displays basic ability to control attitude by instrument reference.

Flight Lesson 4 – Dual Local

Preflight Brief	Solo	Dual	Post Brief
0.3		1.5	0.2

LESSON SEQUENCE:

OBJECTIVES:

- Practice Review Elements to gain additional proficiency.
- Practice airspeed and configuration changes.

LESSON ELEMENTS:

Preflight Discussion	New Elements this Flight	Review Elements this Flight
❑ Wake Turbulence avoidance	❑ Normal approach Speed and configuration	❑ Radio Communications
❑ Workload management	❑ Airport, Runway, and Taxiway signs, Markings, and Lighting	❑ Taxiing
❑ Pilot-in-command responsibilities	❑ Crosswind Taxi	❑ Before Takeoff Check
❑ Radio communications	❑ Collision Avoidance Precautions	❑ Normal Approach and Landing
❑ Performance and Limitations	❑ Changes in speed and configurations	❑ Post Flight Procedures
❑ Weather and NOTAM information		

COMPLETION STANDARDS:

- Landings are completed with instructors assistance
- Perform unassisted takeoffs

Flight Lesson 5 – Dual Local

Preflight Brief	Solo	Dual	Post Brief
0.3		1.5	0.2

LESSON SEQUENCE:

OBJECTIVES:

- Practice airspeed and configuration changes.
- Introduce Stalls (straight and level and turning stalls).

LESSON ELEMENTS:

Preflight Discussion	New Elements this Flight	Review Elements this Flight
❑ Stalls: • Straight and level and turning stalls ❑ Spin Awareness ❑ Traffic Pattern Operations ❑ Performance and Limitations ❑ Weather and NOTAM information	❑ Normal Approach and Landing ❑ Traffic Patterns ❑ Maneuvers during Slow Flight ❑ Power-off Stalls from straight and level ❑ Power-off Stalls in a turn ❑ Power-on Stalls from straight and level ❑ Power-on Stalls in a turn ❑ Power off gliding	❑ Post Flight Procedures

COMPLETION STANDARDS:

- Perform unassisted takeoffs
- Demonstrate slow flight (entry, maneuvering, and recovery) while maintaining the assigned altitude within ± 250 feet.
- Demonstrate proper communications and traffic pattern procedures.
- Landing completed with instructors assistance

Flight Lesson 6 – Dual Local

Preflight Brief	Solo	Dual	Post Brief
0.3		1.5	0.2

LESSON SEQUENCE:

OBJECTIVES:

- Practice stalls.
- Introduce ground reference maneuvers.

LESSON ELEMENTS:

Preflight Discussion	New Elements this Flight	Review Elements this Flight
❑ Collision Avoidance	❑ Rectangular Course	❑ Use of Check Lists
❑ Stalls	❑ Turns around a point	❑ Normal Takeoff and Climb
❑ ground reference maneuvers		❑ Straight-and-Level Flight
❑ Performance and Limitations		❑ Climbs, Descents, and Level Offs
❑ Weather and NOTAM information		❑ Power-off Stalls
		❑ Power-on Stalls
		❑ After Landing Procedures, Parking and Securing the Airplane
		❑ Post Flight Procedures

COMPLETION STANDARDS:

- The student recognizes the onset of a stall and uses proper technique to maintain directional control during recovery.
- The student is able to Take off and depart the airport, perform the listed maneuvers with minimal guidance from the instructor.
- The student can land with minimal instructors' assistance.

Flight Lesson 7 – Dual Local

Preflight Brief	Solo	Dual	Post Brief
0.3		1.5	0.2

LESSON SEQUENCE:

OBJECTIVES:

- Practice Traffic Patterns.
- Introduction to go – around operations.
- Introduction to S-turns.

LESSON ELEMENTS:

Preflight Discussion	New Elements this Flight	Review Elements this Flight
❑ Go – Around	❑ Go-Around	❑ Slow flight
❑ S-turns	❑ S Turns	❑ Power-off Stalls
❑ Performance and Limitations		❑ Power-on Stalls
❑ Weather and NOTAM information		❑ Distractions during flight
		❑ Normal Approach and Landing
		❑ After Landing Procedures, Parking and Securing the Airplane
		❑ Post Flight Procedures

COMPLETION STANDARDS:

- The student identifies when to execute a go around maneuver.
- The student performs landings with minimal instructors' assistance.

Flight Lesson 8 – Dual Local

Preflight Brief	Solo	Dual	Post Brief
0.3		1.5	0.2

LESSON SEQUENCE:

OBJECTIVES:

- Practice Traffic Pattern operations.
- Introduction to Emergency operations.
- Introduction Cross-wind Take-off and landings.

LESSON ELEMENTS:

Preflight Discussion	New Elements this Flight	Review Elements this Flight
❑ Engine Failures	❑ Cross wind take offs	❑ Traffic Patterns
❑ ATC Light Gun signals	❑ Cross wind landings	❑ Normal Approach and Landing
❑ Lost communication procedures	❑ Engine Failures – simulated	❑ Go – Around
❑ Performance and Limitations	❑ Emergency Descent	❑ Ground Reference Maneuvers
❑ Weather and NOTAM information	❑ Power-off gliding	❑ Post Flight Procedures

COMPLETION STANDARDS:

- Display understanding of cross-wind control on the ground and in the air.
- The student will have an understanding of priorities during Emergency operations.
- The student identifies when to execute a go around maneuver.
- The student performs landings with minimal instructors' assistance.

Flight Lesson 9 – Dual Local

Preflight Brief	Solo	Dual	Instrument	Post Brief
0.3		1.5	0.5	0.2

LESSON SEQUENCE:

OBJECTIVES:

- Practice Traffic Pattern operations.
- Increase instrument flight proficiency
- Introduce systems and equipment malfunction.

LESSON ELEMENTS:

Preflight Discussion	New Elements this Flight	Review Elements this Flight
❑ Instrument Reference flight ❑ ATC Light Signals ❑ System and equipment Malfunctions ❑ Performance and Limitations ❑ Weather and NOTAM information	❑ Turns to headings (Visual and Instrument) ❑ System and equipment Malfunctions	❑ Traffic Patterns ❑ Normal and cross wind Approach and Landing ❑ Go – Around ❑ Power-off gliding ❑ Post Flight Procedures

COMPLETION STANDARDS:

- Display increased proficiency in coordinate airplane attitude control (visual and instrument).
- The student identifies when to execute a go around maneuver.
- The student performs landings with minimal instructors' assistance.

Flight Lesson 10 – Dual Local

Preflight Brief	Solo	Dual	Post Brief
0.3		1.5	0.2

LESSON SEQUENCE:

OBJECTIVES:

- Practice Traffic Pattern operations.
- Introduction to Slips.

LESSON ELEMENTS:

Preflight Discussion	New Elements this Flight	Review Elements this Flight
❑ Slips ❑ Performance and Limitations ❑ Weather and NOTAM information	❑ Slips	❑ Power-off gliding ❑ Traffic Patterns ❑ Normal and cross wind Approach and Landing ❑ Post Flight Procedures

COMPLETION STANDARDS:

- The student performs landings with minimal instructors' assistance.
- The student shows an understanding of how to use slips during flight.

Flight Lesson 11 – Dual Local

Preflight Brief	Solo	Dual	Post Brief
0.3		1.5	0.2

LESSON SEQUENCE:

OBJECTIVES:

- Practice Traffic Pattern operations.
- The student will visit other airports to ensure ability to navigate to and land if needed.
- Review elements as needed in preparation for the stage check.

LESSON ELEMENTS:

Preflight Discussion	New Elements this Flight	Review Elements this Flight
❑ Difference between Controlled and uncontrolled airports	❑ Navigating to near-by airports	❑ Power-off gliding
❑ Airport Operations	❑ Landings at Controlled/Uncontrolled airports.	❑ Traffic Patterns
❑ Emergency services available to pilots	❑ Land and Hold short Operations (LAHSO)	❑ Normal and cross wind Approach and Landing
❑ Land and Hold short Operations (LAHSO)	❑ Runway Incursion Avoidance	❑ Go – Around
❑ Runway Incursion Avoidance		❑ Slips
❑ Performance and Limitations		❑ Post Flight Procedures
❑ Weather and NOTAM information		

COMPLETION STANDARDS:

- Demonstrate ability to locate an airport that is not the primary training airport and land if required.
- Display ability to operate at both controlled and uncontrolled airfields.
- The student performs landings without instructors' assistance.
- The student demonstrates knowledge and skills adequate to conduct safe solo operations in the local training area.

Flight Lesson 12 – Dual Local

Preflight Brief	Solo	Dual	Post Brief
0.3		1.0	0.2

LESSON SEQUENCE:

OBJECTIVES:

- Review elements as needed in preparation for the stage check.

LESSON ELEMENTS:

Preflight Discussion	New Elements this Flight	Review Elements this Flight
❑ Performance and Limitations ❑ Weather and NOTAM information	❑ Stage check preparation	❑ Normal approach and landing

COMPLETION STANDARDS:

- The student performs landings without instructors' assistance.
- The student demonstrates knowledge and skills adequate to conduct safe solo operations in the local training area.

Flight Lesson 13 – Stage Check – Dual Local

Preflight Brief	Solo	Dual	Post Brief
2.0		2.0	0.3

LESSON SEQUENCE:

OBJECTIVES:

- Verify that the students' knowledge and skills are adequate to conduct safe solo operations in the local training area.

LESSON ELEMENTS:

Preflight Discussion	New Elements this Flight	Review Elements this Flight
❑ Student meets requirements ❑ Applicable documents • Pilot and Aircraft ❑ Airworthiness ❑ Performance and Limitations ❑ Applicable regulations ❑ Maneuver scenarios ❑ Emergency Procedures ❑ Weather and NOTAM information ❑ Land and Hold short Operations (LAHSO) ❑ Systems and Equipment Malfunctions ❑ Collision avoidance Precautions ❑ Wake turbulence Avoidance ❑ Spin Awareness ❑ Runway Incursion Avoidance		❑ Preflight operations ❑ Operation of Systems ❑ Airworthiness requirements ❑ 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 leading to stalls situation ❑ Spin Awareness ❑ Power-Off Stalls ❑ Power-On Stalls ❑ Ground Reference Maneuvers ❑ Emergency Approach and Landing

		(Simulated) ❑ Normal Approach and Landing ❑ Forward Slips to a Landing ❑ Go-Around/Rejected Landing ❑ Runway Incursion Avoidance ❑ Post Flight Procedures

COMPLETION STANDARDS:

- This lesson and Stage 1 are complete when the student can perform preflight operations and all other procedures and maneuvers necessary for the safe conduct of solo operations in the local training area.
- Altitude is maintained ±150 feet.
- Headings are maintained ±15 degrees.
- Airspeed is maintained ±10 knots.
- The pre-solo flight training required by 14 CFR 61.87(d) has been completed and logged, including ground reference maneuvers, slips to a landing, go-arounds, and approaches to a landing area with simulated engine malfunctions.
- The pre-solo knowledge test (14 CFR 61.87(b)) has been completed and every incorrect answer reviewed; the student pilot certificate and medical certificate have been verified.

Stage 2 – Flight Lessons

OBJECTIVES:

This stage allows the student to expand the skills learned in the previous stage. The student will perform the solo flights, progress to the night flight, and complete the cross-country training. Additionally, greater emphasis is placed on attitude control by instrument reference to increase the student's overall situational awareness and competence. The trainee will learn how to plan and conduct cross-country flights using pilotage, dead reckoning, radio navigation systems, and how to safely operate in the National Airspace System.

COMPLETION STANDARDS:

Stage 2 and the Private Pilot Certification course are complete when the student can accurately plan and conduct cross-country flights, meets the current Private Pilot – Airplane ACS, and has logged the aeronautical experience required by 14 CFR 61.109(a).

Flight Lesson 14 – First Solo – Dual/Solo Local

Preflight Brief	Solo	Dual	Post Brief
0.3	0.5	1.0	0.2

LESSON SEQUENCE:

OBJECTIVES:

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

LESSON ELEMENTS:

Preflight Discussion	New Elements this Flight	Review Elements this Flight
❑ Student questions ❑ Student Pilot supervised solo flight operation in the local traffic pattern ❑ Performance and Limitations ❑ Weather and NOTAM information	Supervised Solo ❑ Radio Communications ❑ Normal and/or Crosswind Taxiing ❑ Before Takeoff Check ❑ Normal Takeoffs (3) ❑ Traffic Patterns ❑ Normal Approaches and Landings (3) ❑ After Landing, Parking, and Securing.	❑ Engine Starting ❑ Radio Communications ❑ Normal and/or Crosswind Taxiing ❑ Before Takeoff Check ❑ Normal Takeoffs ❑ Traffic Patterns ❑ Go-Around/Rejected Landing ❑ Normal Landings ❑ Post Flight Procedures

COMPLETION STANDARDS:

- The student has the ability to safely fly solo in the traffic pattern.
- The safety of the flight is never in question.
- Complete solo flight in the local traffic pattern as directed by the instructor.
- Pre-solo flight training and solo endorsements for the make and model have been completed and logged before the solo portion (14 CFR 61.87(b), (c), (n)).

Flight Lesson 15 – Solo Local

Preflight Brief	Solo	Dual	Post Brief
0.3	1.5		0.2

LESSON SEQUENCE:

OBJECTIVES:

- During this lesson, the student will perform the first solo flight outside of the traffic pattern to the practice area.

LESSON ELEMENTS:

Preflight Discussion	New Elements this Flight	Review Elements this Flight
❑ Student questions ❑ Student Pilot solo flight operation in the local practice area ❑ Performance and Limitations ❑ Weather and NOTAM information	Solo Flight ❑ Normal Takeoffs ❑ Departure to practice area ❑ Return to airport ❑ Basic maneuvers ❑ Traffic Patterns	❑ Post Flight Procedures

COMPLETION STANDARDS:

- The student displays the ability to fly solo safely to the practice area and back.
- Complete the solo flight in the local practice area as directed by the instructor.

Flight Lesson 16 – Dual Local

Preflight Brief	Solo	Dual	Post Brief
0.3		1.5	0.2

LESSON SEQUENCE:

OBJECTIVES:

- During this lesson the student will be introduced to Short and soft field take-off and landing.
- Review of emergency procedures.
- Apply short-field technique to X04's 3,284 ft runway, including the 241 ft displaced threshold on Runway 15.

LESSON ELEMENTS:

Preflight Discussion	New Elements this Flight	Review Elements this Flight
❑ Weight and Balance Computation ❑ Performance Estimates ❑ Effects of density altitude ❑ Short field take-off ❑ Short field landing ❑ Soft field take-off ❑ Soft field landing ❑ Performance and Limitations ❑ Weather and NOTAM information	❑ Short field take-off ❑ Short field landing ❑ Soft field take-off ❑ Soft field landing	❑ Emergency operations ❑ Slips to landing ❑ Post Flight Procedures

COMPLETION STANDARDS:

- The student understands the conditions that require short and soft field operations.
- The student understands the effects of density altitude on the take-off and landing distance.
- The student understands the techniques used to perform short and soft field operations.

Flight Lesson 17 – Dual Local

Preflight Brief	Solo	Dual	Post Brief
0.3		1.5	0.2

LESSON SEQUENCE:

OBJECTIVES:

- During this lesson the student will be introduced to radio navigation.
- Introduction to the use of the VOR and GPS as tools to find locations.
- Instrument reference: basic attitude flying and recovery from unusual attitudes by reference to instruments.

LESSON ELEMENTS:

Preflight Discussion	New Elements this Flight	Review Elements this Flight
❑ Navigation Radio operation	❑ VOR Orientation	❑ Instrument Attitude Flight (VR-IR)
❑ VOR Orientation	❑ VOR Tracking	❑ Post Flight Procedures
❑ VOR Tracking	❑ Unusual attitude/ Upset Recovery	
❑ Unusual attitude/ Upset Recovery		
❑ Performance and Limitations		
❑ Weather and NOTAM information		

COMPLETION STANDARDS:

- The student demonstrates understanding of VOR operations.
- The student displays appropriate Unusual Attitude/Upset Recovery Techniques.

Flight Lesson 18 – Dual XC

Preflight Brief	Solo	Dual	Instrument	Post Brief
0.7		2.5	1.0	0.3

LESSON SEQUENCE:

OBJECTIVES:

- Introduction to cross-country procedures and techniques to be used during flights outside of the local training area, including Radio Navigation and Radar Services under simulated instrument flight conditions.
- Prepare the student to perform cross-country flights during solo operations.
- Review emergency operations.

LESSON ELEMENTS:

Preflight Discussion	New Elements this Flight	Review Elements this Flight
❑ Sectional charts	❑ Flight Plan considerations	❑ Emergency Operations, including Emergency Descent
❑ Route selection and basic navigation procedures	❑ Departure	❑ Systems and Equipment Malfunctions
❑ Weather information	❑ Opening Flight Plan	❑ Runway Incursion Avoidance
❑ Fuel requirements	❑ Course Interception	❑ Emergency Approach and Landing (simulated)
❑ Performance and limitations	❑ Pilotage	❑ Emergency Equipment and Survival Gear
❑ Navigation log	❑ Dead Reckoning	❑ Post Flight Procedures
❑ FAA flight plan (how to open , close, or amend)	❑ VOR Navigation	
❑ Weight and balance	❑ Use of Radar Services	
❑ Cockpit management	❑ Power Settings and mixture control	
❑ Aeromedical factors	❑ Diversion to an alternate	
❑ Aeronautical decision making	❑ Lost Procedures	
❑ Workload management	❑ Estimates of Ground speed and ETA	
❑ Basic instrument maneuvers and procedures	❑ Position Fix by Navigation Facilities	
❑ Performance and Limitations	❑ Flight on Federal Airways	
	❑ Collision Avoidance Precautions	

❑ Weather and NOTAM information	❑ Closing the flight Plan ❑ National Airspace System ❑ Use of Approach and Departure Control	

COMPLETION STANDARDS:

- The student understands what skills are required to perform solo cross-country flight operations safely.
- The flight includes a point of landing at least a straight-line distance of more than 50 nautical miles.
- The flight includes an arrival and departure at a towered airport and use of Orlando Approach for flight following.

Flight Lesson 19 – Dual XC

Preflight Brief	Solo	Dual	Post Brief
0.8		2.5	0.2

LESSON SEQUENCE:

OBJECTIVES:

- Review cross-country procedures and reinforce skills and knowledge in preparation for solo cross-country operations.
- Review instrument operations.
- Review emergency procedures.

LESSON ELEMENTS:

Preflight Discussion	New Elements this Flight	Review Elements this Flight
❑ Sectional charts		❑ Flight Plan considerations
❑ Flight publications		❑ Departure
❑ Route selection and basic navigation procedures		❑ Opening Flight Plan
❑ Weather information		❑ Course Interception
❑ Fuel requirements		❑ Pilotage
❑ Performance and limitations		❑ Dead Reckoning
❑ Navigation log		❑ VOR Navigation (VR/IR)
❑ FAA flight plan (how to open , close, or amend)		❑ Use of Radar Services (VR/IR)
❑ Weight and balance		❑ Power Settings and mixture control
❑ Cockpit management		❑ Diversion to an alternate
❑ Aeromedical factors		❑ Lost Procedures
❑ Aeronautical decision making		❑ Emergency procedures
❑ Resource use		❑ Estimates of Ground speed and ETA
❑ Workload management		❑ Position Fix by Navigation Facilities
❑ Basic instrument maneuvers and procedures		❑ Flight on Federal Airways

❑ Performance and Limitations ❑ Weather and NOTAM information		❑ Collision Avoidance Precautions ❑ Closing the flight Plan ❑ National Airspace System ❑ Use of Approach and Departure Control ❑ Runway Incursion Avoidance ❑ Emergency Equipment and Survival Gear ❑ Post Flight Procedures

COMPLETION STANDARDS:

- The student demonstrates adequate skills to perform solo cross-country flights safely, including use of navigation systems and radar service under simulated instrument conditions.
- Include a point of landing at least a straight-line distance of more than 50 nautical miles.

Flight Lesson 20 – Solo XC (1)

Preflight Brief	Solo	Dual	Post Brief
0.8	2.5		0.2

LESSON SEQUENCE:

OBJECTIVES:

- Safely complete the first solo cross-country flight, including operations at a towered airport.

LESSON ELEMENTS:

Preflight Discussion	New Elements this Flight	Review Elements this Flight
❑ Required documents and endorsements ❑ Basic VFR weather minimums and airspace rules ❑ Route of flight/alternates ❑ VFR position reports ❑ Review authorized maneuvers ❑ Emergency operations ❑ Lost procedures ❑ Diversion ❑ ETA estimates ❑ Fuel requirements ❑ Lost procedures ❑ Aeronautical decision making ❑ Resource use ❑ Workload management ❑ Situational awareness ❑ Performance and Limitations ❑ Weather and NOTAM information		❑ Sectional charts ❑ Flight Publications ❑ Route Selection Weather Information ❑ Fuel Requirements ❑ Performance and Limitations ❑ Weight and Balance ❑ Navigation Log ❑ FAA Flight Plan ❑ Radio Navigation ❑ Position Fix by Navigation Facilities ❑ Pilotage ❑ Dead Reckoning ❑ Estimates of groundspeed ❑ Estimates of ETA ❑ Operations at unfamiliar Airports ❑ Post Flight Procedures

COMPLETION STANDARDS:

- This lesson is complete when the student has conducted the first solo cross-country flight.
- The flight meets these requirements:
    a. The student is the sole occupant of the aircraft and holds a solo cross-country endorsement for the flight (14 CFR 61.93);
    b. The flight includes a landing at a point more than 50 nautical miles straight-line distance from the original point of departure (14 CFR 61.1);
    c. Three takeoffs and three landings to a full stop, each involving flight in the traffic pattern, are made at an airport with an operating control tower (14 CFR 61.109(a)(5)(iii));
    d. Navigation is by pilotage, dead reckoning, and radio navigation, with flight following when available;
    e. The planned route, fuel, and weather minimums briefed with the instructor are not exceeded.

Flight Lesson 21 – Solo XC (2) – Long Cross-Country

Preflight Brief	Solo	Dual	Post Brief
0.8	3.0		0.2

LESSON SEQUENCE:

OBJECTIVES:

- Complete the long solo cross-country flight required by 14 CFR 61.109(a)(5)(ii).

LESSON ELEMENTS:

Preflight Discussion	New Elements this Flight	Review Elements this Flight
❑ Required documents and endorsements		❑ Sectional charts
❑ Basic VFR weather minimums and airspace rules		❑ Flight Publications
❑ Route of flight/alternates		❑ Route Selection Weather Information
❑ VFR position reports		❑ Fuel Requirements
❑ Review authorized maneuvers		❑ Performance and Limitations
❑ Emergency operations		❑ Weight and Balance
❑ Lost procedures		❑ Navigation Log
❑ Diversion		❑ FAA Flight Plan
❑ ETA estimates		❑ Radio Navigation
❑ Fuel requirements		❑ Position Fix by Navigation Facilities
❑ Lost procedures		❑ Pilotage
❑ Aeronautical decision making		❑ Dead Reckoning
❑ Resource use		❑ Estimates of groundspeed
❑ Workload management		❑ Estimates of ETA
❑ Situational awareness		❑ Operations at unfamiliar Airports
❑ Performance and Limitations		❑ Post Flight Procedures
❑ Weather and NOTAM information		

COMPLETION STANDARDS:

- Complete when the long solo cross-country is flown and solo cross-country time totals 5.0 h or more.
- The flight meets these requirements:
    a. The student is the sole occupant of the aircraft and holds a solo cross-country endorsement for the flight (14 CFR 61.93);
    b. The total distance is at least 150 nautical miles, with full-stop landings at three points;
    c. One segment of the flight is a straight-line distance of more than 50 nautical miles between the takeoff and landing locations;
    d. Navigation is by pilotage, dead reckoning, and radio navigation, with a diversion plan for each leg.

Flight Lesson 22 – Night – Dual Local

Preflight Brief	Solo	Dual	Instrument	Post Brief
0.3		1.5	0.5	0.2

LESSON SEQUENCE:

OBJECTIVES:

- Introduction to night flying.
- Practice Night traffic Patterns, approaches, and landings.
- Emphasize Importance of including instrument reference for maintaining attitude.
- Understanding the physiological factors and additional planning associated with the night environment.

LESSON ELEMENTS:

Preflight Discussion	New Elements this Flight	Review Elements this Flight
❑ Night vision	❑ Preparation for night flying	❑ VOR orientation and tracking
❑ Disorientation	❑ Flight planning considerations	❑ Post Flight Procedures
❑ Visual illusions	❑ Use of checklists	
❑ Night scanning/collision avoidance	❑ Night preflight inspection	
❑ Aircraft, airport, and obstruction lighting	❑ Night airworthiness Requirements	
❑ Personal equipment	❑ Taxiing	
❑ Performance and Limitations	❑ Before Takeoff Check	
❑ Weather and NOTAM information	❑ Normal Takeoffs and Climbs	
	❑ Normal Approaches and Landings	
	❑ Go-Around/Rejected Landing	
	❑ VFR navigation at night	

COMPLETION STANDARDS:

- The students demonstrates understanding of the difference between flying during the day and during the night, terrain avoidance, and night illusions.
- Control altitude ± 150 feet during level turns, straight and level flight, and slow flight.
- Landings are stabilized with touch down at a predetermined area on the runway.

- Complete 5 landings to a full stop (with each landing involving flight in the traffic pattern).

Flight Lesson 23 – Night – Dual X-C

Preflight Brief	Solo	Dual	Instrument	Post Brief
0.7		2.5	0.5	0.3

LESSON SEQUENCE:

OBJECTIVES:

Introduce night navigation and emergency operations.

Understanding the importance of thorough planning and accurate navigation.

LESSON ELEMENTS:

Preflight Discussion	New Elements this Flight	Review Elements this Flight
❑ Night orientation, navigation, and chart reading techniques	❑ Use of Approach and departure control	❑ Preparation for night flight
❑ Weather information	❑ Pilotage	❑ Aeromedical Factors
❑ Route selection	❑ Dead Reckoning	❑ Flight Plan Considerations
❑ Altitude selection	❑ Radio Navigation	❑ Maneuvering During Slow flight
❑ Fuel requirements	❑ Emergency operations	❑ Normal Takeoffs and Climbs
❑ Departure and arrival procedures	❑ Operations at Unfamiliar airports	❑ Normal Approaches and Landings
❑ Performance and Limitations	❑ Collision Avoidance Precautions	❑ Short-Field Takeoffs/Maximum Performance Climbs and Landings
❑ Weather and NOTAM information	❑ Diversion to Alternate	❑ Soft-Field Takeoffs and Landings
	❑ Lost Procedures	❑ Go-Around/Rejected Landing
	❑ Unusual attitude Recoveries	❑ Post Flight Procedures

COMPLETION STANDARDS:

- The student demonstrate an understanding of night cross-country preparation and flight procedures, including ability to maintain attitude by instrument reference.
- The student demonstrates accurate navigation, and simulated emergency situations are handled promptly, demonstrating proper judgment and ADM.
- Landings are stabilized with touch down at a predetermined area on the runway.
- Complete 5 landings to a full stop (with each landing involving flight in the traffic pattern).
- The flight meets these requirements:
    - More than 100 nautical miles total distance (14 CFR 61.109(a)(2)(i));
    - A landing more than 50 nautical miles straight-line distance from the point of departure;

- A total of 10 takeoffs and 10 landings to a full stop at night, each involving flight in the traffic pattern, across Lessons 22 and 23 (14 CFR 61.109(a)(2)(ii)).

Flight Lesson 24 – Dual Local – Review and Practice

Preflight Brief	Solo	Dual	Post Brief
0.3		1.5	0.2

LESSON SEQUENCE:

OBJECTIVES:

- Review the areas of operation, including specified maneuvers and procedures determined by the instructor to increase proficiency to the level required by the Private Pilot ACS.
- Further develop the student's knowledge and skill in preparation for the private pilot practical test.

LESSON ELEMENTS:

Preflight Discussion	New Elements this Flight	Review Elements this Flight
❑ Maneuvers and procedures in preparation	❑ Steep Turns	❑ Preflight preparation
❑ Performance and Limitations		❑ Ground Operations
❑ Weather and NOTAM information		❑ Maneuvering During Slow Flight
		❑ Power-Off and Power-On Stalls
		❑ Ground Reference Maneuvers
		❑ Normal and/or Crosswind Takeoffs and Landings
		❑ Go-Around/Rejected Landing
		❑ Short-Field Takeoffs/Maximum Performance Climbs and Landings
		❑ Soft-Field Takeoffs and Landings
		❑ Forward Slips and Landings
		❑ Emergency Operations, including Emergency Descent
		❑ After Landing, Parking and Securing
		❑ Post Flight Procedures

COMPLETION STANDARDS:

- The student demonstrates proficiency by performing each assigned maneuver to 1 and ½ times criteria established by the Private Pilot Airman Certification Standards.
- The student demonstrate understanding in the execution of steep turns.

- Counts toward the 3 hours of practical test preparation (14 CFR 61.109(a)(4)) when flown within the 2 calendar months before the month of the test.

Flight Lesson 25 – Solo Local

Preflight Brief	Solo	Dual	Post Brief
0.3	1.5		0.2

LESSON SEQUENCE:

OBJECTIVES:

- Build solo time and practice assigned maneuvers in the local practice area.

LESSON ELEMENTS:

Preflight Discussion	New Elements this Flight	Review Elements this Flight
❑ Student questions ❑ Student Pilot supervised solo flight operation in the local practice area ❑ Performance and Limitations ❑ Weather and NOTAM information	❑ Normal Takeoffs ❑ Departure to practice area ❑ Return to airport ❑ Basic maneuvers ❑ Traffic Patterns	❑ Post Flight Procedures

COMPLETION STANDARDS:

- The lesson is complete when the student performs a safe solo flight that includes the maneuvers assigned by the instructor.
- Solo time is tracked toward the 10 hours required by 14 CFR 61.109(a)(5).

Flight Lesson 26 – Dual Local – Review and Practice

Preflight Brief	Solo	Dual	Post Brief
0.3		1.5	0.2

LESSON SEQUENCE:

OBJECTIVES:

- Review the areas of operation and 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.

LESSON ELEMENTS:

Preflight Discussion	Review Elements this Flight	Review Elements this Flight
❑ Unusual Attitude/Upset Recovery Training	❑ Preflight preparation	❑ Normal and/or Crosswind Takeoffs and Landings
❑ Maneuvers and procedures in preparation for the practical test	❑ Ground Operations	❑ Go-Around/Rejected Landing
❑ Performance and Limitations	❑ Maneuvering During Slow Flight	❑ Short-Field Takeoffs/Maximum Performance Climbs and Landings
❑ Weather and NOTAM information	❑ Basic instrument attitude flying	❑ Soft-Field Takeoffs and Landings
	❑ Power-Off and Power-On Stalls	❑ Forward Slips and Landings
	❑ Steep Turns	❑ Emergency Operations, including Emergency Descent
	❑ Ground Reference Maneuvers	❑ After Landing, Parking and Securing
		❑ Post Flight Procedures

COMPLETION STANDARDS:

- The student demonstrates proficiency by performing each assigned maneuver to 1 and ½ times criteria established by the Private Pilot Airman Certification Standards.
- Counts toward the 3 hours of practical test preparation (14 CFR 61.109(a)(4)) when flown within the 2 calendar months before the month of the test.

Flight Lesson 27 – Solo Local – Practice

Preflight Brief	Solo	Dual	Post Brief
0.3	1.5		0.2

LESSON SEQUENCE:

OBJECTIVES:

- Build solo time and practice assigned maneuvers in the local practice area.

LESSON ELEMENTS:

Preflight Discussion	New Elements this Flight	Review Elements this Flight
❑ Student questions ❑ Student Pilot supervised solo flight operation in the local practice area ❑ Performance and Limitations ❑ Weather and NOTAM information	❑ Normal Takeoffs ❑ Departure to practice area ❑ Return to airport ❑ Basic maneuvers ❑ Traffic Patterns	❑ Post Flight Procedures

COMPLETION STANDARDS:

- The lesson is complete when the student performs a safe solo flight that includes the maneuvers assigned by the instructor.
- By the end of this lesson the student has logged at least 10 hours of solo flight time, including at least 5 hours of solo cross-country.

Flight Lesson 28 – Dual Local – Review and Practice

Preflight Brief	Solo	Dual	Post Brief
0.3		1.5	0.2

LESSON SEQUENCE:

OBJECTIVES:

- Review the areas of operation and 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.

LESSON ELEMENTS:

Preflight Discussion	Review Elements this Flight	Review Elements this Flight
❑ Unusual Attitude/Upset Recovery Training	❑ Preflight preparation	❑ Normal and/or Crosswind Takeoffs and Landings
❑ Maneuvers and procedures in preparation for the practical test	❑ Ground Operations	❑ Go-Around/Rejected Landing
❑ Performance and Limitations	❑ Maneuvering During Slow Flight	❑ Short-Field Takeoffs/Maximum Performance Climbs and Landings
❑ Weather and NOTAM information	❑ Basic instrument attitude flying	❑ Soft-Field Takeoffs and Landings
	❑ Power-Off and Power-On Stalls	❑ Forward Slips and Landings
	❑ Steep Turns	❑ Emergency Operations, including Emergency Descent
	❑ Ground Reference Maneuvers	❑ After Landing, Parking and Securing
		❑ Post Flight Procedures

COMPLETION STANDARDS:

- The student demonstrates proficiency by performing each assigned maneuver to 1 and ½ times criteria established by the Private Pilot Airman Certification Standards.
- Counts toward the 3 hours of practical test preparation (14 CFR 61.109(a)(4)) when flown within the 2 calendar months before the month of the test.

Flight Lesson 29 – Stage Check – End of Course

Preflight Brief	Solo	Dual	Post Brief
2.5		2.0	0.4

LESSON SEQUENCE:

OBJECTIVES:

- This end-of-course check, conducted by the chief instructor, determines whether the student is prepared for the Private Pilot practical test.

LESSON ELEMENTS:

Preflight Discussion	Review Elements this Flight	Review Elements continued
❑ Certificates and documents	❑ Preflight Inspection	❑ Short-Field Takeoffs/Maximum Performance Climbs
❑ Airworthiness Requirements	❑ Cockpit management	❑ Soft Field Takeoff
❑ Weather information	❑ Use of Checklists	❑ Maneuvering During Slow Flight
❑ Cross-Country Flight Planning	❑ Engine Starting	❑ Power-Off and Power-On Stalls
❑ Operation of Systems	❑ Taxiing	❑ Steep Turns
❑ Aeromedical Factors	❑ Before Takeoff Check	❑ Ground Reference Maneuvers
❑ National Airspace System	❑ Radio communications	❑ Using Radio communications, Navigational Systems/Facilities, and Radar Services
❑ Pilotage and Dead Reckoning	❑ ATC Light Signals	❑ Basic Attitude Flight (VR-IR)
❑ Radio Navigation	❑ Collision Avoidance Precautions	❑ Airport Operations
❑ Diversion to an Alternate	❑ Low-Level Wind Shear Precautions	❑ Go-Around/Rejected Landing
❑ Lost Procedures	❑ Wake Turbulence Avoidance	❑ Forward Slips and Landings
❑ Maneuvers	❑ Airport, Runway , and Taxiway Signs, Markings, and Lighting	❑ Emergency Operations, including Emergency Descent
❑ Procedures	❑ Normal and Crosswind Takeoffs and Climbs	❑ Normal and Crosswind Landings
❑ Acceptable performance criteria		❑ Short-Field Landings
❑ Applicable regulations		❑ Soft-Field Landings
❑ Performance and Limitations		
❑ Weather and NOTAM information		

		❑ After Landing, Parking and Securing ❑ Post Flight Procedures

COMPLETION STANDARDS:

- The student demonstrates proficiency that meets or exceeds the standard of performance outlined in the current FAA Private Pilot Airman Certification Standards.
- Mastery of the airplane is demonstrated, 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.