



JACOBS FLIGHT SERVICES, LLC

Airplane Pinch Hitter
Course Syllabus

The objective of this course is to introduce the non flying member of your family to the airplane, and become proficient in airwork, navigation, communication, and landing.

The scenario we are training for is emergency in nature. This means that the pilot somehow becomes unable to perform the duties, and the other person must “pinch hit” for the pilot. Therefore, the student will have all lessons from the right seat.

There are only 5 lessons, and each will have a ground and flight portion. The flights and lessons may not be an equal number because the lesson is not complete until the standards are met. Each lesson, therefore may take several flights to gain completion proficiency.

Lesson One – In this lesson the student will become familiar with the airplane, the controls, and its flight characteristics.

Ground:

Principles of flight

Basic aerodynamics

Flight control surfaces:

Ailerons, elevator, rudder and flaps. What they do, and how they are controlled

Control mechanisms:

Throttle, mixture, carb heat, yoke, rudder pedals, flap selector and brakes

Instruments

Flight: Airspeed, Attitude Indicator, Altimeter, Turn Coordinator, Heading Indicator and Vertical Speed Indicator.

Engine: Fuel Quantity, Oil Temp, Fuel Pressure, Oil Pressure, Ammeter, Suction

Flight:

Preflight - What it is and why we do it – Student observes*

Starting engine – Student observes

Taxi – student practice – turns, slowing, stopping

Runup – Student observes

Takeoff – Student observes

Four basics of flight – student practice

Straight and Level

Turns

Climbs

Descents

Instructor will demonstrate landing

Lesson complete when student can name all controls and instruments, and fly the four basics with altitude ± 200 feet and headings $\pm 20^\circ$.

* The student observes because in real life they would not do this.

Lesson Two - Navigation

In this lesson the student will become familiar with the VOR and GPS system.

Ground:

Sectional chart reading

Basic symbols

Basic navigation theories

How the system works

Effects of wind on the airplane

Flight:

Instructor will preflight and start engine. Student will taxi to correct runway run up area.

Student will practice four basic flight maneuvers, increasing proficiency.

Instructor will assist student on landing

Lesson Complete when student can fly four basics with altitude ± 100 feet, and headings $\pm 10^\circ$ while intercepting and tracking the selected navigation aid.

Lesson Three – Communication

In this lesson the student will become familiar aircraft communication.

Ground:

Instructor will role play with the student, pilot controller communications. Instructor will act as ATC, and student will be pilot. Practice communicating with ARTCC, FSS and Tower.

How to obtain the correct frequency for the agency with whom you wish to communicate. This will include a review of the Chart.

Flight:

Student will tune and listen to ATIS/AWOS, tune and call CTAF for taxi, and takeoff.

Student will practice lessons 1 and 2, by intercepting a VOR/GPS radial/course and tracking it away from the airport, while maintaining altitude and the appropriate heading to track the assigned course.

Instructor will assist student in takeoff and landing practice in the traffic pattern.

Lesson complete when student can fly the assigned course, look up the appropriate frequency and make the radio call to each agency above.

Lesson Four – Take off and landing practice.

Ground:

The parts of the traffic pattern and what should be done on each leg.

Flight:

Take off and landing practice at 2IS on runway 13 & 31.

Lesson complete when student can align the aircraft with the runway center line with rudder and adjust for drift with ailerons.

Lesson Five – Take off and landing practice.

Ground:

Review the parts of the traffic pattern and what should be done on each leg.

Flight:

Take off and landing practice at 2IS on 13 or 31 with emphasis on when to raise the nose to land.

Lesson complete when student can align the aircraft with the runway center line with rudder and adjust for drift with ailerons and land the airplane.

Completion Certificate Issued