

AVIATION MANAGEMENT

Program Outline

Major:	AVIA
Length:	3 Years
Delivery:	6 Semesters, plus 3 work terms
Credential:	Ontario College Advanced Diploma, Co-op
Effective:	2012-2013
Location:	Barrie
Start:	Fall (Barrie)

Description

This program is designed to give students knowledge and hands-on experience in Aviation and Management as well as provide co-operative work experience in the Aviation industry. A variety of aviation courses provide students with a solid understanding of the aviation industry in Canada and around the world. Students are given the opportunity to pass the examination to receive their Restricted Aeronautical Radio Operation License. Management courses are designed to give students an understanding of management practices and procedures in order to be prepared for future promotional opportunities.

Career Opportunities

Graduates of the program obtain employment in general aviation and aviation operations positions where they may use their knowledge and skills to progress to more advanced positions. Graduates are employed in a wide variety of aviation fields such as Airline Management, Airport Management, Airport Planning, Flight Dispatch and Government Aviation agencies. In addition, the program provides graduates with a better chance of success in furthering their training with the Department of National Defense or to become Air Traffic Controllers, Commercial/Airline Pilots, and Flight Service Specialists.

Program Learning Outcomes

The graduate has reliably demonstrated the ability to:

- interact as a team member or team leader;
- demonstrate strong interpersonal, communications and time management skills;
- analyze, problem solve and use critical thinking skills to solve a variety of problems;
- demonstrate integrity and initiative to meet professional challenges;
- be aware of the ethical, environmental and safety issues within the Aviation industry;
- model the attitudes, values and ethics of good citizenship in the community and the workplace;
- demonstrate general management skills in relation to the Aviation industry;
- understand aviation fundamentals, operations, and terminology;
- apply current computer technology and use technical equipment specific to the Aviation industry;
- achieve the equivalent of one year of applied work experience.

Practical Experience:

Co-operative Education is a mandatory component of all Co-op programs at Georgian College; it has been designed as a process by which students integrate their academic education with paid work experience related to their program of study. This integration affects much more than simply earning a salary, including the adjustment to the work environment and the development of professionalism. It also reinforces skills and theory learned during academic semesters, develops professional contacts, job knowledge and career path, improves human relations and communication skills and promotes personal maturity and financial independence.

Students are requested to register, attend and participate in their scheduled co-operative education classes. These classes are scheduled for all first year students and are expected to be completed in order to proceed successfully to their first co-op work experience. To ensure students are eligible to proceed onto any co-op work experience students should refer to Promotional Status and Eligibility for Co-op as outlined in the College Calendar. Co-op policies and procedures can be located on our website:
www.georgianc.on.ca/careers/for-students/

Georgian College follows the Co-operative Education guidelines set out by the Canadian Association for Co-operative Education (CAFCE) and Education at Work Ontario (EWO) by supporting the learning outcomes designed for the program specific graduate profile and curriculum as set out by the Ministry of Training, Colleges and Universities.

The Program Progression:

Fall Intake - Barrie

Sem 1		Sem 2		Work Term 1		Sem 3		Work Term 2		Sem 4

Fall		Winter		Summer		Fall		Winter		Summer

2012 | 2013 | 2013 | 2013 | 2014 | 2014

Work Term 3 | Sem 5 | Sem 6

Fall | Winter | Summer
2014 | 2015 | 2015

Articulation:

A number of articulation agreements have been negotiated with universities and other institutions across Canada, North America and internationally. These agreements are assessed, revised and updated on a regular basis. Please contact the program co-ordinator for specific details if you are interested in pursuing such an option. Additional information can be found on our website at <http://www.georgianc.on.ca/academics/articulations/>

Admission Requirements:

Applicants must meet ONE of the following requirements to be eligible for admission to this program:

- OSS Curriculum: OSSD or equivalent with Grade 12 English (C) or (U) (ENG4C, ENG4U); plus any Grade 11* or 12 College level Mathematics (MBF3C, MAP4C or MCT4C) or 11* or 12 University level Mathematics (MCF3M, MCV4U, MHF4U, MCB4U, MGA4U or MDM4U). (*Minimum of 60% in Grade 11 College or University level Mathematics MBF3C or MCF3M)
- Academic and Career Entrance Certificate (ACE) program with Communications; Business, Apprenticeship or Technical Mathematics
- Ontario High School Equivalency Certificate (GED)
- Mature applicant with standing in the required courses and/or mature student testing that meets the minimum standards for admission

Applicants who are 19 years of age or over by the first day of classes, and who lack the academic entrance qualifications, may be considered for entrance to an appropriate post-secondary diploma or certificate program as mature applicants. Each applicant will be considered on an individual basis and acceptance will be determined by counselling, Communication Placement Assessment (CPA), previous post-secondary education and evaluation of experience. Some programs also have specific prerequisite requirements that must be met prior to admission. Mature applicants must meet all program specific prerequisites. Those applying as mature students and having no documentation of Grade 12 education must supply, if required, proof of age, such as a copy of an official birth certificate or driver's licence. Refer to Section 2.5 and 2.6 of the Academic Calendar for further details.

Additional Information:

International and Landed immigrant applicants to the Aviation Management Program should be aware that the ability to obtain a valid security clearance is a condition of employment (Co-op or Graduate) with some international airports in Canada and is definitely a requirement for employment (Co-op or Graduate) the Greater Toronto Airport Authority.

Students who have resided or worked outside of Canada within the last five years may have difficulty meeting Transport Canada's information standards. Unfortunately, due to security requirements, the Greater Toronto Airport Authority, airline and airside tenants, Transport Canada, Nav Canada, the Department of National Defense, and many international airports across Canada may not consider applicants from International Students and Landed Immigrants who have resided or worked outside of Canada within the last five years. The foregoing is for your information only. Students should follow up with any prospective employer to determine their own candidacy.

Other Program Information:

Past and concurrent flight training will be recognized and course exemptions will be considered based on previous education and work experience. Georgian College has made special arrangements with a local flight training facility for FLIGHTLAB at a reduced rate. These costs are over and above student tuition fees.

College scheduled Field Trips are a mandatory component of the Aviation Management program and must be attended by the student.

Graduation Requirements:

- 25 Mandatory Courses
- 2 Communications Courses
- 6 Optional Courses
- 5 General Education Courses
- 3 Co-op Work Terms

Graduation Eligibility:

To graduate from this program, the passing weighted average for promotion through each semester, from year to year and to graduate is 60%. Additionally, a student must attain a minimum of 50% or a letter grade of P (Pass) or S (Satisfactory) in each course in each semester.

Mandatory Courses

ACCT1004 Introduction To Accounting

AVIA1000 Aviation Orientation
AVIA1001 Aviation Operations
AVIA1003 Airport Management
AVIA1004 Operations Management
AVIA1005 Flight Lab
AVIA2000 Aircraft Characteristics
AVIA2001 Advanced Flight Lab
AVIA2002 Navigation and Navigation Aids
AVIA2005 Introduction to Aerodynamics
AVIA3000 Air Cargo, Customs and Logistics
AVIA3001 Airport Planning
AVIA3007 Airline Management
AVIA3009 Security Management Systems for Aviation (SeMS)
COMM1020 Technical Communication
COMP1062 Database and Office Management
COMP2022 Computer Applications - Spreadsheets
ECON1000 Microeconomics
GOVT1001 Government and Aviation
LAWS3002 Aviation Law
MATH1008 Introduction to Business and Technical Math
METE2000 Meteorology
MKTG1000 Introduction to Marketing
SOCL1000 Introduction to Sociology
STAT2002 Applied Statistics

Communications Courses

To be selected at time of registration from the College list, as determined by testing.

Optional Courses

AVIA2003 Area/Airspace 1
AVIA2004 Airport Control Services
AVIA3003 Aviation Safety/Accident Prevention
AVIA3004 Human Factors in Aviation Safety
AVIA3005 International Aviation and Management
AVIA3006 Air Accident Investigation
AVIA3010 Safety and Emergency Management
BUSI3001 Supervision
ECON2000 Macroeconomics
FNCE2000 Business Finance
FNCE2001 Managerial Finance
HURM1000 Human Resources Management Foundations
MATH2005 Algebra

MGMT3001 Managerial Decision Making
MGMT3003 Management and Planning Principles
MKTG1001 Planning the Marketing Strategy

General Education Courses
To be selected from College list

Co-op Work Terms
COOP1011 Aviation Work Term 1
COOP2010 Aviation Work Term 2
COOP3007 Aviation Work Term 3

Course Descriptions:

ACCT1004 Introduction To Accounting 42.0 Hours

This course covers basic accounting techniques, financial statements used in a business, and accounting for service and merchandising operations.

AVIA1000 Aviation Orientation 42.0 Hours

This introductory course provides students aspiring to a career in aviation with a background to all facets of the industry including aircraft knowledge, weather sense, air navigation techniques, airline structure, airport layout, and the air traffic control system. Moreover, students are given the opportunity to pass the examination to receive their Restricted Aeronautical Radio Operators License Certification.

AVIA1001 Aviation Operations 42.0 Hours

This course introduces the student to the basics of aviation operations. Areas of study include airline operations, airport operations and air traffic control operations and how these three areas work together to create and maintain airline scheduled operations. Aviation terminology is emphasized and current events that will shape the future of aviation will be analyzed and discussed.

AVIA1003 Airport Management 42.0 Hours

This course provides an understanding of the airport as an essential part of the air transport system. The course investigates the airport functional departments, examines the airport master planning process, and reviews the operational and management services of both large and small airports and considers environment parameters.

AVIA1004 Operations Management 42.0 Hours

This course introduces students to planning and control through the study of service industries and operations management. The course reviews up-to-date practical examples from manufacturing and non-manufacturing environments.

AVIA1005 Flight Lab 10.0 Hours

This course introduces the practical aspects of flight from the cockpit of an aircraft thereby enhancing the theoretical portion of the aviation program. The course consists of in-flight instruction and ground briefing. Flightlab will run concurrent with Aviation Orientation (AVIA1000) in Semester 1.

AVIA2000 Aircraft Characteristics 42.0 Hours

This course builds on your knowledge of aircraft operating systems and economics of operation. You will learn aircraft recognition procedures and techniques. The course also covers aircraft performance degradation in adverse weather conditions, the theory of rotary craft flight and control, instrumentation, jet engine theory and performance.

P- AVIA1000 Aviation Orientation or P- AIS4122 Aviation Orientation

AVIA2001 Advanced Flight Lab 10.0 Hours

This course continues and enhances the principles introduced in AVIA 1002 Flight lab. It enhances the VFR navigation of the program through a cross country flight and reinforces navigation and nav aids concepts from the cockpit of an aircraft thereby enhancing the theoretical portion of the aviation program. The course consists of in-flight instruction and ground briefings and will run concurrent with Navigation and Navigation Aids in semester 4.

P- AVIA1000 Aviation Orientation

AVIA2002 Navigation and Navigation Aids 42.0 Hours

An indepth study of air navigation methods, equipment, procedures, and how they relate to Air Navigation Systems. The student is given the opportunity to practise various navigation techniques in both a classroom and simulator setting. There is emphasis on advanced visual techniques and the proper use of a wide variety of electronic-based aids to navigation. VFR Navigation for transborder flight using GPS Waypoints for AVIA 2001 Advanced Flight Lab, preplanning is completed in this course.

P- AVIA1000 Aviation Orientation or P- AIS4122 Aviation Orientation

AVIA2003 Area/Airspace 1 42.0 Hours

This course introduces the student to Air Traffic Control from the perspective of an Area and Terminal Controller and details the organization of Canadian airspace and the relationship between airspace classification and Air Traffic Control. The distinct requirements from the Air Traffic Controller and the Pilot's perspective are reviewed as students learn to interpret aeronautical charts and publications. This course explains the roles of the Air Traffic controller, Technical Support, Administrators, Air Traffic Control Assistants and Air Traffic Flow Management and shows how these support the Control and Supplementary Services.

AVIA2004 Airport Control Services 42.0 Hours

This course provides students with an overview of Air Traffic Control (ATC) from the perspective of the Airport/Tower Controller. Basic Air Traffic Control rules and procedures are explained to provide students with an understanding of the relationship between ATC and the aviation world. The course provides students with the opportunity to practice the early stage job functions of ATC trainees. As well, the relationship between ATC and accident investigation/prevention and emergency responses to aviation occurrences are examined. The course will allow a development of the expectations and knowledge required to advance to an increased involvement within the ATC environment.

AVIA2005 Introduction to Aerodynamics 56.0 Hours

This course provides a study of the motion of air and the forces acting on bodies moving through the air. In addition, a detailed examination of how and why airplanes fly and the devices used to monitor and control flight is conducted. Finally, the various design concepts that affect stability and performance are introduced.

AVIA3000 Air Cargo, Customs and Logistics 42.0 Hours

This course begins with a look at the history and development of the air cargo and logistics industry in Canada and around the world. Current practices and procedures are examined as well as the analysis of the role of airlines, freight forwarders, airport cargo facilities, cargo security and the various agencies involved with air cargo. Current events relating to cargo will be discussed.

AVIA3001 Airport Planning 42.0 Hours

An introduction to the fundamentals of airport planning and design.

AVIA3003 Aviation Safety/Accident Prevention 42.0 Hours

This course deals with various hazards associated with aviation and managements' systematic, committed approach to safety and accident prevention. The course examines the conservation of people, property, process, and profits. Students review transport Canada's Airports Safety Program and the Transportation Safety Board investigation into the risk of aircraft collisions on or near the ground at Canadian civil airports. Students will review basic aviation safety program management at various organization levels.

AVIA3004 Human Factors in Aviation Safety 42.0 Hours

This course examines the major causative agent in aircraft accidents: the human being. Emphasis is placed on psychological and physiological factors which enhance the accident probability. Included is a detailed analysis of Ergonomics (human engineering) and its influence.

AVIA3005 International Aviation and Management 42.0 Hours

This course explores the world's regional economies and cultural differences. It discusses the different strategies available to managers to be effective in today's

dynamic global economy. International aviation's role and its managements' responses to economic globalization are covered through studies of recent events occurring in the industry.

AVIA3006 Air Accident Investigation 42.0 Hours

The student explores procedures for determining accident causes through analysis of such elements as the function of techniques employed by the trained accident investigator and the role of the specialized laboratory. Students learn to evaluate methods and procedures involved in aircraft accident investigations. Analyses are also made of reporting procedures and the all-important follow-up work designed to avoid like or related aircraft accidents.

AVIA3007 Airline Management 42.0 Hours

The primary focus of this course on the development, structure and business conduct of major airlines in the marketplace today. Students will be introduced to the various internal departments of an airline and their relationship to each other will be explored. The student will also be introduced to external opportunities and threats to the future viability of the various air carriers. (The affects of deregulation, airline partnerships, the role of the commuter carriers, and the contracting out of services.) Where ever possible case studies will be used to enhance student skills in research, problem solving and solution application.

AVIA3009 Security Management Systems for Aviation (SeMS) 42.0 Hours

This course equips students with the knowledge necessary to plan, develop, implement, and evaluate aviation security management procedures. Students will be introduced to the history of aviation security, current and future security challenges, as well as proposed security solutions.

AVIA3010 Safety and Emergency Management 42.0 Hours

This course equips students with the knowledge necessary to plan, develop, implement and evaluate aviation Safety Management Systems (SMS) and emergency planning procedures. Students will investigate the role that regulatory, organizational and human factors play when incorporating a Safety Management System. This course will also equip students with the knowledge necessary to plan for and deal with the various types of emergencies encountered in the aviation Industry.

BUSI3001 Supervision 42.0 Hours

In this course, you study ways to manage others and yourself in a changing workforce, by developing a thorough understanding of the basic principles, concepts, and vocabulary of employee supervision. The sessions are interactive and provide you with opportunities to discuss and participate in a variety of approaches to supervision.

COMM1020 Technical Communication 42.0 Hours

Technical communication skills are required in service, technical, and business environments. Students develop researching, planning, designing, and writing skills to prepare documents. Individually and collaboratively, students learn and apply information structures to produce documents such as descriptions, instructions, and manuals.

P- COMM1016 Communication Essentials or P- COMM1000 new COMM model implemented Fall 2012, no longer offering COMM 1000/1001 or (P- CPT3 CPT Reading Comprehension and P- CPT4 CPT Sentence Structure)

COMP1062 Database and Office Management 42.0 Hours

This course covers basic functions in database and office management software and advanced functions of word-processing and presentation applications. The word-processing portion includes using headers, footers, and table of contents, bibliographies, end notes and footnotes, creating newsletters and flyers and mail merging. The database portion presents students with the essential aspects of database design, implementation, and maintenance. Students also learn to build professional presentations. Effective office organization skills are developed using communication software including calendar, task, and file management.

COMP2022 Computer Applications - Spreadsheets 42.0 Hours

This course is designed to allow the student hands-on microcomputer experience through the utilization of an integrated application combining electronic spreadsheets, graphics and database.

COOP1011 Aviation Work Term 1 560.0 Hours

Co-operative Education is a mandatory component of the Aviation Management Program at Georgian College and is a requirement for graduation. Co-operative Education provides students with the skills to conduct a self-directed and college-directed job search. Students are required to attend and participate in scheduled co-op classes CPHR 0001 (12 sessions) prior to their first co-op work experience. Students are responsible to obtain a co-op work experience with an approved employer related to the profile of the graduate for a period of 14 weeks, typically in the summer semester. It should be noted that due to the nature of the industry students may be required to relocate for the duration of the work term and provide own transportation to and from their place of employment. In addition, students may be required to pass a Transport Canada Security clearance prior to being accepted for a position.

COOP2010 Aviation Work Term 2 560.0 Hours

Students are required to attend a scheduled debriefing session. This session will be scheduled in the first month for all Work Term 1 returning co-op students entering Semester 3. This session is intended to allow students to validate and submit supporting documentation for Work Term I credit. This must be achieved before proceeding to Co-op Work Term 2. Students are responsible to obtain a second co-op

work experience with an approved employer related to the profile of the graduate for a period 14 weeks, typically in the winter semester.

P- COOP1011 Aviation Work Term 1

COOP3007 Aviation Work Term 3 560.0 Hours

Work Term 3 students are required to attend a scheduled debriefing session. This session will be scheduled in the first month for all returning co-op students entering Semester 5. This session is intended to allow students to validate and submit supporting documentation for Work Term 3 credit. Students are responsible to obtain a third co-op work experience with an approved employer related to the profile of the graduate for a period 14 weeks, typically in the fall semester.

P- COOP2010 Aviation Work Term 2

ECON1000 Microeconomics 42.0 Hours

This course provides an introduction to the principles and methods of economic analysis. The course examines how households and firms make economic decisions. It also analyzes the efficiency of scarce resource allocation under a range of market structures.

ECON2000 Macroeconomics 42.0 Hours

This course is designed to give students an understanding of how the overall economy operates and what economic indicators tell us about its health. The course explores government options for stabilizing the economy, and the impact of international trade. It is highly recommended that students take Microeconomics (ECON 1000 or equivalent) prior to taking this course.

FNCE2000 Business Finance 42.0 Hours

This is an introductory course for the financial manager. This course covers terms, techniques, policies, patterns, and problems relating to business finance.

P- ACCT1004 Introduction To Accounting or P- ACC9101 Introduction To Accounting or P- ACCT1000 Financial Accounting Principles 1 or P- ACC2122 Financial Acctg. Principles 1 or P- ACCF1000 Principes de compt financière or P- ACF9101 Introduction A La Comptabilite or P- ACCT1010 Accounting 1 or P- BDE2101 Introductory Accounting or P- ACC2113 Intro Accounting 1 or P- FNCE1001 Understanding Accounting

FNCE2001 Managerial Finance 42.0 Hours

This is an advanced course for the financial manager. It includes capital budgeting decisions, management of funds, financial implications of various kinds of business decisions.

P- MATH1002 Mathematics of Finance or P- MATH1008 Introduction to Business and Technical Math or P- MATH1006 Mathematics for Technology or P- MATH1001 Mathematics of Finance (ODE)

GOVT1001 Government and Aviation 42.0 Hours

This course examines the structure of governments and develops the student's awareness and understanding of how it impacts on the international aviation community. Special emphasis is given to the International Civil Aviation Organization's (ICAO) regulatory, financial and safety control of aviation.

HURM1000 Human Resources Management Foundations 42.0 Hours

This course provides an understanding of the modern Canadian human resources function. It covers the historical development of human resources management, the influence of government, staffing, employee relations, current trends and future issues. It provides a brief introduction to more specialized areas including compensation, training and development, employment law, industrial relations, occupational health and safety, and human resources planning.

LAWS3002 Aviation Law 42.0 Hours

In this course, the student learns the legal issues affecting today's Canadian aviation industry. There is an emphasis on typical contracts and leases within aviation-related enterprises. Other topics include: fundamentals of Canadian civil law, including case and statute law; tort of negligence; product liability; employment law; occupational health and safety; human rights codes; insurance law. Attendance is mandatory at guest speaker workshops.

MATH1008 Introduction to Business and Technical Math 42.0 Hours

This course provides a foundation in mathematics for students requiring both applied business and technical mathematical skills. Mathematical techniques are applied to a range of business and technical problems thus providing students with the necessary skills for introductory finance and calculus courses.

MATH2005 Algebra 42.0 Hours

This course introduces the student to algebraic and mathematical concepts that will support future courses. The intent of this course is to provide the student with a broad introduction to algebra and related mathematics applications. This course provides the student with the fundamental of mathematics to continue into engineering and technician programs.

METE2000 Meteorology 56.0 Hours

The atmosphere is studied with respect to energy exchanges with the earth and sun, the theory of normal and severe weather occurrences and atmospheric instrumentation. Environmental problems which impact on atmospheric equilibrium are discussed as well as their climactic implications. Sky observation and recording, aviation weather report interpretation and weather hazardous to flight comprise the aviation component.

MGMT3001 Managerial Decision Making 42.0 Hours

This course is designed as a business decision simulation which offers students the opportunity to apply the 'tools' they have acquired in previous courses (i.e accounting,

finance, marketing, human resource management) to solving real business problems in a competitive environment. Students must perform in an actual organizational environment and as such will better understand the interrelationships of the various functional areas. It is strongly recommended that students have taken a Business Finance and/or advanced accounting course.

MGMT3003 Management and Planning Principles 42.0 Hours

This course profiles the practice of management in Canada. Emphasis is on the management principles of planning, organizing, leading and controlling the organization. A systematic study of the management process is made to identify and integrate the foundations of the systems approach and its application to aviation in Canada.

MKTG1000 Introduction to Marketing 42.0 Hours

This is an overview course with primary focus on marketing products and services to the ultimate consumer. Emphasis is placed on the basic marketing premise that customer needs must be satisfied in order to achieve company objectives. The student gains insight into the complex and interdependent variables involved in developing successful marketing strategies. The strategic marketing planning process is introduced, along with the specific concepts and principles involved in the four key components of the marketing plan - Product, Price, Distribution, and Promotion Strategies.

MKTG1001 Planning the Marketing Strategy 42.0 Hours

This course involves the elements that a company controls and uses to put together as its Marketing Program. These four controllable elements are Product, Place, Price, and Promotion. Planning the Marketing Strategy provides an understanding of the growing interest in customer value. This interest is incorporated in designing a successful marketing plan in a consumer-oriented society.

P- MKTG1000 Introduction to Marketing or P- MAR9101 Introduction To Marketing or P- MKTG1004 Marketing Foundations or P- MAR9103 Marketing Foundations or P- MKTG1009 Marketing 1 (ODE)

SOCL1000 Introduction to Sociology 42.0 Hours

Sociology is the study of people and how they interact with each other and various social groups. The course is designed to develop awareness of the relationship between individual beliefs, attitudes and behaviours, and the wider society and culture. Students will develop the ability to apply sociological concepts to current issues that affect individuals, Canadian society and the international community. Topics include sociological theory, research, culture, socialization, interaction, class structure, organizations, deviance, and social stratification.

STAT2002 Applied Statistics 42.0 Hours

This course focuses on both the descriptive and inferential components of an introductory statistics course. Descriptive data is presented using frequency distributions and graphing techniques. Problem solving is the focal point of the

inferential component with emphasis on the implications of probability, the purpose of confidence intervals, the power of hypothesis testing and the application of correlation analysis.

Course Description Legend

P = Prerequisite; C = Concurrent prerequisite; CO= Corequisite

Information contained in College documents respecting programs is correct at the time of publication. Academic content of programs and courses is revised on an ongoing basis to ensure relevance to changing educational objectives and employment market needs. The college reserves the right to add or delete programs, options, courses, timetables or campus locations subject to sufficient enrolment, and the availability of courses.