

The Community College of Baltimore County

AVIATION STUDIES DEPARTMENT INFORMATION PACKET



- Degree & Certificate Programs
- Course Descriptions
- Financial Aid
- Transfer Programs
- Registration & Application

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CCBC

The Community College of Baltimore County

800 South Rolling Road Baltimore, MD 21228

www.ccbcmd.edu/aviation

443-840-4157

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For more information on Flight Training and Air Traffic Control -CTI programs, please see the following:

[CCBC Flight Training Guide](#)

[CCBC Student Flight Training Handbook](#)

[CCBC AT-CTI Handbook](#)



Aviation Studies, Business Department
School of Business, Social Sciences, Wellness & Education
The Community College of Baltimore County
800 South Rolling Road Baltimore, MD 21228

DEAR PROSPECTIVE AVIATION STUDENT:

Thank you for your interest in the Aviation Program at The Community College of Baltimore County - Catonsville Campus! CCBC Catonsville has been training aviation professionals for over 30 years.

The CCBC Aviation Program offers a variety of courses to meet your needs, whether you are looking to take ground school classes, complete a degree in aviation, or transfer to a four-year aviation college or university.

This program is designed to be flexible to accommodate both non-degree and degree-seeking students. Students wishing to complete an aviation degree may do so one or two courses at a time, or may opt to take classes full-time to earn their degree in minimum time.

This packet contains information about the CCBC Aviation Program, CCBC application & registration, flight training, and careers in aviation. I hope you will find this useful.

We would very much like to meet with you to discuss your goals and identify how the aviation program at CCBC can help you successfully achieve them. To set up an appointment, please call **443-840-4157**.

Be an early bird! Students are strongly encouraged to register for classes as early as possible. Class sizes are limited, and many courses, including aviation classes may not be held every semester!

We look forward to hearing from you!

Sincerely,

A handwritten signature in black ink that reads "Douglas A. Williams".

Douglas A. Williams
Aviation Program Coordinator
The Community College of Baltimore County
dwilliams@ccbcmd.edu

OVERVIEW

The Community College of Baltimore County (CCBC) Catonsville campus offers an **Associate of Applied Science (A.A.S) degree in Aviation Management, with three specialty options:**

- Air Traffic Control - Air Traffic Collegiate Training Initiative (CTI)
- Flight Management
- Flight Training

Aviation studies includes aeronautics, air transportation science, FAA & government regulations, safety, meteorology, and air traffic control procedures. Internships where students gain valuable experience are available at nearby airports including Baltimore-Washington International Airport (BWI), Martin State Airport (MTN) and Reagan Washington National Airport (DCA). Additionally, students will acquire a core knowledge of business operations, computer information systems, economics, management, and technical writing. The program also includes elective courses in social sciences, the arts, and humanities. Students may view the college catalog online by visiting the CCBC website:

<http://www.cbcmd.edu/>

CCBC offers Aviation Certificates in the following disciplines:

- Air Traffic Control
- Flight Management
- Flight Training
- Flight Attendant

CCBC represents **real value**. CCBC courses are typically one-half to one-third the cost of most four-year college and university courses!

ACCREDITATION

CCBC Aviation Degrees & Certificates are accredited by the Middle States Commission on Higher Education and the Association of Collegiate Business Programs & Schools (ACSBP). The CCBC Aviation Program is a member of the University Aviation Association and is seeking accreditation from the Aviation Accreditation Board International (AABI).

TRANSFER TO FOUR YEAR COLLEGES AND UNIVERSITIES

If you are interested in ultimately earning a four-year degree, completing your first two years at CCBC **could save you thousands of dollars** ! Most four-year aviation colleges and universities will accept 60–80 credits earned from CCBC.

CCBC is a member of the University Aviation Association and credits earned at CCBC transfer to most aviation colleges, however, students are encouraged to check in advance with the four-year college to ensure credits will transfer successfully.

CCBC enjoys established transfer agreements (meaning **all** CCBC credits will be accepted) with several local, four year colleges and universities that offer Bachelor of Science (B.S.) degrees in Aviation Management, Professional Pilot, Professional Aeronautics, and more!

TRANSFER TO THE UNIVERSITY OF MARYLAND

CCBC has a direct transfer agreement with the University of Maryland, Eastern Shore (UMES) program located in Princess Anne, Maryland. Under this program, students may earn a Bachelor of Science (B.S.) degree in Professional Pilot Training or Aviation Management. **NOTE:** Students must carefully follow the UMES direct transfer curriculum specified in the CCBC college catalog. For more information please call 410-651-6365.

TRANSFER TO EMBRY-RIDDLE AERONAUTICAL UNIVERSITY

CCBC also has a direct transfer agreement with Embry-Riddle Aeronautical University (ERAU) located at Andrews Air Force Base, Maryland. Under this program, students may earn a Bachelor of Science (B.S.) degree in Professional Aeronautics. This program is extremely flexible and offers accelerated and online courses. For more information call 301-735-6340.

STATEWIDE PROGRAM

Because the CCBC Aviation program is a unique, one of a kind program in the state of Maryland and serves a regional population, all students living in Maryland are charged Baltimore County rates for courses specified in the Aviation Degree Curricula **regardless of what county they reside** .

NOTE: In order to qualify for in-county rates, you must indicate that you are degree seeking on your application, however, this does not obligate you to complete the degree.

Students living outside Baltimore County who are seeking a degree in Aviation Management may elect to attend non-aviation courses at a community college in their area for convenience. Credits are generally transferable from college to college in the state of Maryland.

AIR TRAFFIC CONTROL - COLLEGIATE TRAINING INITIATIVE (CTI)

The Air Traffic Control - CTI degree is specifically designed to prepare students for employment as Air Traffic Control Specialists working in airport control towers, Terminal Radar Approach Control (TRACON) facilities, and Air Route Traffic Control Centers (ARTCC). Most of these positions are with the Federal Government, and individuals will be required to pass an FAA Class II medical evaluation.

This is an FAA Collegiate Training Initiative (CTI) program. Successful graduates will be placed in the direct-hire pool of applicants for employment in the FAA Air Traffic Controller workforce. Space in this program is limited and students must apply for this program by submitting the following:

[CCBC AT-CTI Application](#) [CCBC Application for Admission](#)

Students considering applying for this program should read the [CCBC AT-CTI Handbook](#)

Air Traffic Control - Collegiate Training Initiative (CTI) Curriculum:

Credits:

General Education Requirements:

	3
ENGL 101 College Composition I	3
SPCM 101 Fundamentals of Speech Communication	4
AVMT 201 Aviation Meteorology	3
CINS 120 Diversity in a Technological Society	3

General Education Electives (see online college catalog for approved courses):

Social & Behavioral Sciences	3
Mathematics	3-4

Program Requirements:

	3
AVMT 101 Aviation History & Development	3
AVMT 141 Private Pilot Ground School	2
AVMT 143 VFR Flight Operations	3
AVMT 211 Air Transportation	3
AVMT 216 Aviation Safety	3
AVMT 221 The Air Traffic Control System	3
AVMT 226 Air Traffic Control Operations I	3
AVMT 227 Air Traffic Control Operations II	3
AVMT 228 Air Traffic Control Operations III	3
AVMT 229 Air Traffic Control Operations IV	3
AVMT 230 Air Traffic Facility Internship	4
AVMT 241 Instrument Pilot Ground School	1
AVMT 243 IFR Flight Operations	3
AVMT 251 Airport Management	3
AVMT 256 Airline Management	3
ENGL 102 College Composition II OR MNGT 239 Business Communications	3

REQUIRED FOR A.A.S. Degree: 65-66

FLIGHT MANAGEMENT DEGREE

Aviation management is a rapidly expanding field with excellent employment prospects. These professionals are largely responsible for the development, planning, operation, and marketing functions of the aviation industry.

The Flight Management Degree prepares students for employment in various business-related aviation career fields, including airport or airline management, airline dispatcher, cargo operations, and fixed base operator (FBO) management. Careers are also available with the Federal Aviation Administration (FAA), National Transportation Safety Board (NTSB) Department of Transportation (DOT) and other government agencies.

Flight Management focuses on business administration, accounting, marketing, airport and airline operations. Please see the **Aviation Careers** link for more information on working conditions and employment prospects.

Flight Management Curriculum:

Credits:

General Education Requirements:

ENGL 101	College Composition I	3
SPCM 101	Fundamentals of Speech Communication	3
AVMT 201	Aviation Meteorology	4

General Education Electives (see online college catalog for approved courses):

Arts & Humanities or Social & Behavioral Sciences	3
Social & Behavioral Sciences	3
Information Technology	3
Mathematics	3-4

Program Requirements:

AVMT 101	Aviation History & Development	3
AVMT 141	Private Pilot Ground School	3
AVMT 211	Air Transportation	3
AVMT 216	Aviation Safety	3
AVMT 221	The Air Traffic Control System	3
AVMT 226	Air Traffic Control Operations I	3
AVMT 251	Airport Management	3
AVMT 256	Airline Management	3
ACCT 101	Principles of Accounting I	3
ACCT 102	Principles of Accounting II	3
ENGL 102	College Composition II OR MNGT 239 Business Communications	3
MNGT 101	Introduction to Business	3
MNGT 201	Human Resource Management	3

Program Electives:

AVMT, ACCT, MNGT, CINS, ECON, or PHYS	3
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Required for A.A.S. Degree: 64-65

FLIGHT TRAINING DEGREE

Today's pilots are highly trained professionals who are not only responsible for the safety of their passengers and cargo, but for the operation of some very sophisticated and expensive equipment. The employment outlook for pilots is excellent. Please see the **Aviation Careers** link for more information on working conditions and employment prospects. Pilots must meet FAA medical standards.

Graduates of the pilot training option will have completed all academic training required for the commercial pilot certificate. Pilots with a commercial pilot certificate may find employment with regional and major airlines, corporate flight departments, charter or cargo operators, agricultural flying, flight schools, or with a government agency or military service. Non-flying positions are also available with the Federal Aviation Administration or other federal, state, and local aviation agencies.

Students considering the Flight Training Degree should read the following:
[CCBC Flight Training Guide](#) [CCBC Student Pilot Handbook](#)

Flight Training Curriculum:

Credits:

General Education Requirements:

ENGL 101	College Composition I	3
SPCM 101	Fundamentals of Speech Communication	3
AVMT 201	Aviation Meteorology	4

General Education Electives (see online college catalog for approved courses):

Arts & Humanities or Social & Behavioral Sciences	3
Social & Behavioral Sciences	3
Information Technology	3
Mathematics	3-4

Program Requirements:

AVMT 101	Aviation History & Development	3
AVMT 141	Private Pilot Ground School	3
AVMT 211	Air Transportation	3
AVMT 216	Aviation Safety	3
AVMT 221	The Air Traffic Control System	3
AVMT 226	Air Traffic Control Operations I	3
AVMT 241	Instrument Pilot Ground School	4
AVMT 246	Commercial Pilot Ground School	4
AVMT 251	Airport Management	3
AVMT 256	Airline Management	3
ENGL 102	College Composition II OR MNGT 239 Business Communications	3

Program Electives:

Flight Training Courses (required for employment as a pilot):	
AVMT 142	Private Pilot Certification
AVMT 242	Instrument Pilot Rating
AVMT 247	Commercial Pilot Certification
OR other AVMT, ACCT, MNGT, CINS, ECON, or PHYS	

Required for A.A.S. Degree: 63-64

AVIATION CERTIFICATE PROGRAMS

Aviation Certificates are great for individuals who wish to expand their knowledge and credentials in the field of aviation but do not want a degree. This includes people currently employed in aviation or who already have a degree in another discipline. CCBC degree-seeking students are also eligible to earn these certificates.

AIR TRAFFIC CONTROL CERTIFICATE

	Credits:
AVMT 101 Aviation History & Development	3
AVMT 141 Private Pilot Ground School	3
AVMT 211 Air Transportation	3
AVMT 216 Aviation Safety	3
AVMT 221 The Air Traffic Control System	3
AVMT 226 Air Traffic Control Operations I	3
Required for Certificate:	18

FLIGHT ATTENDANT CERTIFICATE

The Flight Attendant Certificate may be completed in one semester. A degree is not required for employment as a Flight Attendant

AVMT 101 Aviation History & Development	3
AVMT 141 Private Pilot Ground School	3
AVMT 151 Flight Attendant Fundamentals	3
HLTH 140 First Aid & Personal Safety	3
Required for Certificate:	12

FLIGHT MANAGEMENT CERTIFICATE

AVMT 101 Aviation History & Development	3
AVMT 141 Private Pilot Ground School	3
AVMT 211 Air Transportation	3
AVMT 216 Aviation Safety	3
AVMT 251 Airport Management	3
AVMT 256 Airline Management	3
Required for Certificate:	18

COMMERCIAL PILOT FLIGHT TRAINING CERTIFICATE

AVMT 141 Private Pilot Ground School	3
AVMT 142 Private Pilot Certification	3
AVMT 241 Instrument Pilot Ground School	4
AVMT 242 Instrument Pilot Rating	3
AVMT 246 Commercial Pilot Ground School	4
AVMT 247 Commercial Pilot Certification	3
Required for Certificate:	20



Note: some courses have prerequisites. Please refer to the college catalog for more information. You may view the college catalog online by visiting the CCBC web site: <http://www.ccbcmd.edu/>

AVMT 101 - 3 credits - Aviation History and Development explores the evolution of aviation, focusing on the rapid growth of the aviation industry and its influence on economic, military, and political advancement. Progressive developments in aircraft design, aerodynamics, powerplants, government agencies, and the national airspace system will be related.

AVMT 141 - 3 credits - Private Pilot Ground School provides all required ground instruction for the Private Pilot Certificate. Upon successful completion of this course, students will receive an endorsement to take the FAA Private Pilot knowledge examination. Topics discussed in this course include: aerodynamics, flight theory, aircraft systems, powerplants, aircraft control and operation, safety, communications, airspace, navigation, weight & balance, meteorology, FAA regulations, flight physiology, Crew Resource Management, (CRM), and aircraft performance.

AVMT 142 - 3 credits - Private Pilot Certification completion of the Private Pilot Certificate through academic, flight and simulator training. Instruction includes preflight procedures, airport operations, takeoffs, landings, go-arounds, performance maneuvers, ground reference maneuvers, navigation, slow flight and stalls, basic instrument maneuvers, emergency procedures, night flying operations, safety, and post-flight procedures. Flight lab fee - \$ 9,000 airplane / \$ 14,000 helicopter.

AVMT 143 - 3 credits - VFR Flight Operations provides an introduction to pilot operations for non-pilots. Instruction includes preflight procedures, airport operations, takeoffs, landings, go-arounds, navigation, communications, instrument flight, emergency procedures, night flying operations, safety, and post-flight procedures. Flight lab fee - \$ 2,000.

AVMT 151 - 3 credits - Flight Attendant Fundamentals provides an introduction to flight attendant procedures and operations. Topics include the use of aircraft safety equipment, Federal Aviation Administration (FAA) regulations, passenger cabin procedures, human factors, passenger care and management, conflict resolution, and crew resource management.

AVMT 201 – 4 credits – Aviation Meteorology provides an in-depth discussion of atmospheric science and the relationship to flight operations. Students learn thermal and pressure patterns, atmospheric circulation, jet stream movement, air masses, fronts, stability, cloud formation, fog, icing, turbulence, thunderstorm development, and seasonal weather trends. Meteorological hazards to flight operations are presented and integrated with detailed weather analysis and modern forecasting techniques.

AVMT 211 - 3 credits - Air Transportation discusses the importance of transportation in the United States economy, contrasting the different modes of transportation, government regulation, development, and transportation policies. This course will highlight advancements in air transportation and focus on general aviation, airline classification, structuring, pricing, scheduling, route selection, and problems facing the system under deregulation.

AVMT 216 - 3 credits - Aviation Safety explores the causes of aircraft accidents, both ground-based and inflight. This course provides an overview of NTSB accident investigation procedures, the development of accident prevention programs, regulations and government agencies involved in promoting aviation safety. Aviation safety planning, safety awareness, and human factors leading to aircraft-related accidents will be examined.

AVMT 221 - 3 Credits - The Air Traffic Control System provides an analysis of Air Traffic Control (ATC) functions. Studies include the history, development, and structure of the National Airspace System (NAS), navigation aids, ATC radar systems, terminal and enroute control, flight service and weather facilities, instrument flight rules, airspace, an introduction to aircraft recognition, and FAA regulations. Visits to nearby ATC facilities are included.

AVMT 226 - 3 credits - Air Traffic Control Operations I presents a comprehensive analysis of regulatory flight publications including manuals, charts, advisory circulars and procedures. Students will gain a keen understanding of the importance and function of the FAA regulations, Aeronautical Information Manual, Letters of Agreement, Terminal Procedures (TERPS) publications and applicable FAA Orders. Aircraft Recognition and Performance will also be studied and applied. These lessons will be correlated and reinforced with simulation exercises where students will be challenged to use proper pilot-controller phraseology and decision making skills.

AVMT 227 - 3 credits - Air Traffic Control Operations II introduces radar control procedures including radar theory, equipment and operation, radar interpretation, hand off procedures, sector coordination, LOA, flight progress strips, weather and conflict resolution. Students will practice these skills in terminal radar approach control (TRACON) and air route traffic control center (ARTCC) laboratory simulation facilities.

AVMT 228 - 3 credits - Air Traffic Control Operations III introduces air traffic control tower operations, equipment, policies and procedures. Students will learn proper teamwork, decision making and CRM skills and apply their knowledge of non-radar operations through ATC tower simulator exercises. These exercises will present challenging scenarios such as Land and Hold Short procedures, holding and IFR approaches, aircraft emergencies and other dynamic examples.

AVMT 229 - 3 credits - Air Traffic Control Operations IV serves as a capstone course enabling students to demonstrate and review their knowledge and skills in air traffic procedures. In this course students will engage in a series of individual and group projects and extensive simulator training to enhance their skills and abilities.

AVMT 230 - 3 credits - Air Traffic Facility Internship Students will participate in a working internship at nearby air traffic facilities including air traffic control towers at BWI and Washington National airports, Potomac Consolidated Terminal Radar Approach Control (TRACON), or Washington Air Route Traffic Control Center (ARTCC).

AVMT 241 - 4 credits - Instrument Pilot Ground School provides all required ground instruction for the Instrument Rating. Upon successful completion of this course, students will receive an endorsement to take the FAA Instrument Pilot written examination. Topics discussed in this course include flight by reference to instruments, instrument flight rules, the National Airspace System, airborne navigation equipment, flight management systems, meteorology and weather avoidance equipment, FAA regulations, safety, flight physiology, communications, CRM, and terminal procedures.

AVIATION COURSE DESCRIPTIONS

AVMT 242 - 3 credits - Instrument Pilot Rating provides academic, flight, and simulator training required for the Instrument Pilot Rating. Instruction includes preflight preparation, air traffic control clearances and procedures, flight by reference to instruments, navigation systems, instrument approach procedures, emergency operations, safety, and post-flight procedures. Students successfully completing this course will receive their Instrument Pilot Rating. Flight lab fee - \$ 9,000 airplane / \$ 14,000 helicopter

AVMT 243 - 1 credit - IFR Flight Operations provides an introduction to Instrument Flight Rules (IFR) flying operations for *non-pilot students*. Instruction includes flight by reference to instruments, radio navigation, Air Traffic Control (ATC) communications, weather avoidance, flight planning and instrument approach procedures. This course is designed to be taken concurrent with AVMT 241. Flight lab fees - \$ 1,000.

AVMT 246 - 4 credits - Commercial Pilot Ground School provides all required ground instruction for the Commercial Pilot Certificate. Upon successful completion of this course, students will receive an endorsement to take the FAA Commercial Pilot written examination. Topics discussed in this course include advanced aerodynamics, high performance aircraft, including multi-engine and turbine aircraft, advanced aircraft systems, safety, navigation, meteorology, FAA regulations, flight physiology, high altitude flight operations, and crew resource management (CRM).

AVMT 247 - 3 credits - Commercial Pilot Certification provides academic, flight, and simulator training required for the Commercial Pilot Certificate. Instruction includes preflight preparation, specialty takeoffs and landings, commercial pilot maneuvers, navigation, slow flight, stalls, spin awareness, emergency procedures, safety, operation of complex and high performance aircraft, high-altitude procedures, and postflight procedures. Students successfully completing this course will receive their Commercial Pilot Certificate. Flight lab fee - \$ 12,000 airplane / \$ 18,000 helicopter

AVMT 251- 3 credits- Airport Management introduces the student to the historical development of modern airports, business and operational factors facing airport management, airport regulations and government agencies, labor and personnel relations, security, safety, facility maintenance, airport tenants, funding, airport design and expansion planning, marketing, and public relations.

AVMT 256 - 3 credits - Airline Management provides an in-depth study of airline operations. Topics include determination of airline fleet composition, scheduling, demand forecasting, pricing structure, facilities planning, marketing, financing, analyzing labor requirements, operational costs, and profit/loss reporting.

SCHOLARSHIPS & GRANTS

Students should take advantage of all available scholarships, grants, and financial aid to help pay for their education! There are numerous scholarships and grants available, depending on your student status, curriculum, and ethnic background. CCBC Financial Aid can help you identify applicable grants.

CCBC Student Services has a list of locally available scholarships. Students are encouraged to visit the following web site for aviation scholarship information: <http://www.avscholars.com/>. For a list of nationally available scholarships, perform a web search using key words "aviation scholarships"

FINANCIAL AID

The CCBC Financial Aid office can help you with obtaining Student Loans, but students must ensure that they provide the proper paperwork to the financial aid counselors on a timely basis. There are also deadlines for application. The CCBC Financial Aid office is located in K-building and may be contacted at 443-840-4170.

Deadlines and other financial aid information are available on the CCBC Website: www.ccbcmd.edu. Do not expect student loans to happen overnight! Students should apply for student aid 1-2 months before the start of the semester. CCBC Financial Aid Counselors can advise you on what aid is available to meet your requirements.

The first step in obtaining any student loans is to complete and submit the **Free Application For Student Aid (FAFSA)**. FAFSA applications are available in the CCBC Financial Aid Office. The preferred method is to submit the form electronically via the web at the following address: <http://www.fafsa.ed.gov/> Submitting this form electronically is usually much faster.

You will need your financial information to complete the FAFSA form (income, W-2 documents). You must request that your info be sent to THE COMMUNITY COLLEGE OF BALTIMORE COUNTY. There is a place on the form to have this done. **The CCBC Federal Code is 002063.**

It will take several weeks before the government processes your application -- when this is done, an approval form will be sent to your address -- when you receive this information, immediately come to the financial aid office to complete the student aid process!

For more information, pick up a copy of the Federal Student Aid Guide, available in the Financial Aid Office, or visit the following web site: www.fafsa.ed.gov

Continued next page...

STUDENT LOANS

After you have completed the FAFSA form, you should schedule an appointment with a CCBC financial advisor to determine what grants and **subsidized** (guaranteed by the federal government) loans are available to you. You may not qualify for sufficient subsidized financial assistance to pay for your education, especially if you are pursuing the Flight Training degree. In this case, you have the option of pursuing **non-subsidized** student loans.

Most CCBC students enrolled in the Flight Training degree option elect to pursue non-subsidized student loans. The most common lender for these loans is Sallie Mae: www.salliemae.com. The Sallie Mae website has a wealth of information on selecting colleges and determining costs and affordability.

There are also numerous banking services that will offer student loans to those who qualify.

VETERANS BENEFITS

CCBC Aviation Courses are approved by the Veteran's Administration. In many cases, VA benefits will cover 100% of tuition costs.

Maryland National Guard members (Army & Air Force) are able to take advantage of a 50% tuition assistance plan and student loan repayment programs while attending **public** colleges and universities in Maryland. Under these programs, 100% of tuition costs (including flight training lab fees) may be financed through a combination of VA benefits and loan repayment programs.

Active duty military members (including retired or separated) will be able to use their VA Benefits to pay for academic courses, but generally flight training lab fees are excluded.

Visit our VA Liaison in the CCBC Financial Aid Office located in K-Building for details, or call 443-840-4305.