



Private Pilot License | Flight Training Fundamentals

The Museum of Flight appreciates a student's passion for and desire to pursue a career in aviation, but also recognizes the complexity in navigating these career pathways. For many students, an early step in an aviation career pathway is flight training is the pursuit of a private pilot license. Understanding the fundamentals of private pilot flight training will help students and their families engage in the thoughtful planning necessary for a successful experience.

The following information has been compiled as an *introduction* to private pilot flight training. Specifically, the information was compiled for Museum scholarship applicants and their parents/caregivers to gauge a student's readiness to participate in flight training, including minimum requirements to participate in private pilot flight training, the stages of flight training, and the expenses associated with flight training. Please do not limit yourself to the information in this document but use it as a starting point for educating yourself to the fundamentals of private pilot flight training.

Private Pilot Certification

Achieving private pilot certification is the entry-level license for pilots. With a private pilot certificate, a pilot can fly an aircraft in good weather. Following the award of a private pilot certificate, a pilot can then pursue an instrument rating for flight in low visibility and other sub-optimal flight conditions; commercial rating for ability to receive payment for flight services; multi-engine rating for aircraft with more than one engine; and airline transport pilot rating for work with a commercial airline.

Flight Training Minimum Requirements

Requirements to participate in a private pilot flight training, a student must "read, speak, write and understand the English language," pass a Federal Aviation Administration (FAA) medical exam, and hold a Student Pilot Certificate.

FAA Medical Exam

There are three classes of FAA Medical Certificates – first class, second class and third class; private pilot operations require a third-class FAA Medical Certificate, however if a student plans to continue in pilot training, it may be beneficial to obtain a first-class FAA Medical Certificate. Both the first- and third-class FAA Medical Certificates are valid for a five (5) year (60-month) calendar period. An FAA medical exam must be completed by an Aviation Medical Examiner and will not be covered by personal medical insurance.

As it can take time to acquire an FAA Medical Certificate, the Museum of Flight requires that all students applying for flight training scholarships begin the process of obtaining a medical exam at the time of scholarship application. There are some health issues which disqualify a person from obtaining an FAA Medical Certificate. For this reason, The Museum of Flight recommends students first call the Aircraft Owners and Pilots Association (AOPA) for a consultation to discuss the process of obtaining a FAA Medical Certificate and for guidance related to any health-related concerns.

The AOPA requires you to be a member for a consultation, but they offer high school students' free memberships. You can learn more and sign up here: [Student Membership - AOPA](#)

Student Pilot Certificate

A United States citizen is required to obtain a Student Pilot Certificate in order to participate in the solo stage of flight training. To acquire this certificate, a US citizen can complete online paperwork; a Certified Flight Instructor (CFI) can verify the student's information; and then the Transportation Security Administration (TSA) approves the certificate which is sent via mail.

Non-United States citizens must receive TSA clearance prior to starting flight training. The TSA clearance is associated with a flight school and expires after 12 months. The Museum of Flight does not provide scholarships for non-US citizens due to the time required to obtain TSA clearance.

Minimum requirements to complete a private pilot flight training program (obtain certification) the student must complete a Private Pilot Ground School (PPGS) program and pass the FAA Private Pilot Written Exam; participate in flight training to include 40 hours of flight time (Part 61) or 35 hours (Part 141); and ultimately pass the FAA Private Pilot Practical Exam ("check-ride") (note, a student must be 17 years of age to participate in the FAA Private Pilot Practical Exam).

Private Pilot Education

Flight training consists of ground training, simulator training and flight training. These trainings are done with a Certified Flight Instructor (CFI). The CFI must ensure that the student understands all aspects of ground and flight training and can perform the maneuvers required for the check-ride.

Part 61 vs Part 141

The Code of Federal Regulations (CFR's) are mandates for controlling all aspects of aviation in the United States. Part 61 and Part 141 are sections of the CFR's which outline the requirements for an individual to obtain a private pilot's certification or rating. In brief, Part 61 flight training follows a student defined schedule, while Part 141 follows a schedule prescribed by a flight school's or college's flight syllabus.

Ground School

In preparation for the FAA Private Pilot Written Exam, a student must attend Private Pilot Ground School (PPGS). Part 141 training must be completed at a flight school; Part 61 may be completed at a flight school, through an online course, or at the Museum of Flight. The duration of a flight school varies – The Museum of Flight summer program runs for three weeks; regional flight school programs, which run three nights a week typically complete in seven weeks; and college programs run for a semester.

Flight Training

Flight training is the practical portion of private pilot education. While a Part 61 training requires 40 hours of flight time and a Part 141 requires 35, the FAA reports that flight training average is 60 to 75 hours of flight time. Students new to flight training who have a flexible schedule and can fly three to four times a week, can typically accomplish flight training in four to six months.

The following are the general stages of flight training.

- **Stage 1** training is comprised of:
 - Pre-solo training, with a CFI
 - Stage 1 Check, with a Check Instructor
 - Solo Flight
- **Stage 2** training is comprised of:
 - Local Solo Flights
 - Navigation training, with CFI
 - Night flights
 - Cross-country flights
 - Stage 2 Check, with Check Instructor
 - Solo cross-country flight
- **Stage 3** training is comprised of:
 - Solo cross-country(ies)
 - Check ride preparation

- Stage 3 End-of-Course Check, with Check Instructor
- Check ride, with Designated Pilot Examiner

Expected Delays

Even the best laid flight training plans will incur delays. Common delays include the following.

- **Weather** will undoubtedly delay flight training. The best months to fly in the Puget Sound region are April-September.
- **Maintenance** is required for all aircraft. For each aircraft, scheduled maintenance is required every 100 flight hours and once every year. Unscheduled maintenance is also a reality. If an aircraft scheduled for flight training requires maintenance, the student will need to reschedule if an alternative aircraft is unavailable.
- **Student ability** to learn materials and master flight maneuvers may cause delays. Students learn at different rates, and flight training requires acquisition of new knowledge and skill which will take some students longer than others to perform to the required standard.
- **Budget** can be an issue, particularly if delays begin to compound as re-training may be required.

Expenses

Student pilot certificate

There is no cost for United States citizens to obtain a student pilot certificate; \$130 for non-United States citizens.

Ground School

The cost of PPGS varies. A flight school typically charges about \$500; an online program is generally less. Museum of Flight PPGS is free through the Aeronautical Science Pathway program or summer school.

Flight Training

Flight training costs include aircraft rental and fuel, and CFI instructor fees; additional costs may include simulator fees and rental insurance.

The minimum costs (assuming 40 hours of flight time) are about \$11,000, however depending on the number of flight hours for a student to perform to standard it will likely cost more. The national average of flight hours raises the cost to upwards of \$18,000.

Aircraft Rental Insurance

Aircraft rental insurance, required by some flight schools, is approximately \$100 to \$200 per year

Equipment

Additional equipment will be required for training. This equipment includes books (~\$100), headset, (~\$300-800), kneeboard (~\$40), E6B flight computer (~\$20), Navigation Plotter (~\$15), charts (~\$50). Online apps and subscriptions can substitute for some of this equipment. These apps are usually free but include a monthly subscription cost of around \$100/month. Students should consult their flight school to determine what is required.

Medical Certificate

The FAA medical exam costs approximately \$80-\$200 and will not be covered by personal medical insurance.

Exams

The Private Pilot Written Exam must be taken at a designated testing site. The current cost is \$175.

The check-ride requires aircraft rental and fuel as well as examiner fee. The current Designated Pilot Examiner fee is approximately \$800 - \$1000, and examiners typically prefer cash, although there is a recent push by the FAA for paying by check or online (Zelle, Venmo, etc.).

Reducing Cost

Preparation for each lesson will reduce costs. *Flying consistently* 3-4 times each week will shorten the time it takes to complete the training and will reduce cost; lapses in training or taking "time-off" may require re-training. Use weather delays to fly in the sim or do ground work. Study, study, study!

Choosing a Flight School

These are some of the factors to consider when selecting a flight school.

Location

A flight school with an easy commute is valuable. Students who live far from their flight school tend to cancel more often.

Safety/Maintenance

Ask the school about safety and maintenance practices. Safety is a culture and should be a priority for the school.

Insurance

Flight schools have insurance, but some require that renter's insurance is carried by their students. It is important to know the student's responsibility should something be damaged.

Cost

Some flight schools cost more than others, however most of the time costs even out over time and most pilots pay approximately the same amount for flight training. Paying a little more for a school that is easy to get to, is safe and fits a student's personality better, is generally worth the extra cost.