Student Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 CFI: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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\*\*\*Please use this guide to track your progress and arrive prepared for each lesson\*\*\*

**Your Experience and Expectations**

We are so excited that you’ve chosen Class Bravo Air to help you accomplish all your aviation goals! Whether it’s to become a private pilot to fly to get $100 hamburgers with your friends or your goal is to become a captain at a major airline, we’ll help you get there. The way that we can do that is by employing first class instructors. Our instructors are what make us a great place to train and what we feel sets us apart. We believe the instructor/student relationship is one that continues for life. Long after you or your instructor are gone from Class Bravo, you can still contact them for aviation advice. Your instructor will show up every day ready to work hard to help you. However, they can’t do the work for you. It is a big commitment and accomplishment to learn to fly and it will take hard work and dedication on your end. At Class Bravo Air, you will get out what you put in and your instructor will be there every step of the way to match your dedication and continue to push you to your goals. You and your instructor will work together to set clear long term and short-term goals and expectations throughout your training. We also commit to be the best stewards of your resources (time and money) that we can be. Should you have any concerns along the way during your training, please do not hesitate to discuss them with your instructor and/or the owners as appropriate.

**About This Student Guide**

This student guide is intended for use by students at Class Bravo Flight School in conjunction with our syllabus. We have broken down the requirements for earning a Private Pilot Certificate into 24 flight lessons and 17 ground lessons. Although the training plan is divided into 24 individual lessons, that does not imply that after 24 flights you will be ready to take your checkride. Remember, after all, the minimum requirement for earning your Private is 40hrs. Some lessons will require more than one flight to complete depending on a multitude of reasons such as weather, difficulty, frequency of lessons, and many other factors. Just because a certain lesson is taking multiple flights to complete don’t get frustrated, that is perfectly normal! Some lessons such as towered airport operation are more difficult than others and will require a little more time. If you get stuck on a particular lesson you and your instructor may elect to move on and come back to it, learning plateaus are perfectly normal and nothing to be discouraged by. Our training program is intended to be flexible and adaptable to the needs of the student. The primary purpose of this guide is to help you as a student track your own progress and better prepare for lessons in advance. Each lesson has assigned reading, taking the time to complete the assigned reading will save you time and money.

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**Required Materials**

* FAR/AIM
* Pilots Handbook of Aeronautical Knowledge (PHAK)
* Airplane Flying Handbook (AFH)
* VFR Sectional
* Plotter
* E6B
* Logbook

**Suggested Materials**

* Ipad – Foreflight
* ASA Oral Exam Guide
* Headset
* Gleim written test prep



**Private Pilot Requirements**

* Valid student pilot certificate and third-class medical (or greater)
* At least 17 years old
* Read, speak, write, and understand English
* 70% or better score on private pilot knowledge test

**Minimum Aeronautical Experience**

* 40 hours of flight time, including at least
	+ 20 hours of training time (this means dual instruction)
		- 3 hours of cross-country flight training
		- 3 hours night flight training
			* 1 night XC training flight greater than 100nm
			* 10 takeoffs and 10 landings to a full stop at an airport
	+ 3 hours of simulated instrument time
	+ 3 hours of practical test prep flights within the preceding 2 Calendar months with a CFI
* 10 hours of solo flight time
	+ 5 hours of solo cross country time
		- One solo cross-country flight of 150nm total distance, with full- stop landings at three points, and one segment of the flight w/ straight-line distance of at least 50nm between takeoff and landing.
		- 3 solo takeoffs and landings to a full stop (each with a flight in the pattern) at an airport with an operating control tower.

**Aviation 101 Courses**

*These free courses developed by Textron Aviation and Embry Riddle are incorporated in our training plan and provide a wealth of information as well as computer animations of topics we will be discussing.*

Go to [www.Aviation101.org](http://www.Aviation101.org) to register for the free course.

There are 9 Modules that correspond with ground lessons and quizzes at the end of each module. The modules can be done one at a time or at your own pace, however we recommend completing them in conjunction with the ground lessons. The Modules are as follows: Aircraft Systems, Aerodynamics, Flight Instruments, Airports, Airspace, Radio Communication & ATC, Aeromedical, Aviation Weather, and Performance and Navigation

**Online logbook**

We strongly recommend creating an account with Myflightbook.com it’s free and easy. In addition to tracking your progress towards ratings and serving as a backup for your paper logbook it also makes generating 8710 forms a breeze!

**About Our Airport (M54)**



**Numbers to Know (M54)**

CTAF (Common Traffic Advisory) Frequency: **122.725**

AWOS (Weather) Frequency: **118.325** or call **(615) 444-5778**

Field Elevation: **588’**

Pattern Altitude: **1600’**

Runways **1/19 5000’** x **100’** Paved (Left Traffic)

Runways **4/22 1801’** x **150’** Grass (Left Traffic)

**Before Every Flight!**

**Check NOTAMS at:** [**https://pilotweb.nas.faa.gov/PilotWeb/**](https://pilotweb.nas.faa.gov/PilotWeb/)

**Check Weather at:** [**http://aviationweather.gov/**](http://aviationweather.gov/)

**Cancellation Policy**

Due to the dynamic nature of weather, people’s hectic schedules, and routine airplane maintenance it is sometimes necessary for lessons to be adjusted, rescheduled, or canceled. We make every effort to limit the inconvenience and any delays in training for all students and instructors. As such, it is necessary to have the following cancellation policy.

**General** – A cancellation fee will not be charged on a student’s first offense. We understand that life happens. Cancellation fees will also never be charged in the event of an emergency.

**Late Notice** - Anytime the instructor is at the airport or has started the drive to the airport that will be defined as a late notice for cancellation, unless the instructor is already at the airport or started the drive to the airport for other lessons and the lesson that is to be cancelled is still 8 hours or more out.

**No Call No Show** - No call no shows will not be tolerated from students or instructors. We do understand that life happens so no cancellation fee will be applied on the first offense. You will receive a notice after your first offense. For a second offense, .5 hours ground fee will be billed. You will receive a notice of the billing. All future occurrences will be billed 1.0 hours ground for lessons blocked for 2.0 hours or less and billed 2.0 hours ground for lessons blocked greater than 2.0 hrs.

**Sick** - No penalty will be applied for sick calls as long as the instructor is notified in a timely manner. If the instructor is not notified in a timely manner, it will be considered a no call no show.

**Mechanical** - If a lesson needs to be cancelled due to a planned or unplanned maintenance every effort will be made to switch to another aircraft of the same type. If no other aircraft is available, you will be notified as soon as possible by your instructor to discuss a ground lesson, sim session, rescheduling, or canceling.

**Weather** – Students are required to check the weather before EVERY flight! You can check the weather in Lebanon online using SkyVector or Foreflight or by calling (615) 444-5778. You should contact your instructor if you have a question about the weather or to verify that a lesson is canceled, never assume a lesson is canceled without first contacting your instructor. You can also discuss with your instructor if you’d like to come in anyway for a ground lesson or a sim session if it would be beneficial. You should contact your instructor as soon as practical if the weather is forecasted to exceed any of the listed minimums.

**Weather Minimums for Dual Flight Training -** ALL cloud layers 1,500 ft. or greater, Visibility 3 SM or greater, cross wind component less than 12 kts, total wind less than 20 kts.

**Weather Minimums for Solo** **-** ALL cloud layers 1,500 ft. or greater (including FEW and SCT), Visibility 5 SM or greater, cross wind component less than 7 kts, total wind less than 15 kts.

**Limitations -** No grass runways or runways with a field length less than 3,000 ft., no stalls without an instructor.

**Special Emphasis Areas**

*We will focus on the following areas throughout your training:*

1. **Positive aircraft control** – You are demonstrating that you are flying the airplane; the airplane shouldn’t be flying you.  Another example is that you shouldn’t be ‘behind the airplane’.
2. **Positive exchange of the flight controls procedure** – Use of the three-way voice handshake ‘You have the controls’ and visual check.
3. **Stall/spin awareness** – Demonstrating knowledge of the conditions that lead to stalls and spin, as well the proper recovery procedure.
4. **Collision avoidance** – Using clearing turns before maneuvers, pattern visual scans before entering runways, raising the wing in a high-wing airplane before turns, looking left and right before entering a taxiway and call-outs, i.e. ‘Clear Left’.
5. **Wake turbulence avoidance** – You need to demonstrate that you understand the risk of wake turbulence, the procedures to use when departing or arriving behind heavier aircraft, or when crossing behind a heavier aircraft enroute.
6. **LAHSO** – Land and hold short operations.  You need to know the requirements to accept a LAHSO clearance, the phraseology ATC will use, and your responsibilities once you have accepted a LAHSO clearance.  You also need to know that you do not have to accept a LAHSO clearance.   This is a special emphasis item as student and novice pilots are susceptible to runway incursions related to this operation as they are either unfamiliar with the operation and the runway’s allowable landing distance, or they do not understand that do not have to accept the ATC clearance. **Review section** [**4-3-11**](http://www.faa.gov/air_traffic/publications/atpubs/aim/aim0403.html#aim0403.html.13) in the AIM.
7. **Runway incursion avoidance –**This has been a hot topic for a few years now, and GA pilots are one of the largest violators of runway hold short instructions, either due to lack of situation awareness, distraction, or unfamiliarity with complex fields.  Read the [appendix](http://www.faa.gov/regulations_policies/handbooks_manuals/aviation/media/PHAK%20-%20Appendix%201.pdf) to the Pilot’s Handbook of Aeronautical Knowledge that was published to improve safety and reduce runway incursions.
8. **CFIT** – Controlled flight into terrain.  Demonstrating importance of always knowing about terrain and obstructions along flight path, and risk of inadvertent or continued flight into IMC.
9. **ADM and risk management** – This is such an important area that it has its own detailed section in the ACS
10. **Wire strike avoidance** – While this is a higher risk for helicopter and aerial application operations, every flight involves at least two close encounters with the ground. You need to discuss how you will assess the risk of wires anytime you are flying at less than 1,000 AGL.
11. **Checklist usage** – This is already called out in an earlier section in the ACS, but again its emphasized that you need to demonstrate consistent use of the checklist for all operations. Be prepared to discuss your strategy for using a checklist and how to avoid distractions when using a checklist.
12. **Temporary flight restrictions (TFRs)** – If your response is other than ‘I check for TFRs before every flight’ you’re likely to in the hot seat. Know how and where to obtain TFR information, the different types of TFRs, and how to interpret the TFR NOTAM to ensure that you can comply with its requirements.
13. **Special use airspace (SUA)** – Whether its a MOA, alert area, warning area, restricted area, prohibited area, or a TFR, you need to know how to identify it on a chart, the risks and restrictions associated with it, and best practices or procedures when flying through these types of SUAs.
14. **Aviation security** – Since 9/11, security has had an increasing emphasis. As general aviation pilots, we all share the responsibility to ensure the security of our airports and operations. Complete the [General Aviation Security](http://flash.aopa.org/asf/gasecurity/gasecurity.cfm) course from AOPA to learn best practices for security.
15. **Single-Pilot Resource Management (SRM**) – This is such an important area that it has its own detailed section in the ACS.

**Private Pilot Training Plan**

* **Ground Lesson 1 –** Learning the Basics (In Conjunction with Flight Lesson 1)
* **Flight Lesson 1 –** Preflight & Four Fundamentals (Dual)
* **Ground Lesson 2 –** Basic Aerodynamics
* **Ground Lesson 2.5 –** Aerodynamics (cont.)
* **Flight Lesson 2 –** Four Fundamentals and Basic Maneuvers (Dual)
* **Ground Lesson 3 –** Aircraft Construction and Flight Controls
* **Flight Lesson 3 –** Introduction to Slow Flight and Power Off/Arrival Stall (Dual)
* **Ground Lesson 4 –** Aircraft Systems
* **Flight Lesson 4 –** Power-On/Departure Stalls, Steep Turns and Emergency Procedures (Dual)
* **Ground Lesson 5 –** Ground Reference Maneuvers, Stalls
* **Flight Lesson 5 –** Ground Reference Maneuvers, Stalls (Dual)
* **Ground Lesson 6 –** Rules and Regulations
* **Flight Lesson 6 –** Airport Operations, Traffic Patterns and Landings (Dual)
* **Ground Lesson 7 –** Flight Operations
* **Flight Lesson 7 –** Critical Flight Situations and Landings at Other Airports (Dual)
* **Ground Lesson 8 –** Airspace
* **Flight Lesson 8 –** Landings Practice and Pre-Solo Written Take Home Exam (Dual)
* **Ground Lesson 9 –** Radio Communication
* **Pre Solo Progress Check 61.87(d)** (Dual)
* **Flight Lesson 9 –** Supervised Solo and First Solo (Solo)
* **Ground Lesson 10 –** Aircraft Performance
* **Flight Lesson 10 –** Towered Airport Intro (Dual)
* **Ground Lesson 11 –** Weight and Balance
* **Flight Lesson 11 –** Practice in Traffic Pattern (Towered Airport) – (Dual and Solo)
* **Ground Lesson 12 –** Weather
* **Flight Lesson 12 –** Review – (Dual or Solo)
* **Ground Lesson 13 –** Weather Reports
* **Flight Lesson 13 –** Basic Attitude Instrument Flight (Dual)
* **Ground Lesson 14 –** Navigation
* **Flight Lesson 14 –** Basic Attitude Instrument Review, Navigation, and Maneuvers (Dual)
* **Ground Lesson 15 –** Aeronautical Decision Making
* **Flight Lesson 15 –** Performance Takeoffs and Landings (Dual)
* **Ground Lesson 16–** Accident Reporting
* **Flight Lesson 16 –** Solo Pattern Work and Maneuvers (Solo)
* **Ground Lesson 17 –** Aeromedical Factors
* **Flight Lesson 17 –** Night Operations (Dual)
* **Flight Lesson 18 –** Cross Country (Dual)
* **Flight Lesson 19 –** Night Cross Country (Dual)
* **Flight Lesson 20 –** Cross Country (Dual)
* **Flight Lesson 21–** Initial Cross Country (Solo)
* **Flight Lesson 22 –** Cross Country (Solo)
* **Pre Long Solo Cross Country Progress Check** (Dual)
* **Flight Lesson 23 –** Long Cross Country (Solo)
* **Flight Lesson 24 –** Maneuvers and Practical Test Review (Dual)
* **Flight Lesson 25 –** Maneuvers Practice (Dual or Solo)
* **Final Progress Check** (Dual)

**Ground Lesson 1 – Learning the Basics**

Study material for this lesson: **N/A**

**We will discuss the following topics:**

* Weather information (METARs and TAFs)
* NOTAMS
* IMSAFE checklist
* Cockpit management
* Positive exchange of flight controls
* Airport, runway, and taxiway signage
* A brief overview of radio communication
* VFR traffic patterns
* Aircraft documents
* Pilot documents

**Flight Lesson 1 – Preflight & Four Fundamentals (Dual)**

Study material for this lesson: **N/A**

*Students will become familiar with preflight inspections, checklists, use of flight controls and their effect on taxiing and in-flight. We will introduce the four basic maneuvers (climbs, descents, turns, and straight-and-level) while keeping our focus outside the aircraft and enjoying the sensation of flight.*

**Lesson Content:**

* Pre-flight inspection (demo)
* Engine start (demo)
* Taxiing (demo)
* Normal takeoff (demo, instructor assist)
* Positive exchange of flight controls
* Collision avoidance
* Basic aircraft control
* Straight and level
* Trimming (demo)
* Climbs and descents (demo)
* Turns (demo)
* Turn coordination
* Simulated approach in landing configuration (note pitch attitude)
* Normal approach and landings (demo, instructor assist)
* Engine shutdown (demo)
* Securing the aircraft (demo)

**Ground Lesson 2 – Basic Aerodynamics**

Study material for this lesson: **Chapter 4 of the PHAK Principals of Flight, Aviation 101 Module 2 Aerodynamics**

**Familiarize yourself with the following topics:**

* Structure of the Atmosphere
* Atmospheric Pressure
* Pressure Altitude
* Density Altitude
* Bernoulli’s Principle
* Newton’s 3rd Law
* Airfoil Design
* Pressure Distribution
* Airfoil Behavior
* Forces Acting on the Aircraft
* Thrust
* Drag
* Parasite Drag
* Induced Drag
* Lift/Drag Ratio
* Weight
* Lift
* Wingtip Vortices
* Avoiding Wake Turbulence
* Ground Effect

**Ground Lesson 2.5 – Aerodynamics (cont.)**

Study material for this lesson: **Chapter 5 of the PHAK Aerodynamics**

**Familiarize yourself with the following topics:**

* Aircraft Design Characteristics
* Axes of an Aircraft
* Stability
* Static Stability
* Dynamic Stability
* Forces in Flight
* Stalls
* Basic Propeller Principles
* Torque and P-Factor
* Torque Reaction
* Corkscrew Effect
* Gyroscopic Action
* Asymmetric Loading (P-Factor)
* Load Factors
* Vg Diagram
* Rate of Turn
* Radius of Turn
* Weight and Balance
* Moment and Moment Arm
* Effect of Weight on Flight Performance
* Effect of Load Distribution

**Flight Lesson 2 – Four Fundamentals and Basic Maneuvers** **(Dual)**

Study material for this lesson: **Ch. 2 & 3 of AFH Ground Operations & Basic Flight Maneuvers**

*Students will become familiar with preflight inspections, checklists, use of flight controls and their effect on taxiing and in-flight. We will continue working on the four basic maneuvers (climbs, descents, turns, straight-and- level) and incorporate flight instruments while introducing turns to headings. Students should look up the current weather information and NOTAMS. We will discuss carburetor and/or induction icing, the aircraft’s power plant, and propeller.*

**Lesson Content:**

* Preflight
* Starting procedures
* Checklist usage
* Taxi
* Run-up
* Basic radio communication
* Normal takeoff
* Basic aircraft control
* Turns to headings
* Positive exchange of controls
* Turn coordination
* Dutch rolls (demo)
* Constant airspeed climbs
* Constant airspeed descents
* Medium banked turns
* Outline practice area
* Normal landing
* Engine shutdown
* Securing the aircraft

**Ground Lesson 3 – Aircraft Construction and Flight Controls**

Study material for this lesson: **Chapter 3 & 6 of the PHAK Aircraft Construction & Flight Controls, Aviation 101 Module 3 Flight Instruments**

**Familiarize yourself with the following topics:**

* Fuselage
* Wings
* Empennage
* Landing gear
* The powerplant
* Types of aircraft construction
* Truss structure
* Monocoque
* Semimonocoque
* Flight controls
* Primary flight controls
* Elevator
* T-tail
* Stabilator
* Rudder
* Secondary flight controls
* Flaps
* Leading edge devices
* Spoilers
* Trim tabs
* Balance tabs

**Flight Lesson 3 – Introduction to Slow Flight and Power Off/Arrival Stall (Dual)**

Study material for this lesson: **Ch. 4 (p. 1-17) & 5 (all) of AFH**

*Students will become familiar with slow flight, power off stalls and in-flight emergencies. You will be able to recognize an approaching stall. Students should look up the present the weather information and NOTAMS. We will briefly cover some performance and limitations information our training aircraft (basic speeds [Vs, Vs1, Vg etc.], G-limits) We will also discuss our aircraft’s electrical system and how to recognize an electrical malfunction and what to do if one occurs.*

**Lesson Content:**

* Spin awareness and recovery
* Preflight
* Taxi
* Run-up
* Normal takeoff
* Basic aircraft control
* Radio communication
* Positive exchange of controls
* Turn coordination
* Slow flight (demo)
* Trimming
* Turns in slow flight
* Power-off stall (demo)
* Electrical malfunction
* Normal landing
* Engine shutdown
* Securing the aircraft

**Ground Lesson 4 – Aircraft Systems**

Study material for this lesson: **Chapter 7 of the PHAK Aircraft Systems, Aviation 101 Module 1 Systems**

**Familiarize yourself with the following topics:**

* Reciprocating engines
* Propeller
* Fixed-pitch propeller
* Adjustable-pitch propeller
* Induction systems
* Carburetor systems
* Mixture control
* Carburetor icing
* Carburetor heat
* Outside air temperature gauge
* Fuel injection systems
* Turbochargers
* Ignition system
* Oil systems
* Engine cooling
* Exhaust systems
* Starting system
* Fuel systems
* Gravity-feed system
* Fuel-pump system
* Fuel primer
* Fuel gauges
* Fuel selectors
* Fuel strainers, sumps, and drains
* Fuel grades
* Fuel contamination
* Refueling procedures
* Electrical system
* Hydraulic systems
* Landing gear
* Brakes
* Anti-ice and deice systems
* Propeller deice system

**Flight Lesson 4 – Power-On/Departure Stalls, Steep Turns and Emergencies (Dual)**

Study material for this lesson: **Ch. 9 (Intro & Steep turns) & Ch. 17 of AFH**

*Students should look up the present weather information and NOTAMS. We will discuss spins, specifically, how they happen, how to prevent them, and how to recover. We will also discuss the airspace surrounding our airport and general practice areas. We will also discuss the following emergency procedures: Engine roughness or overheat, smoke/fire/engine compartment fire. We will briefly talk about our aircraft’s landing gear, fuel, oil, and hydraulic systems.*

**Lesson Content:**

* Spin Awareness and Recovery
* Preflight
* Taxi
* Run-up
* Normal Takeoff
* Basic Aircraft Control
* Radio Communication
* Positive Exchange of Controls
* Turn coordination
* Steep Turns (demo)
* Slow Flight
* Turns In Slow Flight
* Power-Off Stall
* Power-On Stall (demo)
* Engine Failure Procedures
* Power off descent (Vg)
* Inflight Emergencies
* Ditching
* Normal landing
* Go around (demo)
* Engine Shutdown
* Securing the aircraft

**Ground Lesson 5 – Ground Reference Maneuvers, Stalls**

Study material for this lesson: **Ch. 6 of AFH Ground Reference Maneuvers**

**Familiarize yourself with the following topics:**

* Rectangular Pattern
* Turns Around a Point
* S Turns
* Slow Flight
* Flight at Less than Cruise Airspeeds
* Flight at MCA
* Stalls
* Recognition of Stalls
* Fundamentals of Stall Recovery
* Use of controls in Stall Recovery
* Stall Characteristics
* Power-On or Power-Off
* Secondary Stall
* Accelerated Stalls
* Cross-Control Stall
* Slips
* Elevator Trim Stall
* Spins
* Spin Procedures
* Weight and Balance Requirements

**Flight Lesson 5 – Ground Reference Maneuvers, Stalls (Dual)**

Study material for this lesson: **Ch. 6 of AFH Ground Reference Maneuvers**

*Students should look up the present weather information and NOTAMS. You will become familiar with ground reference maneuvers, dividing attention and developing coordination.*

**Lesson Content:**

* Normal Takeoff
* Radio Communication
* Turn Coordination
* Stalls (Power Off and Power On)
* Slow Flight
* Wind Correction
* S Turns (demo)
* Turns Around a Point (demo)
* Rectangular Course (demo)
* Simulated Engine Failure
* Slips (demo)
* Normal approach and landings
* Engine Shutdown
* Securing the aircraft

**Ground Lesson 6 – Rules and Regulations**

Study material for this lesson: **Familiarize yourself with following sections of the FAR/AIM**

**Familiarize yourself with the following topics:**

* 91.3 – Responsibility of the PIC
* 91.7 – Civil aircraft airworthiness
* 91.13 – Careless or reckless operation
* 91.15 – Dropping objects
* 91.17 – Alcohol or drugs
* 91.103 – Preflight action
* 91.107 – Use of safety belts
* 91.111 – Operating near other aircraft
* 91.113 – Right-of-way rules
* 91.119 – Minimum safe altitudes
* 91.123 –ATC clearances
* 91.125 – ATC light signals
* 91.151 – Fuel requirements for VFR
* 91.155 – VFR weather minimums
* 91.159 – VFR cruising altitude
* 91.203 – Certifications required
* 91.205 – Equipment requirements
* 91.209 – Aircraft lights
* 91.211 – Supplemental oxygen
* 91.213 – Inoperative equipment
* 91.215 – ATC transponder use
* 91.303 – Aerobatic flight
* 91.409 – Inspections
* 91.411 – Altimeter system inspections
* 91.413 – ATC transponder inspections
* Part 61 – Certification of Pilots
* 61.57 – Recent flight experience
* 61.83 – Eligibility Requirements
* 61.87 – Solo Requirements
* 61.89 –Limitations
* 61.93 – Solo Cross-Country req.
* 61.95 –Student Pilots in Class B airspace
* 61.103 – Eligibility requirements
* 61.105 – Aeronautical Knowledge
* 61.107 – Flight Proficiency req.
* 61.109 – Aeronautical Experience req.
* 61.113 – Private Pilot Privileges

**Flight Lesson 6 – Airport Operations, Traffic Patterns and Landings (Dual)**

Study material for this lesson: **Ch. 7 & 8 (p. 26-35) of AFH**

*Students should look up the present weather information and NOTAMS. We will discuss airport traffic patterns, determining headwind and crosswind components and go arounds.*

**Lesson Content:**

* Normal Takeoff
* Aborted Takeoff
* Radio Communications
* Traffic Pattern entry
* Full flap landing
* Go arounds
* Normal approaches and landings
* Forward Slips
* Engine Shutdown
* Securing the aircraft

**Ground Lesson 7 – Flight Operations**

Study material for this lesson: **Chapter 14 of PHAK Airport Operations, Aviation 101 Module 5 Airports**

**Familiarize yourself with the following topics:**

* Types of Airports
* Towered Airport
* Nontowered Airport
* Sources for Airport Data
* Aeronautical Charts
* A/FD
* Notices to Airmen (NOTAMS)
* Airport Markings and Signs
* Runway Markings
* Taxiway Markings
* Other Markings
* Airport Signs
* Airport Lighting
* Airport Beacon
* Approach Light Systems
* Visual Glideslope Indicators
* Other Glidepath Systems
* Runway Lighting
* Runway End Identifier Lights
* Runway Edge Lights
* In-Runway Lighting
* Control of Airport Lighting
* Taxiway Lights
* Obstruction Lights
* Wind Direction Indicators
* Traffic Patterns
* Parallel Runways
* Radio Communications
* Radio Equipment
* Lost Communication Procedures
* Air Traffic Control (ATC) Services
* Primary Radar
* Transponder
* Radar Traffic Advisories
* Wake Turbulence
* Collision Avoidance
* Clearing Procedures
* Runway Incursion Avoidance

**Flight Lesson 7 – Critical Flight Situations and Landings at Other Airports (Dual)**

Study material for this lesson: **Ch. 7 of AFH Airport Traffic Patterns**

*Students should look up the present weather information and NOTAMS. You will become more proficient in recognition and recovery from critical flight situations and become familiar with traffic pattern operations and landings at other airports.*

**Lesson Content:**

* Normal and crosswind Takeoff
* Radio Communication
* Crosswind landings
* Forward slips
* No flap landings
* Go arounds
* Emergency engine out landings
* Wind Shear Avoidance
* Engine Shutdown
* Securing the aircraft

**Ground Lesson 8 – Airspace**

Study material for this lesson: **Chapter 15 of PHAK Airspace, Aviation 101 Module 6 Airspace**

**Familiarize yourself with the following topics:**

* Controlled Airspace
* Class A Airspace
* Class B Airspace
* Class C Airspace
* Class D Airspace
* Class E Airspace
* Class G Airspace
* Special Use Airspace
* Prohibited Areas
* Restricted Areas
* Warning Areas
* MOAs
* Alert Areas
* Controlled Firing Areas
* Other Airspace Areas
* Wildlife Areas
* Military Training Routes
* Temporary Flight Restrictions
* Published VFR Routes
* Terminal Radar Service Areas
* National Security Areas
* Basic VFR Weather Minimums
* Equipment Requirements

**Flight Lesson 8 – Landings Practice and Pre-Solo Written Take Home Exam (Dual)**

Study material for this lesson: **Review Ch. 8 of AFH and Ch. 14 of PHAK**

*Students should look up the present weather information and NOTAMS. You will become more proficient with traffic patterns, takeoffs and landings in preparation for solo. We will continue to develop good aeronautical decision making skills, specifically determining when a go around is necessary. You will also receive a pre solo test to complete to help familiarize yourself with the POH of our airplane and its systems. Your instructor will review and grade it prior to solo.*

**Lesson Content:**

* Preflight
* Engine Start
* Taxi
* Radio Communication
* Normal and crosswind takeoff
* Simulated Engine Fire and Emergency Approach and Landing
* Normal and crosswind approaches and landings
* Go arounds (simulated balked approach, demonstrating good ADM)
* Engine Shutdown
* Securing the aircraft

**Ground Lesson 9 – Radio Communication**

Study material for this lesson: **AIM 4-1 and 4-2**, **Aviation 101 Module 7 Radio Communication**

**Familiarize yourself with the following topics:**

* 4-1-1 – Air Route Traffic Control Centers
* 4-1-2 – Control Towers
* 4-1-3 – Flight Service Stations
* 4-1-8 – Approach Control
* 4-1-9 – Traffic Advisory Practices
* 4-1-13 – ATIS
* 4-1-15 – Radar Traffic Information
* 4-1-16 – Safety Alert
* 4-1-17 – Radar Assistance
* 4-1-18 – Terminal Radar Services
* 4-1-19 – Tower En Route Control
* 4-1-20 – Transponder Operation
* 4-1-21 – Hazardous Area Reporting
* 4-2-1 – General
* 4-2-2 – Radio Technique
* 4-2-3 – Contact Procedures
* 4-2-4 – Aircraft Call Signs
* 4-2-6 – Ground Station Call Signs
* 4-2-7 – Phonetic Alphabet
* 4-2-8 – Figures
* 4-2-9 – Altitudes and Flight Levels
* 4-2-10 – Directions
* 4-2-11 – Speeds
* 4-2-12 – Time
* 4-2-13 – Light Gun Signals
* 4-2-14 – Communications for VFR Flights

**Pre Solo Progress Check 61.87(d) (Dual)**

Study material for this lesson: **Review for Pre Solo Progress Check**

*Students should demonstrate the ability to prepare for the flight unassisted (just like you were solo). Furthermore, the check instructor will be evaluating the following areas:*

* Planning and preparation
* Preflight
* Powerplant operation, and aircraft systems
* Taxiing or surface operations, including runup
* Takeoffs and landings, including normal and crosswind
* Straight and level flight, and turns in both directions
* Climbs and climbing turns
* Airport traffic patterns entry and departure procedures
* Collision avoidance
* Windshear avoidance
* Wake turbulence avoidance
* Descents, with and without turns, using high and low drag configurations
* Flight at various airspeeds from cruise to slow flight
* Stall entries from various flight attitudes and power combinations
* Emergency procedures and equipment malfunctions
* Ground reference maneuver of instructors choice
* Approach to a landing area with simulated engine malfunction
* Slip to a landing
* Go-around
* Normal landing

**Flight Lesson 9 – Supervised Solo and First Solo (Solo)**

Study material for this lesson: **N/A**

*Students should demonstrate the ability to prepare for the flight unassisted. Be sure to wear a shirt you don’t mind getting ruined for this lesson. Upon completion of solo flight your instructor will cut your shirt tail and take your picture!*

**Focus areas during your solo flight:**

* Startup
* Taxi
* Normal Takeoff
* 3 Normal Landings (full stop)
* Engine Shutdown
* Securing the aircraft

**Ground Lesson 10 – Aircraft Performance**

Study material for this lesson: **Chapter 11 of PHAK & Landing/Takeoff Performance in POH**

**Familiarize yourself with the following topics:**

* Importance of Performance Data
* Atmospheric Pressure
* Pressure Altitude
* Density Altitude
* Effects of Pressure on Density
* Effects of Temperature on Density
* Effects of Humidity on Density
* Performance
* Straight-and-Level Flight
* Climb Performance
* Range Performance
* Takeoff and Landing Performance
* Runway Surface and Gradient
* Water on the Runway
* Takeoff Performance
* Landing Performance
* Performance Speeds
* Performance Charts
* Interpolation
* Density Altitude Charts
* Takeoff Charts
* Climb and Cruise Charts
* Crosswind and Headwind Component
* Landing Charts
* Stall Speed Performance Chart

**Flight Lesson 10 – Towered Airport Intro (Dual)**

Study material for this lesson: **Towered Ops in Ch. 14 of PHAK & Ch. 7 of AFH**

*Students should look up the present weather information and NOTAMS for airport of departure and at destination (KMQY). You will become more proficient with traffic patterns, takeoffs and landings, towered operation and ground control in preparation for towered solo. If doing the towered landing practice at KMQY We can request a tour of the control tower, meet the controllers, and tour the facility (workload permitting).*

**Lesson Content:**

* Preflight
* Engine start
* Taxi
* Towered radio communication
* Normal and crosswind takeoff
* Normal and crosswind approaches and landings
* Go arounds
* Engine shutdown
* Securing the aircraft

**Ground Lesson 11 – Weight and Balance**

Study material for this lesson: **Chapter 10 of PHAK Weight and Balance**

**Familiarize yourself with the following topics:**

* Effects of Weight
* Weight Changes
* Balance, Stability, and Center of Gravity
* Effects of Adverse Balance
* Stability
* Control
* Terms and Definitions
* Principles of Weight and Balance Computations
* Determining CG
* Graph Method
* Table Method
* Computations with a Negative Arm
* Computations with Zero Fuel Weight
* Shifting, Adding, and Removing Weight
* Weight Shifting
* Weight Addition or Removal

**Flight Lesson 11 – Practice in Traffic Pattern (Towered Airport) – (Dual and Solo)**

Study material for this lesson: **Review Ch. 14 of PHAK and Ch. 7 of AFH for Towered Solo**

*Students should look up the present weather information and NOTAMS for airport of departure and at destination (KMQY). As soon as you are comfortable with towered airport radio communication and ground control you will do three solo landings in the pattern. Repeat flights may be necessary until you are comfortable with towered operations, don’t worry, it takes time!*

**Focus areas during your solo flight:**

* Preflight
* Engine Start
* Taxi
* Towered radio communication
* Normal and crosswind takeoff
* Normal and crosswind approaches and landings
* 3 solo full stop landings
* Engine shutdown
* Securing the aircraft

**Ground Lesson 12 – Weather**

Study material for this lesson: **Chapter 12 of PHAK Weather, Aviation 101 Module 10 Weather**

**Familiarize yourself with the following topics:**

* Causes of weather
* Atmospheric Pressure
* Coriolis Force
* Altitude and Atmospheric Pressure
* Altitude and the Human Body
* Wind Patterns
* Convective Currents
* Effect of Obstructions on Wind
* Low-Level Wind Shear
* Weather Maps
* Moisture and Temperature
* Relative Humidity
* Temperature/Dew Point Relationship
* Dew and Frost
* Fog
* Clouds
* Ceiling
* Visibility
* Precipitation
* Air Masses
* Fronts
* Warm Front
* Cold Front
* Stationary Front
* Occluded Front
* Thunderstorms
* Hazards
* Squall Line
* Tornadoes
* Turbulence
* Icing
* Hail
* Lightning

**Flight Lesson 12 – Review – (Dual or Solo)**

Study material for this lesson: **Review as required by CFI**

*We will utilize this lesson to review any areas that need work up to this point, brush up on maneuvers, and solidify the basics before moving on to basic attitude instrument flight.*

**Lesson Content:**

* Preflight
* Engine Start
* Taxi
* Radio Communication
* Normal and crosswind takeoff
* Ground reference maneuvers
* Stalls, power on and power off
* Steep turns
* Slow flight
* Constant airspeed climbs and descents
* Normal and crosswind approaches and landings
* Go arounds
* Engine Shutdown
* Securing the aircraft

**Ground Lesson 13 – Weather Reports**

Study material for this lesson: **Chapter 13 of PHAK Aviation Weather Services**

**Familiarize yourself with the following topics:**

* Surface Aviation Weather Observations
* Upper Air Observations
* Radar Observations
* Satellite Weather
* Satellite Weather Products
* Service Outlets
* Automated Flight Service Station (AFSS)
* Transcribed Information Briefing
* DUATS
* En Route Flight Advisory Service (EFAS)
* HIWAS
* Transcribed Weather Broadcast (TWEB)
* Weather Briefings
* Aviation Weather Reports
* METAR
* Pilot Weather Reports (PIREPs)
* Radar Weather Reports (RAREP)
* Aviation Forecasts
* Terminal Aerodrome Forecasts (TAF)
* Area Forecasts (FA)
* Inflight Weather Advisories
* AIRMET
* SIGMET
* Convective Sigmet
* Winds and Temperature Aloft Forecast
* Weather Charts
* Surface Analysis Chart
* Weather Depiction Chart
* Radar Summary Chart
* Significant Weather Prognostic Charts
* ATC Radar Weather Displays
* Weather Avoidance Assistance
* Weather Products Age and Expiration
* NEXRAD Limitations
* AIRMET/SIGMET

**Flight Lesson 13 – Basic Attitude Instrument Flight (Dual)**

Study material for this lesson: **Ch. 4 (p. 17-24) of AFH**

*We will briefly introduce VORs and their use and operation. You will gain an understanding of flight by reference to instruments, instrument scan, VOR tracking, and we will simulate inadvertent VFR into IMC.*

**Lesson Content:**

* Instrument scan
* Straight and level flight under the hood
* Unusual attitudes
* Constant airspeed climbs and descents
* Constant rate climbs and descents
* Standard rate turns (demo)
* Timed turns to headings
* VOR intercepting and tracking (demo)

**Ground Lesson 14 – Navigation**

Study material for this lesson: **Chapter 16 of PHAK Navigation, Aviation 101 Module 11 Performance & Navigation**

**Familiarize yourself with the following topics:**

* Sectional Charts
* VFR Terminal Area Charts
* World Aeronautical Charts
* Latitude and Longitude
* Time Zones
* Variation
* Deviation
* Effect of Wind
* Basic Calculations
* Converting Minutes to Equivalent Hours
* Converting Knots to Miles Per Hour
* Fuel Consumption
* E6B
* Plotter
* Pilotage
* Dead Reckoning
* Flight Planning
* Completing a NAV log
* Use of A/FD
* Steps in Charting the Course
* Filing a VFR Flight Plan
* VOR’s
* Tracking With VOR
* Course Intercept
* Rate of Intercept
* Angle of Intercept
* Using the VOR
* CDI
* Horizontal Situation Indicator
* Distance Measuring Equipment (DME)
* Global Positioning System
* VFR Waypoints
* Lost Procedures
* Flight Diversions

**Flight Lesson 14 – Basic Attitude Instrument Review, Navigation, and Maneuvers (Dual)**

Study material for this lesson: **Ch. 4 (p. 17-24) of AFH & Ch. 16 of PHAK**

*You will gain an understanding of flight by reference to instruments, instrument scan, VOR tracking and continue practicing flight maneuvers.*

**Lesson Content:**

* Instrument scan
* Basic attitude instrument flight
* VOR tracking and intercepting
* GPS intro and setup
* Practice are review
* Slow Flight
* Power on and power off stalls
* Steep turns

**Ground Lesson 15 – Aeronautical Decision Making**

Study material for this lesson: **Chapter 2 of PHAK Aeronautical Decision Making**

**Familiarize yourself with the following topics:**

* Hazard and Risk
* Hazardous Attitudes and Antidotes
* Assessing Risk
* Likelihood of an Event
* Severity of an Event
* Mitigating Risk
* The PAVE Checklist
* Human Behavior
* The Decision-Making Process
* SRM and the 5P Check
* The Plan
* The Plane
* The Pilot
* The Passengers
* The Programming
* Perceive, Process, Perform (3P)
* Forming Good Safety Habits
* The DECIDE Model
* Decision-Making in a Dynamic Environment
* Automatic Decision-Making
* Operational Pitfalls
* Stress Management
* Use of Resources
* Internal Resources
* External Resources
* Situational Awareness
* Obstacles to Maintaining Situational Awareness
* Workload Management
* Managing Risks
* Automation
* Equipment Use
* Autopilot System

**Flight Lesson 15 – Performance Takeoffs and Landings (Dual)**

Study material for this lesson: **Review Ch. 9 of AFH**

*Students should look up the present weather information and NOTAMS. We will briefly discuss aircraft performance and when to use short field and soft field takeoffs as well as Vx and Vy. The instructor will demonstrate short field and soft field takeoffs and landings and then have you perform them as well.*

**Lesson Content:**

* Preflight
* Engine Start
* Taxi
* Radio Communication
* Short field takeoff (demo)
* Short field landing (demo)
* Slips
* Soft field takeoff (demo)
* Soft field landing (demo)
* Engine Shutdown
* Securing the aircraft

**Ground Lesson 16– Accident Reporting**

Study material for this lesson: **Review NTSB Part 830 of the FAR/AIM**

**Familiarize yourself with the following topics:**

* 830.2 – Definitions (defines what an accident is)
* Initial Notification of Aircraft Accidents, Incidents, and Overdue Aircraft
* 830.5 – Immediate notification
* 830.6 – Information to be given in notification
* 830.1 – Preservation of aircraft wreckage, mail, cargo and records
* Reporting of Aircraft Accidents, Incidents, and Overdue Aircraft
* 830.15 – Reports and statements to be filed

**Flight Lesson 16 – Solo Pattern Work and Maneuvers (Solo)**

Study material for this lesson: **Review as required by CFI**

*Students should look up the present weather information and NOTAMS. You will continue to gain proficiency and build solo time by conducting a solo flight in the pattern and to the practice area to conduct maneuvers (excluding stalls).*

**Focus areas during your solo flight:**

* Preflight
* Engine Start
* Taxi
* Radio Communication
* Collision avoidance procedures
* Normal and crosswind takeoff
* Ground reference maneuvers
* Constant airspeed climbs and descents
* Normal and crosswind approaches and landings
* Engine Shutdown
* Securing the aircraft

**Ground Lesson 17 – Aeromedical Factors**

Study material for this lesson: **Chapter 17 of PHAK Aeromedical Factors, Aviation 101 Module 9 Aeromedical**

**Familiarize yourself with the following topics:**

* Obtaining a Medical Certificate
* Health and Physiological Factors
* Hypoxia
* Hypoxic Hypoxia
* Hypemic Hypoxia
* Stagnant Hypoxia
* Histotoxic Hypoxia
* Symptoms of Hypoxia
* Hyperventilation
* Middle Ear and Sinus Problems
* Spatial Disorientation and Illusions
* Vestibular Illusions
* Visual Illusions
* Postural Considerations
* Demonstration of Spatial Disorientation
* Climbing While Accelerating
* Climbing While Turning
* Diving While Turning
* Tilting to Right or Left
* Reversal of Motion
* Coping with Spatial Disorientation
* Optical Illusions
* Runway Width Illusion
* Runway and Terrain Slopes Illusion
* Featureless Terrain Illusion
* Haze
* Fog
* Ground Lighting Illusions
* Motion Sickness
* Carbon Monoxide (CO) Poisoning
* Stress
* Fatigue
* Dehydration and Heatstroke
* Alcohol
* Drugs
* DCS After Scuba Diving
* Vision in Flight
* Empty-Field Myopia
* Night Vision
* Night Vision Illusions
* Autokinesis
* False Horizon
* Night Landing Illusions

**Flight Lesson 17 – Night Operations (Dual)**

Study material for this lesson: **Review Ch. 10 of AFH Night Operations**

*Students should look up the present weather information and NOTAMS. You will become familiar with night operations and landings in preparation for dual night cross country. Bring a flashlight! Preferably one with a red lens.*

**Lesson Content:**

* (Night) Preflight
* Engine Start
* Taxi
* Radio Communication
* Normal and crosswind takeoff
* Night Illusions
* Full stop landings
* Engine Shutdown
* Securing the aircraft

**Flight Lesson 18 – Cross Country (Dual)**

Study material for this lesson: **Review Ch. 16 of PHAK for Cross Country Planning**

*Students should pick an airport approximately 50nm from our home airport and look up the current and forecasted weather as well as any relevant NOTAMS. Your instructor will assist with cross-country flight planning and filling out a nav log.*

**Lesson Content:**

* Preflight
* Cross country flight planning (demo)
* Engine Start
* Taxi
* Radio Communication
* Normal or crosswind takeoff
* VFR navigation
* Flight following
* Fuel and time to checkpoint calculations
* Diversions
* Lost procedures
* Pattern entry procedures
* Normal or crosswind approaches and landings
* Engine Shutdown
* Securing the aircraft

**Flight Lesson 19 – Night Cross Country (Dual)**

Study material for this lesson: **Ch. 10 of AFH**

*Students should pick an airport approximately 50nm from our home airport and look up the current and forecasted weather as well as any relevant NOTAMS. You should be able to fill out the nav log with minimal assistance from the instructor for practice. GPS/ VOR will be the primary means navigation since part of this flight will be conducted under the hood. Don’t forget to bring a flashlight!!!*

**Lesson Content:**

* Preflight
* Cross country flight planning
* Engine Start
* Taxi
* Radio Communication
* Normal or crosswind takeoff
* Basic attitude instrument flying
* Tracking a course with GPS or VOR
* Electrical failure
* Pattern entry procedures
* Normal or crosswind approaches and landings
* Engine Shutdown
* Securing the aircraft

**Flight Lesson 20 – Cross Country (Dual)**

Study material for this lesson: **Prepare for Cross Country**

*Students should look up the present weather information and NOTAMS. You will become more proficient with traffic patterns, takeoffs and landings in preparation for your solo cross country. You should have your cross country planned and be able to answer any questions concerning your planned route, destination information, and options for navigation. You should also be able to discuss various emergency and contingency scenarios if the flight cannot be completed as planned.*

**Lesson Content:**

* Use of aeronautical charts for VFR navigation
* Pilotage
* Dead reckoning
* Aircraft performance charts
* Aeronautical weather reports
* Collision avoidance
* Emergency procedures
* Traffic pattern procedures
* Wake turbulence precautions
* Windshear avoidance
* Recognition and avoidance of hazardous terrain features
* Instrument operation
* Radio communication
* Control and maneuvering solely by reference to flight instruments
* Climbs at best angle and best rate
* Takeoff, approach, and landing procedures
* Short-field, soft-field, and crosswind takeoffs, approaches, and landings

**Flight Lesson 21– Initial Cross Country (Solo)**

Study material for this lesson: **Prepare for Cross Country**

*Students should pick an airport approximately 50nm or greater from our home airport and look up the current and forecasted weather as well as any relevant NOTAMS and make a go/no go decision. You should be able to fill out the nav log without assistance from your instructor and answer questions concerning the route, fuel requirements, and lost procedures. We encourage students to use flight following.*

**Focus areas during your solo flight:**

* Preflight
* Cross country flight planning
* Engine Start
* Taxi
* Radio Communication
* Normal or crosswind takeoff
* VFR navigation
* Tracking a course with GPS or VOR
* Pattern entry procedures
* Normal or crosswind approaches and landings
* Engine Shutdown
* Securing the aircraft

**Flight Lesson 22 – Cross Country (Solo)**

Study material for this lesson: **Prepare for Initial Solo Cross Country**

*Students should pick an airport approximately 50nm or greater from our home airport and look up the current and forecasted weather as well as any relevant NOTAMS and make a go/no go decision. You should be able to fill out the nav log without assistance from your instructor and answer questions concerning the route, fuel requirements, and lost procedures. We encourage students to use flight following.*

**Focus areas during your solo flight:**

* Preflight
* Cross country flight planning
* Engine Start
* Taxi
* Radio Communication
* Normal or crosswind takeoff
* VFR navigation
* Tracking a course with GPS or VOR
* Pattern entry procedures
* Normal or crosswind approaches and landings
* Engine Shutdown
* Securing the aircraft

**Pre Long Solo Cross Country Progress Check (Dual)**

Study material for this lesson: **Prepare for Cross Country**

*Students should be able to gather all information relevant to your cross-country flight and present it to your instructor and fill out a nav log unassisted. You will set out on a cross-country but simulated deteriorating weather will force a diversion. Be sure to have a backup plan!*

**Lesson Content:**

* VFR flight planning
* Aircraft performance charts
* Aeronautical weather reports
* Collision avoidance
* Flight following
* Fuel burn and ETA calculations
* Lost procedures
* Diversions
* Emergency procedures
* Traffic pattern procedures
* Wake turbulence precautions
* Aeronautical decision making
* Instrument operation
* Radio communication
* Control and maneuvering solely by reference to flight instruments
* Climbs at best angle and best rate
* Takeoff, approach, and landing procedures
* Short-field, soft-field, and crosswind takeoffs, approaches, and landings

**Flight Lesson 23 – Long Cross Country (Solo)**

Study material for this lesson: **Prepare for Long Solo Cross Country**

*You should pick a route that is 150nm total distance and includes a leg that is at least 50nm, with three takeoffs and landings to a full-stop. Prior to the flight look up the current and forecasted weather as well as any relevant NOTAMS and make a go/no go decision. You should be able to fill out the nav log without assistance from your instructor and answer questions concerning the route, fuel requirements, and lost procedures. We encourage students to use flight following!*

**Focus areas during your solo flight:**

* Preflight
* Cross country flight planning
* Engine Start
* Taxi
* Radio Communication
* Flight following
* Normal or crosswind takeoff
* VFR navigation
* Tracking a course with GPS or VOR
* Pattern entry procedures
* Normal or crosswind approaches and landings
* Engine Shutdown
* Securing the aircraft

**Flight Lesson 24 –Maneuvers and Practical Test Review (Dual)**

Study material for this lesson: **Review Oral Exam Guide & Maneuvers**

*We will run through all the maneuvers required for the private pilot checkride and use this time to address any deficient areas in preparation for the checkride.*

**Lesson Content:**

* Preflight
* Engine Start
* Taxi
* Radio Communication
* Short field and soft field takeoffs
* Clearing procedures
* Collision avoidance
* Ground reference maneuvers
* Emergency procedures
* Stalls, power on and power off
* Steep turns
* Slow flight
* Constant airspeed climbs and descents
* Short field and soft field landings
* Go arounds
* Engine Shutdown
* Securing the aircraft

**Flight Lesson 25 – Maneuvers Practice (Dual or Solo)**

Study material for this lesson: **Prepare for Checkride Prep/Final Progress Check**

*We will run through all the maneuvers required for the private pilot checkride and use this time to address any deficient areas in preparation for the checkride.*

**Lesson Content:**

* Preflight
* Engine Start
* Taxi
* Radio Communication
* Short field and soft field takeoffs
* Clearing procedures
* Collision avoidance
* Ground reference maneuvers
* Emergency procedures
* Steep turns
* Slow flight
* Constant airspeed climbs and descents
* Short field and soft field landings
* Go arounds
* Engine Shutdown
* Securing the aircraft

**Final Progress Check (Dual)**

Study material for this lesson: **Checkride Prep**

*Students will fly a simulated checkride for the instructor as if the instructor was the examiner*

**Lesson Content:**

* Simulated oral exam
* Required pilot documents
* Regulations
* Weather briefing
* Weight and balance
* Aircraft airworthiness
* Cross country flight planning
* Preflight
* Startup
* Taxi
* Checklist usage
* Runup
* Normal or crosswind takeoff
* Time and fuel to checkpoint
* Diversions
* Collision avoidance
* Cockpit management
* Clearing turns
* Steep turns
* Stalls Power on, power off
* Stall 20 degree bank
* Ground reference maneuvers
* Engine failure
* Emergency procedures
* Radio Communication
* Short field Landing
* Soft field landing
* Short field takeoff
* Soft field takeoff
* Aeronautical decision making
* Go around
* Engine Shutdown
* Securing the aircraft

**Private Pilot Rating Worksheet**

* 40 hours total flight time
* 10 hours solo flight
* 20 hours flight training from an authorized instructor:
* 3 hours flight training with sole reference to the instruments – including straight & level flight, constant speed climbs & descents, turns to a heading, recovery from unusual flight attitudes, radio comm, use of navigation systems/facilities

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Aircraft | Activity | Hours |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Total |  |

* 3 hours cross country flight training

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Aircraft | Route | Hours |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Total |  |

* 3 hours night – including 100nm cross country flight and 10 takeoffs/full-stop landings

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Aircraft | Route | Hours |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Total |  |

* 3 hours flight training in preparation for the practical test within 60 days of test date.

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Aircraft | Activity | Hours |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Total |  |

* 1 solo cross country of at least 150 nm total distance with full stop landings at minimum of 3 points. One segment must be at least 50nm.

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Aircraft | Route | Hours |
|  |  |  |  |

* 3 solo takeoffs/full-stop landings at a towered airport with an operational tower

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Aircraft | Route | Hours |
|  |  |  |  |
|  |  |  |  |

* 5 hours solo cross country flight time

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Aircraft | Route | Hours |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Total |  |

**Checkride Checklist:**

* Student Pilot Certificate
* Photo identification – current with signature
* Current medical
* Completed 8710 with instructor signature
* Pilot logbook with instructor endorsements Examiners fee
* 8060 (retest, pink slip) (if applicable)
* TSA approval (if applicable)
* Aircraft documents (AROW)
* Aircraft logs (AV1ATE)
* VFR cross country planned, w/proper chart Weight & Balance for you & examiner
* Navigation tools – plotter, E6B, etc
* Publications – charts, AFD, FAR/AIM
* Written exam results
* Requirements met (this rating worksheet)