



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 – The airplane

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

Ground:

Principles of flight

basic aerodynamics

The control surfaces

aileron, stabilator, rudder, flaps

what they do, and how they are controlled

The control mechanisms

Throttle, mixture, carb heat, control wheel, rudder peddles, flap handle, brakes

what they do, and how they are controlled

Instruments

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

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

Climb

Descent

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 system.

Ground

Sectional Chart reading

Basic symbols

Basic Navigation theories – Based on the equipment in your airplane if used.

How the system works

Effects of wind on the airplane

Flight

Instructor will preflight, start engine. Student will taxi to correct runway run up area as assigned by ground control. Therefore they must listen to controller for runway assignment. Hint, it's on ATIS too. Instructor will do run up and takeoff.

Student will practice four basics, increasing proficiency.

Instructor will show how the systems in the airplane work.

Student will practice.

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, 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, tune and call ground control for taxi, and tower for takeoff, and reply with the correct response.

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

Student will establish contact with the FSS, ARTCC, and a control tower, each with a request as discussed in the ground session.

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

Lesson complete when student can fly the assigned VOR radial, 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 PAE on 16R or 34L.

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 PAE on 16R or 34L 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.

Graduation ceremony, Certificate and photos.