



SPORT PILOT TRAINING SYLLABUS

LESSON ONE: INTRODUCTORY FLIGHT

TIME: 1 hour Ground Instruction; 1 hour Flight Instruction

OBJECTIVE: To introduce the student to the basics of Light Sport Airplanes and Light Sport Flight.

HOME STUDY: “DSFI Procedures & Policies”; “Sport Pilot Aviator’s Model Code of Conduct”; Pilot’s Handbook of Aeronautical Knowledge (**PHAK**) Chapters 1 – 3; Airplane Flying Handbook (**AFH**) Chapters 1-3;

NEW LESSON ITEMS: Preflight planning; preflight inspection; aircraft entry; positive exchange of controls; checklist usage; engine starting procedures; taxiing; pre-takeoff check; takeoff; collision avoidance/scanning; the four fundamentals of flight (straight and level, turns, climbs, descents); use of trim and flaps; landing; post-flight procedures; logbook and flight training record entries.

COMPLETION STANDARDS: The lesson is complete when the student observes: the importance of preflight planning and aircraft inspection; how to enter the aircraft; techniques for positive exchange of controls; how to locate the checklist and it’s proper usage; how to start the engine; how to taxi, and taxis the airplane; the pre-takeoff check; the take off; traffic scanning techniques; the four fundamentals of flight through hands on experience to include the relationship of pitch and power and the control of airspeed and altitude; the use and purpose of trim; the use of flaps and their effect; landing the airplane; exiting the airplane; securing the airplane; how to enter the flight in the pilot logbook and flight training records.

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LESSON TWO: BASIC FLIGHT MANEUVERS

TIME: 45 minutes Ground Instruction; 1 – 2 hours Flight Instruction

HOME STUDY: Review: **PHAK** Chap 1 – 3; **AFH** Chap 1 – 3;
Read: **PHAK** Chapters 4 – 6 & 8; **AFH** Chapters 4 & 7

REVIEW LESSON ITEMS: Preflight planning and inspection; cockpit entry; checklist usage; positive exchange of controls; starting procedures; taxiing; pre-takeoff check; take off; traffic scanning; the four fundamentals; airspeed and altitude control; use of trim and flaps; landing; post flight procedures.

NEW LESSON ITEMS: Slow Flight; Introduction to Stalls; Traffic Pattern Entries

COMPLETION STANDARDS: This lesson will have been successfully completed when the student can, with instructor assistance: conduct a preflight inspection to include weight & balance calculation; properly use checklists; start the engine; taxi; perform a pre-take off check; take off; coordinated climb to altitude; demonstrate an understanding of the four fundamentals and control of airspeed and altitude; display an understanding of proper traffic pattern entries; secure the aircraft; make proper logbook and flight training records.



LESSON THREE: HIGH FLIGHT MANEUVERS

TIME: 1-2 hours Ground Instruction; 1-2 hours Flight Instruction

HOME STUDY: Review all previously assigned reading; Read **PHAK** Chapter 8 & 9

REVIEW LESSON ITEMS: Preflight planning and inspection; cockpit entry; checklist usage; positive exchange of controls; starting procedures; taxiing; pre-takeoff check; take off; traffic scanning; the four fundamentals; airspeed and altitude control; use of trim and flaps; Slow Flight; Introduction to Stalls; Traffic Pattern Entries; landing; post flight procedures.

NEW LESSON ITEMS: Power off and power on stalls and recoveries; spin awareness; steep turns.

COMPLETION STANDARDS: The lesson will have been successfully completed when the student demonstrates proficiency in preflight planning and inspection, cockpit entry, checklist usage, positive exchange of controls, starting procedures, taxiing, pre-takeoff check, take off, traffic scanning, and post-flight procedures without instructor assistance. The student should be able to maintain altitude +/- 250 feet, airspeed +/- 20 kt, heading +/- 20°. Finally the student will display an understanding of maneuvering during slow flight, the indications of an approaching stall and the proper stall recovery procedures, as well as the conditions necessary for a spin to occur.

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LESSON FOUR: LOW FLIGHT MANEUVERS

TIME: 1-2 hours Ground Instruction; 1-2 hours Flight Instruction

HOME STUDY: Read **AFH** Chapters 6 & 7; **PHAK** Chapters 15 & 16
Review as necessary

REVIEW LESSON ITEMS: Power off and power on stalls and recoveries; spin awareness; steep turns.

NEW LESSON ITEMS: Turns around a point; S-Turns along a reference line; Rectangular Patterns.

COMPLETION STANDARDS: The lesson will have been successfully completed when the student demonstrates improved proficiency in maneuvering during slow flight and in stall recognition and recovery. In steep turns and ground reference maneuvers the student will be able to maintain: altitude +/- 200 feet; airspeed +/- 20 knots; and roll out of turns +/- 20°.

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LESSON FIVE: TAKE OFFS AND LANDINGS

TIME: 1-2 hours Ground Instruction; 2-3 hours Flight Instruction

HOME STUDY: Read: **PHAK** Chapters 11, & 12; Review as necessary

REVIEW LESSON ITEMS: Turns around a point; S-Turns along a reference line; Rectangular Patterns.

NEW LESSON ITEMS: Traffic Pattern Entries; Collision Avoidance and Scanning procedures in the Traffic Pattern; Traffic Patterns to low approaches; take offs and landings; go-arounds.

COMPLETION STANDARDS: The lesson will have been successfully completed when the student: is able to fly ground reference maneuvers with altitude +/- 150 feet, airspeed +/- 15 knots; has shown an increase in proficiency in flying the traffic pattern, with altitude +/- 150 feet, airspeed +/- 15 knots, and maintains appropriate headings and distance from the runway, as well as uses proper scanning and collision avoidance procedures; the student will show an understanding of go-around procedures and how to recover from bouncing and ballooning during landings; the student will be able to make landings with occasional instructor assistance.



LESSON SIX: EMERGENCY PROCEDURES IN THE PATTERN

TIME: .5 - 1 hour Ground Instruction; 2-3 hours Flight Instruction

HOME STUDY: Read: **AFH** Chapter 16; Review as necessary

REVIEW LESSON ITEMS: Traffic Patterns; Take offs and Landings; Go-arounds.

NEW LESSON ITEMS: Simulated engine failures to a landing; Forward slip to a landing; landing without flaps; communication in the traffic pattern; right-of-way regulations in the pattern.

COMPLETION STANDARDS: The lesson will have been successfully completed when the student: demonstrates an increase in proficiency in flying the traffic pattern, with altitude +/- 150 feet, airspeed +/- 15 knots, and maintains appropriate headings and distance from the runway, as well as uses proper scanning and collision avoidance procedures; is able to make the majority of the landings without instructor assistance; is able to make the decision to go-around without instructor assistance; is able to land, with sufficient remaining runway, during simulated engine failures with occasional instructor assistance; is able to land without the use of flaps using the forward slip as necessary, with occasional instructor assistance; understands right-of way regulations in the pattern.



STAGE CHECK: ONE

OBJECTIVE: To insure that the student pilot has met the completion standards of lessons one through six.

ORAL CHECK: The student pilot will be orally quizzed on : preflight planning; aircraft systems; aircraft performance; weight and balance; visual scanning techniques; “hot spots” for “see and avoid” collision avoidance in the pattern; proper radio usage in the “airport traffic area”; FARs relative to student pilot solo limitations, and responsibilities.

FLIGHT CHECK: The student pilot will demonstrate: aircraft preflight inspection; checklist usage; engine starting; taxiing; pre-takeoff checks; “high” maneuvers (slow flight, power off and on stalls and recoveries, steep turns); ground reference maneuvers; takeoffs and landings (both normal and crosswind); go arounds; no flap landings; forward slips; simulated engine failure to a landing. *note – oral questioning will continue during flight check.

COMPLETION STANDARDS: Stage Check One will be successfully completed when the student demonstrates: the ability to perform all maneuvers safely, without the assistance of the instructor; the knowledge exam has been successfully completed; all required endorsements have been entered on/in the student’s certificate and logbook.



LESSON SEVEN: SUPERVISED SOLO TAKE OFFS & LANDINGS

TIME: 1-2 hours Ground Instruction; 1 hour Flight Instruction; 2-3 hours Solo Flight

HOME STUDY: Read **PHAK** Chapter 13 –1 through 13 – 3; Review all previously assigned reading.

REVIEW LESSON ITEMS: Traffic Patterns; Take offs and Landings; Go-arounds; Simulated engine failures to a landing; Forward slip to a landing; landing without flaps; communication in the traffic pattern.

NEW LESSON ITEMS: Pre-solo knowledge exam; Logbook endorsements;

COMPLETION STANDARDS: The lesson will have been successfully completed at the conclusion of **STAGE CHECK ONE**. The student demonstrates: the ability to perform all maneuvers safely, without the assistance of the instructor; the knowledge exam has been successfully completed; all proper endorsements have been entered in the students logbook; the student safely accomplishes three solo take offs and landings. **AT NO TIME WILL THE SUCCESSFUL OUTCOME OF EACH TASK BE IN DOUBT.**



LESSON EIGHT: SOLO TAKE OFFS AND LANDINGS

TIME: .5-1 hour Flight Instruction; 1-4 hours Solo Flight

HOME STUDY: “Sport Pilot Prepware”

REVIEW LESSON ITEMS: High Maneuvers; Low Maneuvers; Take offs and landings, go arounds, radio communications.

COMPLETION STANDARDS: The lesson will have been successfully completed when the student is able to safely complete 1-4 hours of solo flight without instructor intervention. **AT NO TIME WILL THE SUCCESSFUL OUTCOME OF EACH TASK BE IN DOUBT.**

LESSON NINE: INTRODUCTION TO CROSS COUNTRY FLIGHT

TIME: 2-4 hours Ground Instruction; 2 hours Flight Instruction

HOME STUDY: PHAK Chapters 11, 12, 14; **AFH** Chapter 16

NEW LESSON ITEMS: Obtaining a weather briefing; planning a cross country flight; preparing a flight log; airspace review; pilotage; dead reckoning; emergency procedures to include loss of oil, electrical failure, vacuum failure, engine failure at altitude; lost procedures; communication procedures.

COMPLETION STANDARDS: The lesson will have been successfully completed when the student: demonstrates understanding of the procedures to use in obtaining a weather briefing; is able to prepare a flight log with instructor assistance; is able to fly the planned flight making off-course corrections with instructor assistance as necessary; demonstrates understanding of the need to divert, if necessary; demonstrates understanding of the possible emergency situations that might arise during a cross country flight; demonstrates an understanding of appropriate lost procedures; demonstrates an understanding of proper communication techniques.

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LESSON TEN: CROSS COUNTRY FLIGHT

TIME: 1 hour Ground Instruction; 2-4 hours Flight Instruction

HOME STUDY: “Sport Pilot Prepware”, Review: **PHAK** Chap 10 – 16; **AFH** Chap 16

REVIEW LESSON ITEMS: Obtaining a weather briefing; planning a cross country flight; preparing a flight log; airspace review; pilotage; dead reckoning; emergency procedures; lost procedures; communication procedures.

NEW LESSON ITEMS: GPS/Radio Navigation; Diversions; Short/Soft field take offs and landings; FSS/Flight Watch; Flight Following.

COMPLETION STANDARDS: The lesson will have been successfully completed when the student: can successfully plan and fly a cross country flight using pilotage, dead reckoning, and GPS/Radio Navigation; recognizes the need for, and makes timely course corrections; recognizes deteriorating weather, and/or weather forecasts not holding true; demonstrates awareness of the need for timely diversions if necessary; demonstrates awareness of proper emergency procedures, to include a landing after a simulated engine failure; demonstrates proper lost procedures; demonstrates short and soft field take off and landings; demonstrates knowledge of how to contact FSS/Flight Watch; demonstrates how to obtain flight following; uses appropriate radio communication techniques.

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STAGE CHECK: TWO

OBJECTIVE: To insure that the student has met the completion standards of lessons seven through ten.

ORAL CHECK: The student will be orally quizzed on: cross country flight planning; obtaining a weather briefing; weather hazards; preparing a cross country flight log; emergency procedures; diversion procedures; lost procedures; communication procedures; resources for obtaining help while airborne; gps procedures; airspace

FLIGHT CHECK: The student pilot will demonstrate: flying a short (25 - 35 mile) cross country using pilotage and dead reckoning; diversions; emergency procedures; short and soft field takeoffs and landings; simulated engine failure from altitude. * note – oral questioning will continue during the flight check.

COMPLETION STANDARDS: Stage Check Two will be successfully completed when the student demonstrates: the ability to fly a short cross country flight without the assistance of the instructor; the ability to perform emergency procedures without the assistance of the instructor; all required endorsements have been entered on/in the students certificate and logbook.



LESSON ELEVEN: SOLO CROSS COUNTRY FLIGHT

TIME: 2 – 3 Hours Solo Flight

HOME STUDY: “Sport Pilot Prepware”

NEW LESSON ITEMS: Obtaining an un-assisted weather briefing; planning a cross country flight; preparing a flight log; pilotage; dead reckoning; GPS/Radio Navigation; without instructor assistance.

COMPLETION STANDARDS: The lesson will have been successfully completed when the student can properly plan and conduct the solo cross country flight using pilotage, dead reckoning, and GPS/Radio Navigation. During the postflight critique the instructor shall determine how well the flight was conducted through oral questioning.



LESSON TWELVE: PREPARATION FOR THE PRACTICAL TEST

TIME: 2 – 5 hours Ground Instruction; 3 – 5 hours Flight Instruction

HOME STUDY: Read: “Sport Pilot Practical Test Standards”; Review all previously assigned reading.

REVIEW LESSON ITEMS: Preflight planning and inspection; cockpit entry; checklist usage; positive exchange of controls; starting procedures; taxiing; pre-takeoff check; take off; traffic scanning; Slow Flight; Power off and power on stalls and recoveries; spin awareness; steep turns; Turns around a point; S-Turns along a reference line; Rectangular Patterns.

Take offs and landings including crosswind, short field and soft field; Go Arounds; Simulated engine failures to a landing; Forward slip to a landing; Obtaining a weather briefing; planning a cross country flight; preparing a flight log; airspace review; pilotage; dead reckoning; GPS/Radio Navigation; emergency procedures to include loss of oil, electrical failure, vacuum failure, engine failure at altitude; lost procedures; communication procedures; FARs and Airspace.

COMPLETION STANDARDS: The lesson will have been successfully completed when the student demonstrates the required level of proficiency in all tasks of the current FAA Sport Pilot Practical Test Standards; has passed the FAA Sport Pilot Knowledge Exam; and has received the required logbook endorsements and 8710-11 FAA Sport Pilot Certificate Application recommendation.

TOTAL TRAINING TIMES:

Ground Instruction: 10 – 18 hours

Flight Instruction: 15 – 25 hours

Solo Flight: 5 – 10 hours