

Community College of Baltimore County

AVIATION MANAGEMENT DEPARTMENT

FLIGHT TRAINING GUIDE



- Flight Training: process and costs
- Pilot Ground Schools
- FAA Knowledge Testing
- Flight Simulator Training

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CCBC

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See the [Aviation Program Information Packet](#) for a semester by semester course progression schedule for degree seeking students.

Students interested in flight training at CCBC must review the policies and procedures found in the [CCBC Student Flight Training Handbook](#).

For more information on pilot career progression, please visit the [Aviation Careers](#) webpage on the **CCBC Aviation Technology** website: www.cbcmd.edu/aviation

EARNING YOUR COMMERCIAL PILOT CERTIFICATE: THE PROCESS

In order to fly professionally as a commercial pilot, you must progress through several pilot licenses. Each license (or **certificate** as the termed by the FAA) builds on the skills and knowledge gained in the previous license. These licenses are described below and the costs are for **airplane and helicopter** training.

The time and costs depend on how quickly you learn the required skills. Flight training time and costs are determined by individual ability, but are also influenced by weather and maintenance factors which may interrupt flight training. Generally, students should fly frequently and consistently in order to complete their pilot training in minimum time. Learning to fly requires repetition. Long breaks in flight training result in the student losing flying proficiency and skill.

Each license on the road to becoming a commercial pilot requires two parts: ground school and flight training. Ground school provides the academic knowledge necessary to be a safe pilot and pass the FAA Knowledge Exam. The flight training portion will teach you to operate the aircraft in a proficient and safe manner so that you will pass the FAA Flight Evaluation.

Private Pilot - The first license you will earn is the private pilot certificate. This license allows you to fly in good weather only under Visual Flight Rules (VFR). You may carry passengers, but cannot fly for hire (be paid as a pilot to fly passengers or cargo). The minimum requirement for this license is 40 hours of instruction, but most people take closer to 50 hours.

Instrument Pilot Rating - The next license you will earn is the instrument rating. This allows you to fly in limited visibility conditions under Instrument Flight Rules (IFR). You may carry passengers, but cannot fly for hire. The minimum requirements for this license is 40 hours of instruction, and thanks to simulator technology, most people are able to complete this rating in this amount of time.

Commercial Pilot Certificate - The commercial pilot certificate will allow you to charge for your services as a pilot. This license builds on the skills learned during your private and instrument training, but hones your piloting ability to a higher proficiency level. The minimum requirements for this license is 250 hours of instruction (your private and instrument flight training time counts toward this); however, through simulator training under part 141, the total time may be reduced to 190 hours.

Commercial Pilot Certificate (Multi-Engine Airplane) - After completing your airplane commercial pilot single engine training, you will want to "add-on" multi-engine privileges to your commercial license.

Certificated Flight Instructor (CFI) - This license authorizes you to provide flight instruction and train new students in learning to fly. This certification comes after earning your commercial pilot's license. The basic CFI allows you to instruct in single-engine aircraft. You may also want to add instrument (**CFII**) and multi-engine (**MEI**) privileges to your CFI certificate in order to train instrument and in multi-engine students.

Please see page 7 for some excellent websites that offer more information on flight training.

PILOT HIRING AND CAREER PROGRESSION

When considering pilot applicants, employers use logged flying hours as a yardstick for pilot experience in addition to a college degree. Organizations that hire pilots will have minimum flight hour requirements for employment.

When you finally earn your commercial pilot certificate, you will probably have less than 300 hours of flight time in your logbook. This is not enough to meet the minimum hiring standards for most airline or commercial operators. Most entry level flying jobs (regional airline, charter, and corporate operators require 1200-1500 hours. So you will be lacking a thousand hours in order to be employable. This is referred to as the experience "gap." In order to bridge this gap, you could go out and buy the additional time, but this would be prohibitively expensive. Most CCBC students turn to flight instructing as an efficient and cost-effective means to bridge the gap and build their flight time.

By earning a Certificated Flight Instructor (CFI) license, you may now teach others to fly and at the same time log the time that you fly with your students towards meeting the hiring requirements for an entry level flying job. Working as a CFI can be extremely rewarding as you introduce others to flying. You will also learn a great deal from teaching others to fly. The downside of flight instructing is the compensation. Most CFIs make \$ 30 or more per hour, but they are only paid for the time that they are actively instructing students, so the net income of a full-time CFI is approx. \$20,000 annually, however some flight schools offer much higher compensation and even benefits packages. This low pay is called "paying your dues" in the pilot world. Not all flight instructors are full-time; some are part-time and flight instruct in order to build their hours while working another job. Other CFIs work for extra income or just for the love of flying. CFI jobs are plentiful in the Baltimore Area.

While you are instructing, you will also need to accumulate multi-engine flight time. Multi-engine flight time demonstrates your ability to fly sophisticated aircraft. Entry level flying jobs require 100-500 hours of multi-engine flight time. There are different ways to get multi-engine time in your logbook. You may add-on multi-engine privileges to your CFI certificate which enables you to instruct in multi-engine aircraft or you may fly for a number of flight operators or private owners that utilize multi-engine aircraft.

When you have met the flight-hour requirements, you may apply for flying jobs individually or attend an Aviation Job Fair where representatives from numerous pilot hiring organizations are there to eagerly accept your resume. Some will even interview you on the spot and offer you a position!

Starting salaries for entry-level Regional Airline jobs are now \$ 45,000 to \$ 55,000 annually but can increase to \$85,000 after you upgrade to captain and serve a few years. Many Regional Airlines have "feeder" programs with their partner Major Airlines, where pilots can upgrade to a Major Airline in 4-5 years.

As you gain more experience and logbook hours, you will be able to qualify for employment with the major airlines or more lucrative flying jobs elsewhere that pay in excess of \$ 200,000 per year.

THE MILITARY OPTION

Another way to become a commercial pilot is by going the military pilot route. All branches of the service train pilots and this training is considered to be the best in the world. With some exceptions, the Air Force and Navy fly mainly airplanes while the Army, Coast Guard and Marines fly helicopters. The process is very selective and to qualify for US Navy or Air Force pilot training a four-year degree is required. There is also a service commitment of 8-10 years. If you join a service on active duty status, you will have to complete your commitment before you may enter commercial aviation as a pilot; however, if you join a Reserve or Air/National Guard unit, you may start your commercial pilot career while serving in inactive or reserve status.

One of the best kept secrets is joining the Reserves or Air/Army National Guard. Many states have Reserve or National Guard components that offer aviation opportunities. Many CCBC students join an Army/Air National Guard flying unit and take advantage of tuition assistance programs and Veteran's Benefits which almost completely cover the costs of flight training and earning their aviation degree. Upon graduation from college, they have excellent prospects for pilot selection with their unit.

R-ATP RESTRICTED AIRLINE TRANSPORT PILOT

In order to fly for most Regional and Major Airlines, pilots must have an **Airline Transport Pilot (ATP)** license which requires a pilot to have logged a minimum of 1500 hours and be at least 23 years old. A caveat to this is the **Restricted Airline Transport (R-ATP)** license, where graduates of an approved 2-year aviation college may qualify for a R-ATP license at age 21 and 1250 hours of flight time. This R-ATP license meets the requirements for immediate airline employment. CCBC's Professional Pilot AAS degree programs are approved for the Restricted ATP license, meaning that **CCBC Professional Pilot graduates will be eligible to earn their R-ATP license at age 21 instead of age 23 and 1250 hours total flight time instead of 1500!**

FLIGHT TRAINING COSTS

CCBC offers airplane and helicopter flight training courses that are contracted through local flight schools. By contracting through local flight schools, we can offer flexible, lower-cost flight training options to our students. These flight training courses have lab fee that pay the flight school for the training. These courses enable students to finance their flight training via student loans, grants, VA Benefits, and employer tuition assistance.

FLIGHT TRAINING COSTS

CCBC offers the following flight training courses in the **Professional Pilot Airplane** AAS degree:

Each course has an associated lab fee to pay for the additional costs of flight training.

		Lab fees:	effective Fall 2018
AVMT 142	Private Pilot Certification, Airplane	3	\$13,500
AVMT 242	Instrument Pilot Rating, Airplane	3	\$12,200
AVMT 247	Commercial Pilot Certification, Airplane Single & Multi Engine	3	\$24,800
AVMT 261	Certificated Flight Instructor Airplane (CFI)	3	\$6,000
AVMT 263	Certificated Flight Instructor Instrument Airplane (CFII)	3	\$6,000
AVMT 265	Certificated Flight Instructor Multi-Engine Airplane (MEI)	3	\$9,000
		Total:	\$71,500

CCBC offers the following flight training courses in the **Professional Pilot Helicopter** AAS degree:

Each course has an associated lab fee to pay for the additional costs of flight training.

		Lab fees:	effective Fall 2018
AVMT 144	Private Pilot Certification, Helicopter	3	\$22,500
AVMT 244	Instrument Pilot Rating, Helicopter	3	\$22,500
AVMT 248	Commercial Pilot Certification, Helicopter	3	\$18,200
AVMT 262	Certificated Flight Instructor Helicopter (CFI)	3	\$8,000
AVMT 264	Certificated Flight Instructor Instrument Helicopter (CFII)	3	\$8,000
		Total:	\$79,200

*AVMT 143 & AVMT 243 are introduction to flight operations courses designed for students enrolled in the Air Traffic Control and Flight Management programs.

Training must be accomplished at a flight school approved by the college. Please see a list of approved flight schools on the next page or contact the Aviation Department for details. Once a student registers for a flight training course, the lab fee is placed in a CCBC flight account for the student. The Flight Training Center will bill the college in increments and will be paid by the college up to the amount of the lab fee.

NOTES:

1. The lab fee may not be enough to complete the certificate or rating sought; sometimes the student may have to provide additional funding.
2. These courses do not guarantee a certificate or rating.
3. Lab fees are to be used for flight instruction only and may not be used to purchase pilot supplies such as headsets, GPS navigation devices, iPads, tablets or electronic flight bags (EFB).
4. For more information, please review the ***CCBC Student Flight Training Handbook***.

FLIGHT TRAINING COSTS

What does it realistically cost?

THE BOTTOM LINE

The estimated cost of the Flight Training Degree including flight training fees is itemized below:

	Airplane	Helicopter
Academic Credits for AAS Degree (Baltimore County rates*)	\$ 7,800	\$ 7,800
Flight Training Lab fees (see page 4)	\$71,500	\$79,200
CCBC Professional Pilot Degree Total Costs:	\$ 79,300	\$ 87,000
Additional costs not covered in lab fees:		
FAA Knowledge Exams	\$ 750	\$ 750
Pilot Examiner Fees	\$ 2,500	\$ 2,500
TOTAL COSTS	\$ 82,550	\$ 90,250

* Different tuition rates apply for Maryland residents not living in Baltimore County and students living out of state:

<http://www.cbcmd.edu/costs-and-paying-for-college/tuition-and-fees>

MEDICAL CERTIFICATION

You will be required to have an FAA Class II Medical Certificate in order to start flight training at CCBC. This can only be obtained from an FAA certified Aviation Medical Examiner (AME). The cost ranges from \$ 85 - \$ 120.

The medical evaluation is really a routine physical that checks visual acuity and color perception, hearing, blood pressure and heart functions, and physical mobility associated with flying.

To find an AME in your area, please visit the FAA website link below: (Search on **Location -> State** for best results)

www.faa.gov/licenses_certificates/medical_certification/get/

FLIGHT TRAINING

APPROVED FLIGHT TRAINING CENTERS

The CCBC Aviation Program serves Maryland and the Mid-Atlantic region. The following flight schools have been approved for CCBC students to complete their flight training. Flight Schools are listed in alphabetical order.

<u>Name (linked to web sites)</u>	<u>Airplane</u>	<u>Helicopter</u>	<u>VA Benefits Approved</u>	<u>Airport & Location</u>
<u>American Helicopters/Aviation</u> 703-368-9599	X	X	X	Manassas Regional Airport Manassas, VA
<u>Aviation Adventures</u> 703-530-7730	X		X	Manassas Regional Airport Manassas, VA
<u>Bravo Flight Training</u> 240-651-1941	X			Frederick Municipal Airport Frederick, MD
<u>Brett Aviation</u> 410-391-0210	X		X	Martin State Airport Essex, MD
<u>Dream Flight School</u> 443-244-9218	X			Carroll County Airport Westminster, MD
<u>Frederick Flight Center</u> 800-355-0620	X	X	X	Frederick Municipal Airport Frederick, MD
<u>Freeway Aviation</u> 301-390-6424	X			Freeway Airport Bowie, MD
<u>GT Aviation</u> 301-248-1711	X		X	Potomac Airfield Ft Washington, MD
<u>Harford Air Services</u> 410-836-2828	X		X	Harford County Airport Churchville, MD
<u>Navy Annapolis Flight Center</u> 410-956-8751	X		X	Lee Airport Annapolis, MD
<u>Middle River Aviation</u> 410-574-3897	X	X	X	Martin State Airport Essex, MD
<u>Trident Aviation</u> 410-604-2680	X		X	Easton Airport Easton, MD
<u>Washington Int'l Flight Academy</u> 240-246-7529	X		X	Gaithersburg Airport Gaithersburg, MD



PLEASE CHECK OUT THESE WEB SITES!

Learning to fly is different than learning most skills. We recognize that getting started in flight training can be confusing and finding out exactly how to proceed can be frustrating. For this reason, we have compiled a list of articles and websites for you to visit in order to learn more about how flight training works. Please note that the costs mentioned in these articles may not reflect current prices.

Aircraft Owners & Pilots Association (AOPA)

[Learning to Fly](#)

www.aopa.org

Includes info on getting started and choosing a flight school

Federal Aviation Administration (FAA)

www.faa.gov

[Becoming a Pilot](#)

Interactive website for learning to fly

CREDIT FOR PILOT CERTIFICATES & RATINGS

CCBC may award credit for airplane or helicopter pilot certificates and ratings earned at other flight training centers as follows:

Private Pilot – 6 credits;

- a. AVMT 141 Private Pilot Ground School (3 credits)
- b. AVMT 142 (airplane) or AVMT 144 (helicopter) Private Pilot Certification (3 credits)

Instrument Rating – 7 credits;

- a. AVMT 241 Instrument Pilot Ground School (4 credits) ††
- b. AVMT 242 (airplane) or AVMT 244 (helicopter) Instrument Pilot Rating (3 credits)

Commercial Pilot – 7 credits;

- a. AVMT 246 Commercial Pilot Ground School (4 credits) ††
- b. AVMT 247 (airplane) or AVMT 248 (helicopter) Commercial Pilot Certification (3 credits)

Certificated Flight Instructor Airplane (CFI) - 3 credits - AVMT 261

Certificated Flight Instructor Helicopter (CFI) - 3 credits - AVMT 262

Certificated Flight Instructor Instrument Airplane (CFII) - 3 credits - AVMT 263

Certificated Flight Instructor Instrument Helicopter (CFII) - 3 credits - AVMT 264

Certificated Flight Instructor Airplane Multi-Engine (MEI) - 3 credits - AVMT 265

†† Must be completed at an accredited aviation college and subject to the approval of the Aviation Program Director

CCBC PILOT GROUND SCHOOLS

Since 1974, thousands of pilots in the Baltimore area have attended ground school courses at CCBC. Many have returned for refresher training. Ground school courses at CCBC are FAA approved and fully accredited. You'll earn college credits while completing your ground school training!

CCBC Ground Schools are open to anyone who has an interest in flight training or is taking lessons at another flight school. It is not necessary to be a degree-seeking aviation student in order to attend these courses. These courses can be taken on a credit or non-credit (audit) basis, however, the cost is the same.

The key to earning a pilot certificate or rating is learning how to operate an aircraft safely and pass the FAA Knowledge Exam. CCBC Pilot Ground Schools accomplish both of these objectives.

CCBC offers complete ground school training taught by instructors who have thousands of hours of actual flying and instructional experience. They will share their knowledge with you, providing real examples, not just reciting textbook lessons!

GROUND SCHOOL vs. TEST PREP COURSES

There are several types of ground schools available. Many ground schools are only designed to aid you in passing the FAA Knowledge Exam, and while they usually achieve this objective, there is much more that you need to know to become a safe and proficient pilot.

CCBC will teach you more than just how to pass the FAA Knowledge Exam! To be a competent pilot, you will need a complete understanding of FAA regulations, airspace, communications, weather, and flight operations procedures. Students learn in an environment utilizing multi-media equipment, online assignments and resources, and simulators. They further benefit from training scenarios and class discussions, where students share their experiences and help one another. CCBC Ground Schools integrate the FAA Instructional Training Standards (FITS) program.

PRIVATE PILOT GROUND SCHOOL

The private pilot ground school provides complete ground instruction required for the private pilot certificate. Students completing this course will have satisfactorily completed the FAA Private Pilot Aeronautical Knowledge requirements and will receive an endorsement to take the FAA Private Pilot Knowledge exam.

College course designator, description, and information for the **Private Pilot Ground School** is as follows:

AVMT 141 - Private Pilot Ground School covers aerodynamics, aircraft systems, flight theory, navigation, meteorology, safety, aircraft loading, weight & balance, aircraft performance, physiology, and private pilot maneuvers.

OFFERED:

During the Fall and Spring semesters there are 3-4 class sections:

Meet on Tuesdays & Thursdays daytime & evenings.

CREDITS: 3 credits (or students may audit course), 45 hours of classroom instruction

COST: This is a 3-credit course (textbooks additional \$60.00)

[See Tuition & Fee Schedule](#)

INSTRUMENT PILOT GROUND SCHOOL

The instrument pilot ground school provides students with the aeronautical knowledge required by FAA regulations for the instrument rating. Students completing this course will receive an endorsement to take the FAA Instrument Pilot Knowledge Exam.

College course designator, description, and information for the **Instrument Pilot Ground School** is as follows:

AVMT 241 - Instrument Pilot Ground School includes flight by reference to instruments, the air route structure & air traffic control system, navigation systems, weather radar and thunderstorm avoidance equipment, IFR navigation, safety, regulations, meteorology, communications, flight physiology, and terminal operations.

OFFERED:

During the Fall and Spring semesters there are 2-3 class sections:

Meet on Tuesdays, Wednesdays & Thursdays daytime & evenings.

CREDITS: 4 credits (or students may audit course), 60 hours of classroom instruction

COST: This is a 4-credit course (textbooks additional \$60.00)

[See Tuition & Fee Schedule](#)

COMMERCIAL PILOT GROUND SCHOOL

The commercial pilot ground school provides students with the aeronautical knowledge required by FAA regulations for the commercial pilot certificate. Students completing this course will receive an endorsement to take the FAA commercial pilot written exam.

College course designator, description, and information for the **Commercial Pilot Ground School** is as follows:

AVMT 246 - Commercial Pilot Ground School studies advanced aerodynamics, advanced aircraft systems, operation of high performance aircraft, including multi-engine & turbine aircraft, flight physiology, safety, meteorology, commercial pilot regulations, commercial pilot maneuvers, and crew resource management (CRM).

OFFERED: Monday evenings during the Fall & Spring semesters

CREDITS: 4 credits (or students may audit course), 60 hours of classroom instruction

COST: This is a 4-credit course (textbooks additional \$ 60.00)

[See Tuition & Fee Schedule](#)

FAA TESTING CENTER

CCBC is an FAA-Approved PSI-CATS Testing Center. All FAA Knowledge Exams (pilots, flight instructors, aviation mechanics, and aircraft dispatchers may be administered at our site. CCBC students and students at affiliated flight schools receive a 10% discount for exams. Exams are administered at a cost of \$150.00 for CCBC students and affiliated Flight School students and \$ 165.00 for others.

For more information, visit the [CCBC PSI-CATS Testing Center web page](#)

To schedule an exam, please e-mail: aviation@ccbcmd.edu

FLIGHT SIMULATORS

The CCBC Aviation Department has FAA Approved simulators for use by students and instructors. This simulator may be used for instrument training, multi-engine training, and various types of transition training as 20 different aircraft panels may be displayed including Piper Archer, Arrow, Seneca & Seminole, Cessna 172, 182, Mooney M-20 series, Beechcraft Baron and King Air 200.

For more information, please e-mail: aviation@ccbcmd.edu