Introduction Version 1.2

Welcome to the St. Pete Air private pilot syllabus. This syllabus will serve as a guide to fulfill the requirements of a part 61 private pilot certificate.

In order to qualify for a private pilot license you will need a minimum of 40 hours of flight time which this guide will cater to. This syllabus uses a traditional layout which begins with general instruction and then transitions into solo flying followed by cross country instruction and ends with checkride preparation. It is important to understand that this syllabus serves as a guide for the instructor however the instructor may certainly choose to cover any additional tasks on any given lesson. While this syllabus is set up to complete a private pilot rating in 40 hours it should be noted that certain lessons may need to be repeated or skipped and as a result completion time may vary. This is completely normal and should not be cause for concern.

Each lesson will layout several topics that will be gone over either prior to, during or after the flight. You will notice that the in-flight topics will only cover 20 to 30 minutes of each flight. The remainder of the lesson will be used as the instructor chooses, likely this will be practicing maneuvers and landings.

At the end of each lesson there will be an assignment which will either greatly assist in your required knowledge and/or keep you on track for completion. With the majority of these assignments there will be some listed topics that should be your main takeaway from the reading. These key topics should be reviewed with the instructor at the beginning of the next lesson to ensure understanding. The reading assignments will allow the student to begin studying the for their written test at the half-way point and begin studying for the checkride a few weeks after. We have found this to be the ideal roadmap for completing a private pilot license.

### Flight 1-1: Fundamentals

<u>Duration</u>	1 Hour Flight
<u>Objective</u>	As a first lesson this time should be spent gaining familiarization with the flight controls and characteristics of the airplane. A major component of this first lesson should be a thorough walk around with the student ensuring they understand the importance. At the end of the lesson it is crucial to give the student some direction on how to begin their at home studying.
Pre-Flight	<ul> <li>Gather Student Information</li> <li>Complete Citizenship Endorsement</li> <li>Overview Normal Lesson</li> <li>Overview Syllabus</li> <li>Discuss Eligibility Requirements</li> <li>Introduce Checklists</li> <li>Introduce Pre-Flight</li> </ul>
<u>Flight</u>	<ul> <li>Checklist Utilization</li> <li>Introduce Taxiing</li> <li>Introduce Traffic Scan</li> <li>Introduce Positive Exchange of Controls</li> <li>Introduce Fundamentals</li> <li>Climbs/Descents</li> <li>Turns</li> <li>Level Flight</li> </ul>
Post-Flight	<ul> <li>Review Flight</li> <li>Introduce Logbook</li> <li>Reading/Course Recommendations</li> <li>Schedule Second Lesson</li> </ul>
ssignment	Principles of Flight (PHAK 4-5 to 4-9) Theories of Lift Bernoulli's Principle

Completion Standards: This lesson is complete when the student understands control inputs necessary to execute the fundamentals of flight.

### Flight 1-2: Steep Turns

<u>Duration</u>	1 Hour Flight
<u>Objective</u>	This second lesson should be used to refresh those topics learned in the first lesson. The major addition of this lesson is the steep turn maneuver which should be reviewed on the ground prior to the lesson. Student preflight should still be supervised but they should be allowed to lead the walk around.
<u>Pre-Flight</u>	<ul> <li>Review Assigned Key Topics</li> <li>Introduce Basic Taxiway Markings</li> <li>Introduce Required Documents (ARROW)</li> <li>Overview of Steep Turns</li> <li>Assisted Preflight</li> </ul>
<u>Flight</u>	<ul> <li>Introduce Run up</li> <li>Assisted Taxi</li> <li>Introduce Takeoff</li> <li>Introduce Clearing Turns</li> <li>Introduce Steep Turns (30° Bank)</li> <li>Introduce Shutdown</li> </ul>
Post-Flight	<ul> <li>Review Flight</li> <li>Create IACRA and apply for student license</li> <li>Set up flightschedulepro.com account</li> <li>Introduce Taxi Diagram</li> </ul>
Assignment	Flight Controls (PHAK 6-1 to 6-12) Primary vs Secondary Flight Controls

Completion Standards: This lesson is complete when the student exhibits understanding of the steep turn maneuver and are able to pre-flight the airplane by themselves.

### Flight 1-3: Airspeed

<u>Duration</u>	1 Hour Flight
<u>Objective</u>	The main goal of this flight is to acquire an understanding of the flight characteristics at alternate airspeeds and configuring for such. Power plant operation and a general concept of engine instruments should be introduced as well. The concept of pitching for airspeed in climbs and descents should be demonstrated.
Pre-Flight	<ul> <li>Review Assigned Key Topics</li> <li>Cockpit Management</li> <li>Overview Slow Flight</li> <li>Introduce Maneuvering Speed</li> </ul>
<u>Flight</u>	Assisted Takeoff Alternate Airspeeds Introduce Trim Introduce Slow Flight Introduce Landings
Post-Flight	Review Flight Introduce Medical Classes Duration Instructions for Obtaining Med
<u>Assignment</u>	<ul> <li>Obtain Medical</li> <li>Forces of Flight (PHAK 5-1 to 5-12)</li> <li>Four Forces of Flight</li> <li>Parasite vs Induced Drag</li> <li>Angle of Attack</li> <li>PHAK 14-24</li> <li>Phonetic Alphabet</li> </ul>

Completion Standards: This lesson is complete when the student is capable of flight at alternate speeds and at this point checklists should always be remembered to be used.

### Flight 1-4: Stalls

<u>Duration</u>	1 Hour Flight
<u>Objective</u>	On this lesson the student should begin taking on some of the radio calls with assistance. This lesson will also introduce stalls to the student. Assistance should be given configuring the airplane, and power on stalls should be done with ~2200 rpm initially. Emphasis should be placed on coordination.
Pre-Flight	<ul> <li>Review Assigned Key Topics</li> <li>Overview Radio Communications</li> <li>Overview of Power On/Off Stalls</li> <li>Spin Awareness</li> </ul>
<u>Flight</u>	<ul> <li>Introduce Radios</li> <li>Introduce Power-Off Stall</li> <li>Introduce Power-On Stall</li> <li>Review Basic Instrument Interpretation</li> </ul>
Post-Flight	Review Flight Review Maneuvers
Assignment	Forces of Flight (PHAK 5-14 to 5-32) Stability Aerodynamic Forces in Turns Stalls Left Turning Tendencies Maneuvers (AFH 4-1 to 4-11) Slow Flight Power On Stall Power Off Stall Maneuvers (AFH 9-1)
	Steep Turns

Completion Standards: This lesson is complete when the student is capable of basic radio calls and understands fundamental stall recovery.

### Flight 1-5: Weather

<u>Duration</u>	1 Hour Flight
<u>Objective</u>	Before flying on this lesson the student should be introduced to METARs and TAFs as well as shown the importance of checking the weather before flying. The rectangular course maneuver will be introduced to assist with an upcoming traffic pattern lesson.
<u>Pre-Flight</u>	<ul> <li>Review Assigned Key Topics</li> <li>Introduce METAR &amp; TAF Decoding</li> <li>Introduce Sources for METARs and TAFs</li> <li>Overview Weather Check</li> <li>Overview of Rectangular Course</li> </ul>
<u>Flight</u>	<ul> <li>Discuss Fouled Spark Plugs &amp; Clearing</li> <li>Demonstrate Heading vs Ground Track</li> <li>Introduce Rectangular Course</li> </ul>
Post-Flight	Review Flight Review METAR & TAF
<u>Assignment</u>	<ul> <li>METAR &amp; TAF Decoding</li> <li>Weather Fundamentals (PHAK 12-1 to 12-12)</li> <li>Coriolis Force</li> <li>Standard Lapse Rate</li> <li>High vs Low Pressure</li> <li>Maneuvers (AFH 6-4)</li> <li>Rectangular Course</li> </ul>

Completion Standards: This lesson is complete when the student is capable of a basic weather check and is able to account for wind drift.

### **Ground 1-1: Systems**

<u>Duration</u>	1 Hour Ground
<u>Objective</u>	This will be a ground only lesson on the systems and function of the airplane. System specifications, Vspeeds, VFR required equipment and POH layout should be discussed. The applicable airplane supplement may be used for this lesson which draws its information from the POH.
<u>Discussion</u>	<ul> <li>Review Assigned Key Topics</li> <li>Introduce POH</li> <li>System Specifications</li> <li>Introduce VFR Required Equipment</li> <li>Vspeeds</li> </ul>
<u>Assignment</u>	<ul> <li>Applicable Aircraft Supplement</li> <li>Weather Advanced (PHAK 12-12 to 12-25)</li> <li>Temperature vs Dew Point</li> <li>Thunderstorms</li> <li>Warm vs Cold Fronts</li> <li>Weather Hazards</li> </ul>

Completion Standards: This lesson is complete when the student understands the importance of Vspeeds and grasps the concept of the POH layout.

### Flight 1-6: Traffic Pattern

<u>Duration</u>	1 Hour Flight
<u>Objective</u>	This Flight will be based entirely in the traffic pattern. Although the student has done several assisted landings at this point, time should be spent to thoroughly discuss the traffic pattern. During the flight they should be making their own decisions for landing and most of the radio calls.
Pre-Flight	<ul> <li>Review Assigned Key Topics</li> <li>Breakdown Traffic Pattern</li> <li>Overview of a Go-Around</li> <li>Assisted Weather Check</li> </ul>
<u>Flight</u>	<ul><li>Unassisted Landings</li><li>Assisted Traffic Pattern</li><li>Introduce Go-Around(s)</li></ul>
Post-Flight	Review Flight Introduce FAR/AIM (layout) Part 61 Part 91
<u>Assignment</u>	Weather Sources (PHAK 13-1 to 13-15) METAR & TAF Flight Service AIRMET & SIGMET Weather Charts
	Maneuvers (AFH 7-1 to 7-4) Traffic Pattern

Completion Standards: This lesson is complete when the student requires little assistance landing the aircraft and has begun to make decisions regarding their traffic pattern.

### Flight 1-7: Ground Reference

<u>Duration</u>	1 Hour Flight
<u>Objective</u>	This flight will introduce ground reference maneuvers to the student. Focus should be placed on wind correction, ground track and desired altitude. Proper engine failure procedures should be walked through as well as landing area selection. A complete and thorough weather check should be done with the student.
<u>Pre-Flight</u>	<ul> <li>Review Key Topics</li> <li>Overview Turns Around a Point</li> <li>Overview S-turns</li> <li>Introduce Safe Altitude Concept</li> <li>Thorough Assisted Weather Check (use charts)</li> </ul>
<u>Flight</u>	<ul> <li>Introduce Turns Around a Point</li> <li>Introduce S-turns</li> <li>Introduce Engine Failure</li> <li>Introduce Emergency Checklist</li> </ul>
Post-Flight	Review Flight Review Engine Failure Procedures Review Best Glide
<u>Assignment</u>	Flight Instruments (PHAK 8-1 to 8-11) Types of Altitude Types of Airspeed Maneuvers (AFH 6-6 to 6-7)Turns Around a Point S-Turns

Completion Standards: This lesson is complete when the student is comfortable utilizing an emergency and is able to make most radio calls without assistance. An understanding of ground reference maneuvers should also exist at this time.

### Flight 1-8: Malfunctions

<u>Duration</u>	1 Hour Flight
<u>Objective</u>	Before this flight time should be taken to discuss lost comm procedures and troubleshooting. This flight will also introduce the forward slip maneuver as well as forward slips to landing. After the flight it is important to discuss the topics of wake turbulence and wind shear.
Pre-Flight	Review Assigned Key Topics Lost Comms Light Gun Signals
<u>Flight</u>	Aborted Takeoff Lost Comms Introduce Forward Slips Forward Slips to Landing
Post-Flight	<ul><li>Review Flight</li><li>Wake Turbulence Avoidance</li><li>Wind Shear Avoidance</li></ul>
<u>Assignment</u>	Airport Operations (PHAK 14-1 to 14-15)  Chart Supplement NOTAMs Airport Markings LAHSO Airport Operations (PHAK 14-25 to 14-34) Light Gun Signals Runway Incursion Avoidance Wake Turbulence

Completion Standards: This lesson has been completed when the student is comfortable with lost comm procedures and is capable of executed a proper forward slip

### **Ground 1-2: Airspace**

<u>Duration</u>	1 Hour Ground
<u>Objective</u>	This ground only session will be used to discuss the airspace system and introduce the sectional. A sectional should be used to show the student applicable airspace requirements locally. VFR cloud clearances and equipment requirements should be introduced as a whole but emphasis should be placed on those applicable to upcoming solo flights.
Discussion	<ul> <li>Review Assigned Key Topics</li> <li>Airspace</li> <li>VFR Requirements</li> <li>Equipment Requirements</li> <li>Sectional</li> </ul>
<u>Assignment</u>	Sectional Airspace (PHAK 15-1 to 15-11) Controlled Airspace Special Use Airspace TFRs VFR Cloud Clearances Requirements for Airspace Operations

Completion Standards: This lesson is complete when the student is able to determines local airspace boundaries and altitudes.

### Flight 1-9: Crosswind

<u>Duration</u>	1 Hour Flight
<u>Objective</u>	This lesson will focus entirely on pattern work with a crosswind. Student should be shown how to execute a crosswind approach both by crabbing and with the side slip method. The importance of crosswind taxi and crosswind takeoff control inputs should also be conveyed on this flight as well.
Pre-Flight	<ul> <li>Review Assigned Key Topics</li> <li>Crosswind Limits</li> <li>Overview Crosswind Taxi Inputs</li> <li>Overview Crosswind Approach</li> </ul>
<u>Flight</u>	<ul><li>Crosswind Taxi</li><li>Crosswind Take-off</li><li>Crab Approach</li><li>Side Slip Approach</li></ul>
Post-Flight	<ul> <li>Review Flight</li> <li>Discuss Max Crosswind</li> <li>Crosswind Component Calculation</li> <li>Gust Factor &amp; Approach Speed</li> </ul>
<u>Assignment</u>	Aeromedical Factors (PHAK 17-1 to 17-10) Hypoxia Hyperventilation Spatial Disorientation Optical Illusions

Completion Standards: This lesson is complete when the student is comfortable with crosswind control inputs and understands approach speed adjustments based on wind.

### Flight 1-10: Abnormal Landings

<u>Duration</u>	1 Hour Flight
<u>Objective</u>	This flight will be conducted entirely in the traffic pattern using some alternate landing configurations and scenarios. Student should be introduced to 20°, 10° and no flap landings. Also the concept of a power off 180 can be shown. Power off 180s do not need to be to commercial standards, but the student should be able to return to a runway.
Pre-Flight	<ul><li>Review Assigned Key Topics</li><li>Airspeed and Alternate Flap Settings</li><li>Overview of Power Off 180</li></ul>
<u>Flight</u>	20° Flap Landings 10° Flap Landings No Flap Landings Power Off 180s
Post-Flight	<ul> <li>Review Flight</li> <li>Discuss Endorsements</li> <li>Discuss Alternate Flap Setting Scenarios</li> <li>Review Alternate Approach Speed</li> </ul>
<u>Assignment</u>	Aeromedical Factors (PHAK 17-10 to 17-21) Fatigue Vision in Flight IMSAFE check

Completion Standards: This lesson is complete when the student is comfortable landing with alternate flap settings and understands the necessary approach speed adjustments when doing so. Power off 180s should be able to be performed to a runway.

### Flight 1-11: Emergencies

<u>Duration</u>	1 Hour Flight
<u>Objective</u>	This flight is used as a review for emergency procedures which will be presented as scenarios. Time at the end of the lesson should be taken to introduce the pre-solo written so it may be completed and studied. Review with student sources of information they may use to locate the answers on the written.
<u>Pre-Flight</u>	<ul> <li>Review Assigned Key Topics</li> <li>Review Engine Failure Procedures</li> <li>Review Electrical Failure Procedures</li> <li>Discuss Engine Fire During Start</li> <li>Discuss Engine Fire In Flight</li> </ul>
<u>Flight</u>	<ul><li>Simulated Engine Failure (Scenario)</li><li>Simulated Electrical Failure (Scenario)</li><li>Lost Comms (Scenario)</li></ul>
Post-Flight	Review Flight Introduce Pre-Solo Written
<u>Assignment</u>	Pre-Solo Written

Completion Standards: This lesson has been completed when the student is comfortable handling the above mentioned scenarios.

### Flight 2-1: Solo Evaluation

<u>Duration</u>	1 Hour Flight
<u>Objective</u>	This flight should evaluate the students ability for their upcoming solo. This initial evaluation should consist of stalls, emergency procedures, and full stop landings.
Pre-Flight	<ul> <li>Review Pre-Solo Written</li> <li>Review Stalls</li> <li>Review Emergencies</li> <li>Review Preflight Inspection</li> </ul>
<u>Flight</u>	Maneuvers Power-On Stalls Power-Off Stalls Slow Flight Forward Slips Emergency Scenario Full Stop Landings
Post-Flight	Review Flight Review Weather Check
<u>Assignment</u>	Documents & Inspections (PHAK 9-1 to 9-13) POH Aircraft Inspections Airworthiness Directives Special Flight Permit

Completion Standards: This lesson is complete when the student conducts the listed maneuvers safely and is capable of making all departure and entry radio calls as well as all altitude decisions on their own.

### Flight 2-2: Solo Evaluation

<u>Duration</u>	1 Hour Flight
<u>Objective</u>	This flight should evaluate the students ability for their upcoming solo. This second evaluation should take place solely in the traffic pattern unless there were any areas of concern on the previous flight. Landings should be full stop taxi backs with some variations in flap settings. A no flap landing and power off 180 should be done for review.
Pre-Flight	<ul> <li>Review Assigned Key Topics</li> <li>Review POH</li> <li>Introduce Maintenance Logs &amp; Inspections</li> <li>Annual</li> <li>100 Hour</li> <li>ELT</li> </ul>
<u>Flight</u>	Landings (Full-Stop Taxi Back) Power-off 180 No Flap Landing
Post-Flight	Review Flight
Assignment	Aeronautical Decision Making (PHAK 2-1 to 2-11) Hazardous Attitudes PAVE Checklist

Completion Standards: This lesson is complete when the student performs all landings with zero input from the instructor and makes all radio calls.

### Flight 2-3: Initial Solo

<u>Duration</u>	1 Hour Flight
<u>Objective</u>	This will be the students first solo flight and they are to remain in the traffic pattern. A few landings should be done with the instructor first to warm them up and ensure they are prepared. Ensure the student has their logbook and medical with the proper endorsements before exiting the airplane.
Pre-Flight	Review Assigned Key Topics Verify Pre-Flight Verify Weather
<u>Flight</u>	Landings (Full-Stop) Endorsements6 Solo (Pattern)
Post-Flight	<ul> <li>Review Flight</li> <li>Review Limitations</li> <li>Review Crosswind Calculation</li> <li>Review Departing and Entry Procedures</li> </ul>
<u>Assignment</u>	Review Pre-Solo Written Review Endorsement Limitations

Completion Standards: This lesson is complete when the student performs several solo full stop taxi backs.

### Flight 2-4: Repeated Solo

<u>Duration</u>	1 Hour Solo
<u>Objective</u>	This will be the students first solo flight from start to finish. This flight should be conducted locally in the traffic pattern so they may become accustomed to their new responsibilities in a controlled environment. They will schedule, check weather, preflight and conduct the flight on their own.
<u>Flight</u>	Traffic Pattern Landings (Full-Stops)
Assignment	Review Pre-Solo Written Review Endorsement Limitations

Completion Standards: This lesson is complete when the student logs 1 hour of solo flight time

### Flight 2-5: Repeated Solo

<u>Duration</u>	1 Hour Solo
<u>Objective</u>	This will be the students second completely solo lesson. On this flight the student may depart the traffic pattern and fly locally at the instructors discretion. The student will schedule, check weather, preflight and conduct the flight on their own.
<u>Flight</u>	Landings (Full-Stop) Local Flying
Assignment	VORs (PHAK 16-22 to 16-27) VORs Tracking Intercepting

Completion Standards: This lesson is complete when the student logs another hour of solo time, their total solo at this point should be 2.6

### Flight 3-1: Simulated Instrument

<u>Duration</u>	1 Hour Flight
<u>Objective</u>	This flight will introduce simulated instrument flying, VOR tracking, short field takeoffs and short field landings to the student. Time should be taken before the flight to introduce VORs as well as a basic instrument scan. The student should also receive a quick overview of short field takeoffs and landings as well.
<u>Pre-Flight</u>	<ul> <li>Review Key Topics</li> <li>Overview VOR</li> <li>Overview Instrument Scan</li> <li>Overview Short-Field Take Off</li> <li>Overview Short-Field Landings</li> </ul>
<u>Flight</u>	<ul> <li>.5 Simulated Instrument (fundamentals)</li> <li>VOR Tracking</li> <li>Introduce Short-Field Take Offs</li> <li>Introduce Short-Field Landings</li> </ul>
Post-Flight	Review Flight Gyroscopic vs Pitot Static Instruments Discuss Minimum Equipment List
Assignment	Magnetic Compass (AFH 8-23 to 8-28) Compass Errors

Completion Standards: This lesson is complete when the student is able to tune in and track VORs as well as perform the fundamentals of flight under the hood.

### Flight 3-2: Simulated Instrument

<u>Duration</u>	1 Hour Flight
<u>Objective</u>	This flight will allow the student some more time under the hood. In addition to the fundamentals which were learned on the last lesson, unusual attitudes should now be introduced. After hood work compass errors should be introduced by covering the directional gyro and having the student fly by the compass. At some point on this lesson soft field takeoffs and landings should also be introduced.
<u>Pre-Flight</u>	<ul><li>Overview GPS</li><li>Overview Compass Errors</li><li>Overview Soft-Field Take Offs</li><li>Overview Soft-Field Landings</li></ul>
<u>Flight</u>	5 Simulated Instrument (VOR/GPS Tracking) Introduce Unusual Attitudes Compass Error UNOS ANDS Soft Field Take Offs Soft Field Landings
Post-Flight	Review Flight
Assignment	Maneuvers (AFH 5-8 to 5-10) Soft-Field Take Off Soft-Field Landing

Completion Standards: This lesson is complete when the student understands the fundamentals of unusual attitude recovery and can anticipate compass errors.

### **Ground 3-1: Weight & Balance**

<u>Duration</u>	1 Hour Ground
<u>Objective</u>	The purpose of this ground lesson with be to work with student on several weight and balance calculations. The concepts of manipulating CG and weight with fuel/baggage adjustments should be shown. The calculations done should be done for the make and model the student is training in as well as several scenarios based on the students interest.
Discussion	Gross Take Off Weight Aft CG Forward CG POH Normal vs Utility Category Calculate Sample Weight and Balance Limitations Discuss Future Endorsements High Performance Tail Wheel High Altitude Type Rating
<u>Assignment</u>	Aircraft Performance (PHAK 11-1 to 11-12) Density vs Pressure Altitude

Completion Standards: This lesson is complete when the student is able to perform weight and balance calculations without assistance.

### Flight 3-3: Non-Towered Airports

<u>Duration</u>	1.5 Hour Flight
<u>Objective</u>	On this flight you introduce the student to the procedures for traveling to other airports. Before the flight you should review with the student the sources of information required. Non-towered airports should be used. Navigation, pattern entry, radio, and departure procedures should be demonstrated. In order to keep this lesson at 1.5, hood time should be done en-route to the first airport and when returning after the last airport.
<u>Pre-Flight</u>	<ul> <li>Review Assigned Key Topics</li> <li>Introduce Non-Towered Airport</li> <li>Operations</li> <li>Review Chart Supplement</li> <li>Discuss LAHSO</li> <li>Discuss Hotspots</li> </ul>
<u>Flight</u>	<ul><li> Non-Towered Airports</li><li>5 Simulated Instrument (VOR/GPS Tracking)</li><li> Unusual Attitudes</li></ul>
Post-Flight	<ul><li>Review Flight</li><li>Discuss Accident Reporting</li><li>Review Non-Towered Airport Operations</li></ul>
<u>Assignment</u>	<ul><li>Performance Charts (PHAK 11-14 to 11-27)</li><li>Interpolation vs Extrapolation</li><li>Aircraft Limitations</li></ul>

Completion Standards: This lesson is complete when the student is able to enter the traffic pattern at a non-towered airport and make all radio calls with little assistance

### **Ground 3-2: Performance**

<u>Duration</u>	1 Hour Ground
<u>Objective</u>	This ground lesson should be dedicated to calculating the performance of the students aircraft. Emphasis should be placed on the effects of temperature, pressure, and weight on these numbers. The applicable POH should be used and the student should be comfortable looking up any needed information. Scenario based examples applicable to the students interests should be used. E6B should be introduced/used.
<u>Discussion</u>	<ul> <li>Review Assigned Key Topics</li> <li>Introduce E6B</li> <li>POH Usage</li> <li>Calculate Performance</li> <li>Take off/Landing Distance</li> <li>Cruise Performance</li> <li>True Airspeed</li> <li>Calibrated Airspeed</li> <li>Indicated Airspeed</li> </ul>
<u>Assignment</u>	<ul> <li>E6B Practice</li> <li>Navigation (PHAK 16-1 to 16-15)</li> <li>Variation &amp; Deviation</li> <li>Pilotage</li> <li>Dead Reckoning</li> </ul>

Completion Standards: This lesson is complete when the student is completely comfortable locating information in the POH and understands how to use the above listed performance charts.

### **Ground 3-3: Cross Country Planning**

**Duration** 1 Hour Ground Objective This ground session should be used to plan an upcoming cross country flight. Ideally this nav log should be filled out completely but advise the student that they may carry over the points, distances, etc. onto their flight 3-3 flight plan. This completed example will be used by the student as a template for further cross countries. Emphasis should be placed on using the POH, A/FD, and Sectional for obtaining information. The E6B should be used heavily. At this point the student should have a substantial amount of background knowledge and should being studying for the written. Take time to go over with the student their options for studying for the test. Discussion Route Selection Point Selection \_\_ Discuss CFIT \_\_ VFR Cruising Altitudes \_\_ Safe Altitudes \_\_ Fuel Requirements \_\_ Discuss Selecting Alternates Discuss Options for Written Study Assianment Flight 3-3 Flight Plan Begin Written Study

Completion Standards: This lesson is complete when the student is able to complete a cross country navigation log on their own and has completed all assigned readings.

### Flight 3-4: Short Cross Country

<u>Duration</u>	1.5 Hour Flight
<u>Objective</u>	As this is the first cross country flight with the student a heavy focus should be placed on pilotage & dead reckoning. A VFR flight plan should be used and filed. The student should navigate using the nav log alone, flight following will be used on future flights.
Pre-Flight	<ul> <li>Review Flight Plan</li> <li>Introduce Flight Service</li> <li>File Flight Plan</li> <li>Lost Procedures</li> </ul>
<u>Flight</u>	Open Flight Plan Transition Calls Pilotage Dead Reckoning
Post-Flight	Review Flight Close Flight Plan
<u>Assignment</u>	Flight 3-4 Flight Plan Written Study

Completion Standards: This lesson is complete when you have finished a cross country flight with the student.

### Flight 3-5: Medium Cross Country

<u>Duration</u>	1.5 Hour Flight
<u>Objective</u>	This second cross country should add in other means of navigation such as VOR tracking and the GPS. The student should have completed a flight plan which should be followed however certain legs may be navigated using a VOR or GPS. A diversion scenario should be introduced and the student should be walked through the necessary steps. A new destination should be used.
Pre-Flight	<ul> <li>Review Flight Plan</li> <li>File Flight Plan</li> <li>Discuss Diversion Scenarios</li> <li>Discuss Diversion Calculation</li> </ul>
<u>Flight</u>	Open Flight Plan VOR Navigation GPS Navigation Diversion
Post-Flight	Review Flight Close Flight Plan
<u>Assignment</u>	Flight 3-5 Flight Plan Written Study

Completion Standards: This lesson is complete when you have finished a second cross country with the student and they are comfortable opening/closing their flight plan. The student should also be able to use the GPS with little assistance at this time.

### Flight 3-6: Cross Country Evaluation

<u>Duration</u>	1.5 Hour Flight
<u>Objective</u>	This flight should serve as an evaluation for the students upcoming solo cross countries. Student should be making all flight decisions and corrected when necessary. All previous cross country skills should be reviewed with the addition of flight following. A third destination should be used. On the return leg it may be useful to have them return to a nearby non-towered airport for use on the following solo flight.
<u>Pre-Flight</u>	Review Flight Plan Introduce Flight Following File Flight Plan
<u>Flight</u>	Open Flight Plan Pick Up Flight Following
Post-Flight	<ul> <li>Review Flight</li> <li>Close Flight Plan</li> <li>Review Flight Plan vs Flight Following</li> <li>Review Entering Airspace</li> <li>Review Applicable Airspace</li> <li>25nm Solo Endorsement</li> </ul>
<u>Assignment</u>	Written Study

Completion Standards: This lesson is complete when the student exhibits all necessary skills pertaining to a cross country flight and you are comfortable signing them off.

### Flight 3-7: Local Solo

<u>Duration</u>	1.2 Hour Solo
<u>Objective</u>	The student should conduct a local solo flight remaining within 25nm. It would be useful to have them go to another nearby airport so they can ensure they're comfortable with entry/departure procedures. The purpose of this flight is to make them more comfortable for their upcoming solo cross country.
<u>Flight</u>	Steep Turns VOR Tracking GPS usage Non-Towered Airport
Assignment	Flight 3-7 Flight Plan Written Study

Completion Standards: This lesson is complete when the student logs a third solo flight, their total solo should be 3.8 at this time.

### Flight 3-8: Solo Cross Country

<u>Duration</u>	1.5 Hour Solo
<u>Objective</u>	This will be the students first of three solo cross countries. The destination used should be close to 50nm and ideally somewhere you took them previously. The flight plan should be reviewed and the student should receive the applicable endorsements prior to leaving.
<u>Pre-Flight</u>	<ul> <li>Review Flight Plan</li> <li>Review Weather</li> <li>Review Pre-Flight</li> <li>Endorse</li> <li>Review Limitations</li> <li>File Flight Plan</li> <li>Advise to Begin Written Practice Tests</li> </ul>
<u>Flight</u>	Open Flight Plan Pilotage
Post-Flight	Close Flight Plan
<u>Assignment</u>	Flight 3-8 Flight Plan Written Practice Tests

Completion Standards: This lesson is complete when a solo cross country has been finished.

### Flight 3-9: Solo Cross Country

<u>Duration</u>	1.5 Hour Solo
<u>Objective</u>	This will be the students second of three solo cross countries. The designation used should be close to 50nm and ideally somewhere you took them previously. The flight plan should be reviewed and the student should receive the applicable endorsements prior to leaving.
Pre-Flight	Review Flight Plan Review Weather Review Pre-Flight Endorse Review Limitations File Flight Plan
<u>Flight</u>	Open Flight Plan Pilotage
Post-Flight	Close Flight Plan
<u>Assignment</u>	Written Practice Tests

Completion Standards: This lesson is complete when the student finishes a second solo cross country.

### Flight 3-10: Night Cross Country

<u>Duration</u>	1.8 Hour Flight
<u>Objective</u>	This will be the first of two night flights for the student. This flight should be used to introduce the differences in pre-flighting, flight planning, and flying at night. The student will come in with a flight plan for this lesson but advise them of the types of points they will want to use at night. A fourth destination should be used.
Pre-Flight	Review Flight Plan Pre-Flight
<u>Flight</u>	Flight Following GPS
Post-Flight	Review Flight Written Endorsement
<u>Assignment</u>	Take Written

Completion Standards: This lesson is complete when the night cross country requirement has been fulfilled and the written has been taken.

### Flight 3-11: Night Landings

<b>Duration</b>	1.2 Hour Flight
<u>Objective</u>	This flight should be used to review the pre-flight and night flying procedures. The types of night should be introduced as well as night illusions. The duration of this local flight should be whatever is needed to fulfill the 3 hour night flying requirement. 8 landings (full stop) should be done for a total of 10 night landings at this point.
Pre-Flight	<ul> <li>Night Illusions</li> <li>Review Aeromedical</li> <li>Pre-Flight</li> <li>Review Hours of Operation Chart Supplement</li> </ul>
<u>Flight</u>	Full Stop Landings
Post-Flight	<ul><li>Review Flight</li><li>Advise Long Cross Country Destinations</li><li>Introduce Oral Exam Guide</li></ul>
<u>Assignment</u>	Begin Oral Study

Completion Standards: This lesson is complete when all night requirements have been fulfilled.

### Flight 3-12: Solo XC (150nm)

<u>Duration</u>	2 Hour Flight
<u>Objective</u>	This will be the students final cross country and should cover a distance of 150nm. Use a combination of the airports you have taken them to come up with this distance. Review the preflight planning weather and sign the appropriate endorsements. Ensure the student has the appropriate information before leaving (taxi diagram, A/FD, sectional, etc.).
Pre-Flight	<ul> <li>Review Flight Plan</li> <li>Review Pre-Flight</li> <li>Review Weather</li> <li>Endorse</li> <li>File Flight Plan</li> </ul>
<u>Flight</u>	Open Flight Plan Pilotage Dead Reckoning
Post-Flight	Close Flight Plan
<u>Assignment</u>	Review Maneuvers in Airplane Flying Handbook Oral Study

Completion Standards: This lesson is complete when the solo cross country requirement has been fulfilled.

### Flight 4-1: Checkride Prep

<u>Duration</u>	1.5 Hour Flight	
<u>Objective</u>	landings and ensure they are should be procedurally correcthe practical test standards ye should be introduced on this formulation between bank ang	eview all check ride maneuvers and conducted safely. The maneuvers t and safe but not necessarily within et. The accelerated stall maneuver light as well demonstrating the le and stall speed. After the flight euvers he/she may or may not
<u>Pre-Flight</u>	Discuss Practical Introduce ACS Overview Accelerated Stal	I
<u>Flight</u>	Soft Field Take-off Soft Field Landing Short Field Landing Short Field Take-off Slips to Landing Steep Turns Slow Flight	<ul> <li>Power-On Stalls</li> <li>Power-Off Stalls</li> <li>Introduce Accelerated Stalls</li> <li>S-Turns</li> <li>Turns Around a Point</li> <li>Rectangular Course</li> <li>Forward Slips</li> </ul>
Post-Flight	Review Flight Discuss Solo Maneuvers	
Assignment	Review Maneuvers in Airpl Oral Study	ane Flying Handbook

Completion Standards: This lesson is complete when the student is able to conduct all maneuvers safely and procedurally correct with little assistance.

### Flight 4-2: Checkride Prep

<u>Duration</u>	1 Hour Flight
<u>Objective</u>	This second checkride prep will focus on the navigational requirements of the checkride. It should serve as a review for these topics and as such assistance may be given if needed. The student should need little assistance looking up information regarding operation at non-towered airports regarding frequencies and airspace.
Pre-Flight	<ul><li>Review Applicable Airspace</li><li>Review Non Towered Operations</li><li>Review VORs</li><li>Review Diversion Calculation</li></ul>
<u>Flight</u>	<ul> <li>.5 Simulated Instrument</li> <li>Unusual Attitudes</li> <li>Diversion Calculation</li> <li>Non Towered Airport</li> <li>VOR Tuning and Tracking</li> </ul>
Post-Flight	<ul> <li>Review Flight</li> <li>Discuss Limitations for the Following Solo Flight</li> <li>Ensure Current Solo Endorsements</li> </ul>
<u>Assignment</u>	Oral Study

Completion Standards: This lesson is complete when the student is able to recover from unusual attitudes on their own and can complete diversion calculations with little assistance.

### Flight 4-3: Solo Checkride Prep

<u>Duration</u>	1.2 Hour Solo
<u>Objective</u>	This solo flight will be used to practice the previously cleared maneuvers solo. Only those maneuvers that have been deemed safe for solo flying should be practiced. The purpose of this flight is to fulfill the solo requirement and increase the students comfort level for the checkride. The duration of this flight should be adjusted to fulfill the solo requirement.
<u>Flight</u>	<ul><li>Solo Maneuvers (as approved)</li><li>Landings</li><li>Nontowered Airport (within 25nm as approved)</li></ul>
<u>Assignment</u>	Oral Study

Completion Standards: This lesson is complete when the solo flight time requirement has been fulfilled.

### **Ground 4-1: Checkride Prep**

<u>Duration</u>	1.5 Ground
<u>Objective</u>	This ground lesson should be used to gauge the students preparation for the oral portion of the check ride. FAA materials should be used such as the Practical Test Standards and the Oral Exam Guide. Areas of deficiency should be pointed out and assigned to study. Emphasis should be placed on where to look answers up.
<u>Flight</u>	<ul> <li>Practical Test Standards</li> <li>Oral Exam Guide</li> <li>Information Sources</li> <li>Pilot Handbook of Aeronautical Knowledge</li> <li>Airplane Flying Handbook</li> <li>FAR/AIM</li> <li>A/FD</li> <li>Sectional</li> <li>POH</li> </ul>
<u>Assignment</u>	Study Areas of Deficiency Schedule Checkride (1-2 weeks out)

Completion Standards: This lesson is complete when the student utilizes the appropriate source of information for locating answers.

### **Ground 4-2: Checkride Prep**

<u>Duration</u>	1.5 Hour Ground
<u>Objective</u>	This ground lesson should be conducted as a practice oral following the Practical Test Standards. Questions asked should be scenario based and cover situations the student may come in contact with
<u>Flight</u>	<ul> <li>Practical Test Standards</li> <li>Oral Exam Guide</li> <li>Pilot Handbook of Aeronautical Knowledge</li> <li>Airplane Flying Handbook</li> <li>FAR/AIM</li> <li>Performance Calculation</li> </ul>
<u>Assignment</u>	Study Areas of Deficiency

Completion Standards: This lesson is complete when the student exhibits sufficient knowledge in all areas outlined in the ACS.

### Flight 4-4: Simulated Checkride

<u>Duration</u>	1.5 Hour Flight
<u>Objective</u>	This flight should be conducted as a simulated practical.  Maneuvers should be performed procedurally correct and in line with the ACS. Areas of deficiency should be noted but maneuvers should not be repeated unless necessary.
Pre-Flight	Brief Student
<u>Flight</u>	Diversion Landings5 Sim Instrument + Unusual Attitudes Maneuvers Ground Ref VOR Tune & Track
Post-Flight	Review Areas of Deficiency
<u>Assignment</u>	Total Logbook

Completion Standards: This lesson is complete when the tasks listed above are all completed within reason with no assistance.

### Flight 4-5: Simulated Checkride

<u>Duration</u>	1.5 Hour Flight
<u>Objective</u>	This flight should be conducted as another simulated practical. Maneuvers should be performed procedurally correct and in line with the ACS. Areas of deficiency should be noted but maneuvers should not be repeated unless necessary. After the lesson ensure all items on the checkride checklist are completed and brought to checkride.
Pre-Flight	Brief Student
<u>Flight</u>	<ul> <li>Diversion</li> <li>Landings</li> <li>.5 Sim Instrument + Unusual Attitudes</li> <li>Maneuvers</li> <li>Ground Ref</li> </ul>
Post-Flight	IACRA Begin Checkride Packet Endorsements
<u>Assignment</u>	Private Pilot Checkride Checklist

Completion Standards: This lesson is complete when the student meets all requirements for the checkride and executes the tasks listed above within ACS with no assistance.

### **Appendix**

### **Supplemental Reading**

Topic	PHAK	AFH	FAR	AIM
Introduction	Chapter 1	Chapter 1	FAR Part 1 1.1, 1.2 FAR Part 61 61.3, 61.15, 61.23, 61.60, 61.101, 61.113 FAR Part 91 91.3, 91.17	
Airplane Systems & Flight Fundamentals	Chapter 5, 6, 7	Chapter 2, 3	FAR Part 91 91.103	
Aerodynamic Principles & Airport Traffic Pattern	Chapter 3,	Chapter 5, 7, 8		Pilot/Controller Glossary
The Flight Environment & Airport Operations	Chapter 2, 14	Chapter 4, 17	FAR Part 61 61.95 FAR Part 91 91.15, 91.105, 91.107, 91.111, 91.113, 91.117, 91.119, 91.121, 91.123, 91.125, 91.126, 91.127, 91.129, 91.130, 91.131, 91.135, 91.159, 91.215, 91.303, 91.307, 91.309	AIM Chapter 2 2-1-1: 2-1-5 2-1-8: 2-1-11 2-2-1: 2-2-3 2-3-1: 2-3-15  AIM Chapter 4 4-1-1: 4-1-4 4-1-6: 4-1-9 4-1-11: 4-1-13 4-1-15: 4-1-20 4-2-1: 4-2-14 4-3-1: 4-3-26 4-4-1, 4-4-4 4-4-6: 4-4-7 4-4-9: 4-4-10 4-4-13: 4-4-15 4-5-1: 4-5-3 4-5-7
Flight Instruments & Ground Reference Maneuvers	Chapter 8	Chapter 6		
Aircraft Performance & Meteorology	Chapter 11, 12, 13	Chapter 9, pages 9-1 – 9-3	<u>FAR Part 91</u> 91.155, 91.157	AIM Chapter 7 7-1-1: 7-1-31 7-2-1: 7-2-5 7-3-1: 7-3-9 7-4-1: 7-4-6 7-5-1: 7-5-9 7-6-1: 7-6-3

Topic	PHAK	AFH	FAR	AIM
Airworthiness	Chapter 9, 10		FAR Part 21 21.181 FAR Part 39 39.3 FAR Part 43 43.1: 43.9 FAR Part 91 91.7, 91.9, 91.203, 91.205, 91.207, 91.313, 91.319, 91.403, 91.405, 91.407, 91.409, 91.413, 91.417	
Navigation & Night Environment	Chapter 15, 16	Chapter 10	FAR Part 61 61.95 FAR Part 91 91.151, 91.209	AIM Chapter 1 1-1-1: 1-1-8, 1-1-11: 1-1-13 1-1-17: 1-1-18 AIM Chapter 3 3-1-1: 3-1-5 3-2-1: 3-2-6 3-3-1: 3-3-2 3-4-1: 3-4-8 3-5-1: 3-5-8 AIM Chapter 5 5-1-1, 5-1-3 5-1-4, 5-1-6 5-1-11: 5-1-14 5-2-1, 5-2-3 5-2-4, 5-5-8 5-6-1, 5-6-4
<b>Aeromedical Factors</b>	Chapter 17		<u>FAR Part 91</u> 91.211	<u>AIM Chapter 8</u> 8-1-1 : 8-1-8
Cross Country Flying	Chapter 15, 16 review			AIM Chapter 6 6-1-1: 6-1-2 6-2-1: 6-2-6 6-3-1: 6-3-4 6-4-1: 6-4-3 AIM Chapter 9 9-1-1: 9-1-4
Additional Ratings and Accident Reporting			FAR Part 61 61.31, 61.56, 61.57, 61.69 NTSB 830	

### **Private Pilot Checkride Checklist**

- Completed Nav Log
- Completed Airworthiness & Inspections
- Written Test Results
- Medical
- Totaled Log Book
- Examiners Fee (Cash)
- Weight & Balance
- View Limiting Device
- Proper Endorsements
- Completed IACRA
- Current Sectional
- Current A/FD
- Current FAR/AIM
- E6B
- Plotter

# Airworthiness Checklist

Aircraft	Student	Date	

### **VFR Day**

### Anti-Collision Lights

- Oil Pressure **T**achometer
- Manifold Pressure

Airworthiness Certificate

External Data Plate

Documents

Registration Certificate Radio Station License

- Airspeed Indicator
  - **T**emperature
- Oil Temperature Fuel Gauges

Weight and Balance Data Compass Deviation Card

Operating Handbook

- Landing Gear Position Light
  - Magnetic Heading Indicator **Altimeter**
- Seat belts

### **VFR Night**

- All VFR Day Equipment Fuse's
  - Anti-Collision Lights Landing Light

Static & Encoder (24 Months) ELT & Battery (12 Months)

Airworthiness Directives

Transponder (24 Months)

Altimeter (24 Months)

VOR Check (30 Days)

**1**00 Hour

Annual (12 Months)

Inspections

Position Lights Source of Power

### IFR PR

- All VFR Night Equipment All VFR Day Equipment
  - **G**enerator/Alternator
- Rate of Turn Indicator Attitude Indicator
- Clock w/ Second Hand
- Altimeter (Pressure Sensitive) Radio Equipment
  - **Directional Gyro**

## **D**ME (Above 24,000)

# Inop Equipment

- No Inoperative Equipment
- \_\_ Inoperative Equipment \_\_ Removed Disabled
- **Placarded**