

# The Private Pilot Certificate

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Congratulations on taking the first step towards learning to fly! This document is designed to answer the most common questions about getting a pilot's license. Don't hesitate to ask your flight instructor if you have any additional questions.

## What is a Private Pilot Certificate?

A private pilot certificate is an FAA-issued license to fly airplanes. A private pilot is allowed to fly a wide variety of airplanes, carry passengers and baggage, use all public civilian airports in the U.S. (including large airports like SFO and LAX), fly for both business and pleasure, and even fly to other countries. However, a private pilot is not permitted to charge for their flying. You can only split the cost of the flight evenly with your passengers.

## What are the steps to get a Private Pilot Certificate?

Flight training is given by FAA-certificated flight instructors (CFIs), and is usually done in aircraft rented from a flying club. The FAA dictates the requirements to get a private pilot certificate in significant detail. While all training is adapted to the individual student, there is no leeway on the minimum requirements and minimum level of skill. The basic requirements are:

- 1) Be able to read, write, speak, and understand English
- 2) Be at least 16 years of age to solo, and at least 17 years of age to receive the private pilot certificate
- 3) Obtain an FAA medical certificate (which usually doubles as a student pilot certificate)
- 4) Take and pass a knowledge test on aeronautical knowledge and federal aviation regulations
- 5) Obtain required dual flight instruction ("dual" means an instructor is in the plane with you)
- 6) Obtain required solo flight time ("solo" means you're in the plane by yourself)
- 7) Take and pass a checkride with an FAA designated examiner

## Do I need to be a U.S. citizen?

In December 2004, the Transportation Security Administration (TSA) created new rules governing flight training given to non-U.S. citizens. All students must either prove that they are U.S. citizens at the beginning of their flight training, or undergo a federal background check, including proof of citizenship, fingerprints, and photographs, before beginning training. The introductory flight lesson is exempted from this requirement.

## How do I know when I'm good enough to get a Private Pilot Certificate?

The FAA publishes the Private Pilot Practical Test Standards (PTS). The PTS includes every maneuver that must be demonstrated on the checkride, along with the required tolerance. For example, for a particular maneuver the tolerance may be altitude  $\pm 100$  feet and heading  $\pm 10^\circ$ . If you can accomplish *all* of the maneuvers within the PTS standards, you will receive your pilot certificate. If you fail to accomplish *any one* of the maneuvers, you will need to take another checkride. Note, however, that the PTS gives *minimum* standards. Your flight instructor will, and should, teach you to a higher standard than the PTS minimum to ensure that you are a safe, competent pilot.

## What is involved in getting a Medical Certificate?

Medical certification involves making an appointment with an FAA-designated Aviation Medical Examiner (AME) and passing a basic physical examination. To become a private pilot you need a third-class medical certificate. If you receive the certificate when you are less than 40 years of age, it is good for 36 months. If you are 40 or more years of age, it is good for 24 months. You must pass a new physical examination before your previous certificate expires to continue flying.

A medical certificate is not required to receive dual flight instruction. However, you will need the certificate before you can solo or receive your private pilot certificate.

For most people, obtaining the medical certificate is a simple requirement to satisfy. However, if you have any sort of medical condition for which you are receiving treatment, or have had serious health issues in the past, medical certification may be more difficult. Examples of conditions include: hypertension, asthma, heart attack or heart disease, diabetes, sleep apnea, cancer, clinical depression, kidney stones, glaucoma, mono-vision, or taking any prescription drug. In most cases medical certification is still possible, and may not even be delayed. However, it is very important that you research the medical requirements *before* you visit the AME for your exam. Your flight instructor will have more details.

Because a delay (or worse yet, denial) of your medical certificate can seriously delay your training, it is recommended that you get your medical certificate *as early in your training as possible* to eliminate the possibility of future problems.

### **What is involved in taking the knowledge test?**

The knowledge test consists of 60 multiple-choice questions taken from a pool of over 700. The test is administered at many airports, and costs around \$80-90 to take. You are given 2½ hours to take the test, and it is closed-book. You must receive at least 70% to pass. Once you take the test, the results are good for 24 months.

The subjects covered on the test include:

- Aerodynamics
- Airplane performance
- Airplane instruments, engines, and systems
- Airports and air traffic control
- Radio communication
- Navigation charts
- Navigation techniques
- Weather
- Use of FAA publications, including the Federal Aviation Regulations (FARs)
- Flight computations, including weight and balance
- Human physiology related to flight
- Accident reporting requirements

Studying for the knowledge test is a lot of work. The good news is there are a large number of resources available to help you study. There are countless books, study guides, computer software programs, multimedia/DVD/VHS training courses, and in-person ground schools available. In addition, the FAA publishes most of the questions in the pool so you have a chance to study the exact questions you will be seeing. It is strongly recommended that you get as close to 100% as possible on the test. It will make your private pilot checkride go much smoother if the examiner has confidence that you have the knowledge portion down pat.

### **What is involved in the flight training?**

The flight training consists of three main phases:

- 1) Training for solo flight, and actual solo flights
- 2) Training for cross-country flights, and actual cross-country flights (both dual and solo)
- 3) Final training and polish for the FAA checkride

## Training for Solo Flight

Soloing an airplane is a major goal and a wonderful accomplishment. Many people remember the day they soloed better than the day they received their actual private pilot certificate. However, in order to be able to safely fly solo you will need to have much of the same skill and knowledge you will eventually need for your pilot certificate. Thus, while soloing is the initial goal, it is not something that should be rushed into.

Before you can solo, you will need to receive dual training and show proficiency in the following areas:

- Flight preparation, including aircraft inspection and knowledge of aircraft systems
- Taxiing (moving the airplane on the ground)
- Straight and level flight, climbs, and descents
- Turns, climbing turns, and descending turns
- Flight at various airspeeds
- Ground reference maneuvers
- Airport operations, both air and ground
- Takeoffs and landings in various wind conditions
- Aborted landings
- Collision avoidance
- Hazardous weather avoidance
- Stalls
- Emergency procedures and equipment malfunctions, including simulated engine-out landings

You will also be required to take a pre-solo written exam that includes sections on relevant Federal Aviation Regulations, airport operations at your home airport, and aircraft operation and performance for the airplane you will be using. Finally, you will also be required to fly with another instructor to receive an independent evaluation of your skills and knowledge. While this is not an FAA requirement, it is required by most flying clubs, and is a good idea in any event.

Once you meet the requirements and proficiency level, you will be allowed to do several solo takeoffs and landings under the supervision of your instructor. Congratulations, you've now soloed! After a few sessions like this, you will be allowed to fly solo whenever you wish, subject to various restrictions such as wind or weather.

## Cross-Country Training

Cross-country flight is defined as landing at any airport more than 50nm away from your home airport. You will need to receive a *minimum* of three hours of dual cross-country training, usually involving several trips to airports away from your home area. This training includes:

- Use of navigation charts
- Use of navigation techniques such as pilotage and dead reckoning
- Use of radio-based navigation
- Use of aircraft performance charts
- Working with Flight Service Stations to receive and interpret weather briefings and file flight plans
- Working with Air Traffic Control in the air
- Additional types of takeoffs and landings
- Additional emergency procedures
- Basic instrument flying (flying without reference to the outside world solely by reference to instruments)
- Night flying

Once you have mastered the cross-country skills, you will need to do several solo cross-country flights totaling a *minimum* of five hours.

## Final Checkride Preparation

Once you have completed your cross-country flights, you are almost ready for the FAA checkride! The final phase of training involves polishing your skills and making sure you can perform every maneuver within the PTS standards. You will also be polishing your aeronautical knowledge, and taking the knowledge exam if you haven't already done so. Finally, you will probably fly with another instructor on a mock checkride to gauge your readiness for the real thing.

### What should I expect on my FAA checkride?

Once you are ready for your checkride, you will schedule an appointment with one of the local FAA-designated pilot examiners, and your instructor will sign your logbook testifying to your readiness. Everyone is nervous on the day of their checkride, but if properly trained you should be able to pass without trouble.

A day or two before the checkride you will contact the examiner and receive a cross-country planning assignment to complete ahead of time and discuss during the checkride. The checkride itself will follow a predictable path:

- 1) On the morning of the checkride, get a complete weather briefing and update your cross-country flight plan
- 2) Show up at the airport before your examiner to preflight the airplane you will use
- 3) Meet the examiner and hopefully realize that he is a normal person, too ☺
- 4) Pay the examiner his fee
- 5) Together review your logbook, medical certificate, and application form to verify that you're allowed to take the test
- 6) Together review the maintenance logbooks for the airplane to verify that it is airworthy and appropriate for the test
- 7) The examiner will then test you orally on a range of knowledge areas that were covered on the knowledge test or during your flight training, including a discussion of your cross-country flight plan
- 8) Go out to the airplane and prepare to fly
- 9) Take off as if you were going to fly the cross-country flight
- 10) At some point you will receive instructions to divert to a different airport
- 11) Various maneuvers
  - a) Slow flight and stalls
  - b) Various types of takeoffs and landings
  - c) Ground reference maneuvers
  - d) Emergency procedures
  - e) Flight by reference to instruments
- 12) Return to your home airport

The complete test should take around 4 hours, with about 1.5 hours in the airplane.

If you pass your checkride, the examiner will immediately hand you a temporary private pilot certificate. You are now a private pilot!

## Summary of Flight Requirements

Here is a summary of the *minimum* number of hours required by the FAA for each phase of training:

- 40 hours total flight time
  - 2.5 hours may be in an approved simulator
  - 20 hours **dual** flight training
    - 3 hours cross-country training
    - 3 hours night flight training
      - One cross-country of over 100 nm
      - 10 takeoffs and 10 landings to a full stop – each requiring a flight in the traffic pattern
    - 3 hours instrument reference training
    - 3 hours flight training in preparation for the practical test within 60 days before the test
  - 10 hours **solo** flight
    - 5 hours cross-country
    - One cross-country of at least 150 nm with full-stop landings at a minimum of 3 points and one segment consisting of a straight-line distance of at least 50 nm
    - Three takeoffs and three landings to a full stop – each requiring a flight in the traffic pattern – at an airport with an operating control tower

## How long will it actually take to get my Private Pilot Certificate?

Not surprisingly, every student is different. While the FAA says that 40 is the minimum number of hours, the national average is actually around 72. In the Bay Area this number may go up further due to the complexity of the airspace and the distance required to fly to practice areas. Some few individuals are able to get their certificate in 50 hours, while others have been known to take 300 or more. That said, there are ways to decrease the number of hours, and thus the cost. Talk to your flight instructor for ideas.

## How much will it cost to get my Private Pilot Certificate?

During your training you will need to pay for airplane rental, instruction (both flight and ground), membership in a flying club, your knowledge test, books and other training aids, and finally your FAA checkride. Here is a rough estimate based on 100 flight hours, of which 85 are dual instruction and 15 are solo. In addition, 45 hours of ground instruction are included for ground education and pre-flight and post-flight briefings.

<b>Item</b>	<b>Amount</b>	<b>Rate</b>	<b>Total</b>
Cessna 152	100 hours	\$89	\$8,900
Instructor	130 hours	\$70	\$9,100
Flying club membership	6 months	\$40	\$240
Headset and other supplies			\$700
Knowledge test			\$80
FAA checkride			\$500
<b>Total</b>			<b>\$19,520</b>

### **How can I decrease the amount of time and cost required?**

While every student is different, there are some tried-and-true ways to reduce the amount of time and cost required to get your private pilot certificate. Each one of these can make a significant difference.

- 1) **Get your medical certificate early**, even before you begin training. That way you won't be surprised, and waste time and money, if your certification is delayed for some reason.
- 2) **Study, study, study**. A lack of knowledge can easily impede your progress, or increase your cost, as the instructor needs to teach knowledge on the ground that you could have learned from a book or video. In the extreme form, you can study for and pass your knowledge test before beginning your actual flight training. This does have some disadvantages, though, in that people do not have any experiences in which to "ground" their study, and thus some of it doesn't make much sense.
- 3) **Fly often**. There is a direct correlation between how often you fly and how many hours it will take you to get your pilot certificate. Ideally you should fly three times per week. That will be frequent enough to continue to build reflexes and muscle memory, while giving you off days to study and prepare for the next lesson. Once per week begins to noticeably affect the amount of time required. Once every two-four weeks will most likely allow little or no progress from lesson to lesson, depending on the person.
- 4) **"Dry fly" the airplane**. There are many procedures and checklists that you can practice on the ground, without an instructor, and without paying for the airplane. You can simply sit in the airplane and practice going through the motions. You can also do this at home sitting in a chair. You can practice radio communication in the shower or on your drive to work.
- 5) **Get to know your airplane**. Read the Pilot's Operating Handbook for the airplane you fly early in the process. Memorize all of the important details, emergency procedures, and systems.
- 6) **Play with a flight simulator**. Items like radio navigation can be partially learned at home on a decent flight simulator.
- 7) **Fly in the cheapest airplane you can find**. If you can fit in a Cessna 152, it will be significantly cheaper per hour than a Cessna 172 or Piper Warrior. However, if you are too tall or weigh too much for a 152, you will have no choice but to pay the higher cost. A Cessna 152 becomes snug over about 5'7" and 160 pounds. However, if you can afford it, a Cessna 172 or Piper Warrior will be more comfortable, faster, and better equipped.
- 8) **Plan your solo flights carefully**. Make sure you have a plan for every solo flight. What maneuvers are you planning to practice, and where are you going to go? Are you certain you know how to practice the maneuver correctly so that you aren't wasting time or, worse yet, learning bad habits?