



Program Code: FPR

Campus: [Newnham](#), [Markham](#), [Buttonville](#)

Duration: 8 Semesters (4 Years)

Start Dates: Fall

8 academic semesters plus 2 intensive flight training semesters (4 Years), 1 summer co-op work term

Start dates are subject to change

Credential Awarded: Bachelor of Applied Technology

Program Description

Seneca College has been a national leader. Seneca's Flight Program is the only aviation technology-based degree program in Canada. We've been the national leader in aviation education for more than 40 years and responding to emerging industry demands, we're now educating students at the degree level.

Our Bachelor of Applied Technology - Flight Program, provides a rigorous aviation technology-based curriculum and the application of this theory to aviation. The breadth of knowledge and skills prepares you to operate safely in a complex aircraft, to understand the technologies and human factors that affect the successful operation of an aircraft and to assume the professional responsibility associated with being a commercial pilot.

You'll also learn business management, airport operations and planning, and air carrier administration to gain a "larger sense" of the aviation industry and ultimately access a greater variety of careers in the industry.

Seneca College has been granted a consent by the Minister of Training, Colleges and Universities to offer this degree for a five-year term starting September 8, 2008. Seneca will ensure that all students admitted to the above named program during the period of consent will have the opportunity to complete the program within a reasonable time frame.

Admission Requirements

Program Eligibility:

- Ontario Secondary School Diploma with a majority of senior credits at the University Preparation (U) or University/College Preparation (M) level or Mature Student Status (age 19 or older)
- Six Grade 12 (U) or (M) courses with a minimum 65% average including:
- Grade 12 English: ENG4(U)
- Grade 12 Mathematics: Calculus and Vectors MCV4(U)
- Grade 12 Mathematics: Advanced Functions MHF4(U)
- Grade 12 Physics: SPH4(U)
- Candidates must attend a mandatory College orientation session
- Candidates who are offered admission to the program must also pass a medical examination administered by a physician designated by the College and a drug and alcohol test, prior to starting classes at Seneca. In order to pass the medical examination, candidates must meet Transport Canada's Physical and Mental Requirements Category 1.
- Mature students (age 19 years or older) must submit proof of credits in the above subjects or their equivalent.

Recommended:

- Grade 11 (U) Chemistry

Scholarships: Scholarship opportunities are available for candidates with distinguished academic records in their high school careers. A variety of scholarships and bursaries are available to students based on merits/financial needs.

Applicant Selection:

- In addition to grades in the required subjects, applicants must attend a mandatory College orientation session and complete given assignments and/or tests. Those offered admission must pass a medical exam administered by a physician designated by the College, pass a drug and alcohol test and must not have any criminal convictions that would preclude them from holding an airport security clearance.
- Please note it is common practice for the Aviation Industry to require police criminal checks and drug testing on employment. Due to these industry requirements the College has changed its entrance requirements to address these practices.
- In order for students to fly to the United States during their flight training, it is strongly recommended that students have a valid Canadian passport or a United States entrance visa.

Restrictions:

- Persons holding a Commercial Pilot Licence may not be eligible for the FPR program. Contact the Program Director for further information.

The Importance of Learning Skills:

Student success in college requires well developed learning skills (such as being able to work independently, participate in a team, be well-organized, develop good work habits, and show initiative). These skills are as important as prior academic achievement. While it is expected that applicants would have developed these skills through previous education and life experiences, Seneca offers support to assist students with further development of these important skills.

Your Career

The Bachelor of Applied Technology - Flight Program, puts you at the leading edge of aviation training. As a graduate of this program, you will be well-positioned to compete in the global market as a professional pilot in general aviation and with regional air carriers, later progressing to corporate aviation and major airlines. The breadth and depth of the program mean that you could also pursue exciting careers in government regulatory agencies, airport authorities, flight test and evaluation, aircraft manufacture and marketing, and the aviation insurance industry.

In addition to traditional technological and flight competencies, the aviation industry is increasingly demanding management and interpersonal skills. Our Crew Resource Management and Human Factors training help develop these competencies and the result is that this Flight Degree Program is ideally positioned to meet the future requirements of the Canadian and global aerospace industry. Every year we're graduating technically competent future managers and leaders.

Your career options will increase with experience and many graduates can expect a progression to management ranks over time. You'll also have the opportunity to pursue additional studies at the graduate level. Details on these opportunities are available from the Program Director.

Program Outcomes

As a graduate of the Bachelor of Applied Technology (Flight Program) you will be able to:

1. Independently fly and safely operate multiengine airplanes;
2. Demonstrate a comprehensive understanding and the appropriate application of aerospace principles, airplane design, airplane characteristics, operational limitations, aerodynamic principles and airplane properties for a variety of airplanes and designs;
3. Conduct yourself professionally and ethically and promote a professional pilot image;
4. Be confident with automation, complex equipment and technically challenging systems and with the verification of status, level and programming of automated systems;
5. Maintain safe operating conditions for all geographical areas and flying conditions;
6. Communicate effectively and concisely ideas, directions, and operations, in written and oral communications;
7. Use effective stress-management strategies;
8. Demonstrate appropriate and effective decision making skills;
9. Demonstrate effective leadership and motivation skills.

Applied Degree Structure

Year 1	
Term 1:	September: Academic
Term 2:	January: Academic / Flight Training
Term 3:	May: Intensive Flight Training
Year 2	
Term 1:	September: Academic / Flight Training
Term 2:	January: Academic / Flight

	Training
Term 3:	May: Intensive Flight Training or co-operative education work term
Year 3	
Term 1:	September: Academic / Flight Training
Term 2:	January: Academic / Flight Training
Term 3:	May: Intensive Flight Training or cooperative education work term
Year 4	
Term 1:	September: Academic / Flight Training
Term 2:	January: Academic / Flight Training

Co-operative Education

Students in the Flight Program benefit from a full-time consecutive co-operative education work experience. One successful (as indicated by the learning outcomes for co-operative education work terms) work term of 14 weeks is required for graduation. This work term may be taken during Term 3 of either Year 2 or Year 3.

Flight Training

The Seneca College flight program is a Transport Canada approved Integrated Airline Transport Pilot training program that prepares students to be Commercial Airline Pilots. Intensive flight and simulator training is an integral part of this rigorous degree program. Eight semesters of flight training is a required component of the program. Two of these Intensive training semesters will occur during the summer months.

Students who are unable to achieve a satisfactory rating in their flight training after a set number of attempts, will be withdrawn from the FPR program and will be ineligible for re-admission. Please note that the flight training is carried out seven days per week and students will be required to fly some weekends during their training. Students are also required to adhere to a dress code for all classes and flight training.

Tuition

Tuition fees for this program are significantly higher than other college degree programs. Please contact the Admissions Office for more information.

Promotion Policy

The Post Secondary Education Quality Assessment Board has mandated promotion and graduation requirements for all applied degree programs. Students in the Flight Program must achieve a minimum grade of C+ in all courses in order to be promoted in the program*. Attendance to all classes is a Transport Canada requirement for promotion.

**Students must pass all Transport Canada exams, which have higher pass grades.*

Curriculum

<u>Semester 1</u>	Subject Name	Hrs/Wk
AER100	Aeronautics Fundamentals	4
COM100	Communications	4
ELE100	Electricity Fundamentals	5
ISR104	Computer Fundamentals	3
MEC110	Mechanics	4
MTH110	Mathematics	4
<u>Semester 2</u>	Subject Name	Hrs/Wk
AER200	Advanced Aeronautics	4
ELE200	Fundamentals of Electronics	4
MEC200	Mechanics II	4
MTH200	Mathematics II	4
PHY200	Physics	5
XXXXXX	Liberal Studies Elective	3
<u>Summer 1</u>	Subject Name	Hrs/Wk
FLY100	Flight Training	14
<u>Semester 3</u>	Subject Name	Hrs/Wk
AVN300	Instruments and Avionics Fundamentals	3
CHM300	Chemistry	5
FLY200	Flight Training	8
MET400	Meteorology	3
MTH300	Mathematics	3
MTS300	Materials Science	3
XXXXXX	Liberal Studies Elective	3
<u>Semester 4</u>	Subject Name	Hrs/Wk
ARO400	Fundamentals of Aerodynamics	4
ASD400	Aircraft Structural Design	3
AVN400	Advanced Instruments and Avionics	3
COM400	Technical Writing	3
FLY300	Flight Training	8

IRT500	Instrument Rating Procedures	4
THE300	Thermodynamics	3
CPP600	Co-op Professional Practice	2
Summer 2		
	Subject Name	Weeks
FLY400	Summer Flying Practicum	14
	OR	
CWT100	Co-op Work Term	14
Semester 5		
	Subject Name	Hrs/Wk
ARO500	Advanced Aerodynamics	3
ASY500	Basic Aircraft Systems	3
BAB100	Introduction to Canadian Business	3
FLP500	Flight Propulsion	4
FLY400 /FLY500	Flying	8
HUM500	Human Factors Ethics and Safety	3
CPP700	Co-op Integration and Career Planning	1
Semester 6		
	Subject Name	Hrs/Wk
AAS700	Advanced Aircraft Systems	3
ACP700	Air Carrier Procedure	3
ASC600	Aircraft Stability and Control	3
BAB700	Management Principles and Practices	3
CPA600	Computer Programming Aerospace	2
FLY500 /FLY600	Flying	8
SMS600	Safety Management System	3
CPP600	Co-op Professional Practice	2
Summer 3		
	Subject Name	Weeks
FLY400	Flying	14
	OR	
CWT100	Co-op Work Term	14
Semester 7		
	Subject Name	Hrs/Wk
ADM600	Air Carrier Administration	3
ADV700	Advanced Aircraft Design	3
FLO600	Flight Operations I	3
FLY700 /FLY800	Flying	8
FSL100	Introductory French I	3
LSP700	Applied Research Methodology	3
CPP700	Co-op Integration and Career Planning	1

<u>Semester 8</u>	Subject Name	Hrs/Wk
ADV800	Advanced Aircraft Design	3
AOP800	Airport Planning	3
FLO800	Flight Operations II	3
FLY800 /FLY900	Flying	8
LSP800	Applied Research Project	4
XXXXXX	Liberal Studies Elective	3

Seneca College has been granted a consent by the Minister of Training, Colleges and Universities to offer the Bachelor of Applied Technology flight program. This program is also accredited by the Aviation Accreditation Board International (AABI). This board accredits Aviation University and College aviation programs. The School of Aviation and Flight Technology is a member of the University Aviation Association (UAA) and the Air Transportation Association of Canada (ATAC). This program is Transport Canada approved (Integrated Airline Transport Pilot Program (ATP (A))).

"In this age of globalization, the aviation industry is a major player. Airlines are also looking for a good educational background for pilot hiring as modern aircraft and crew need to be managed well for a safe flight. It is no longer sufficient to be able to fly the aircraft well. Your proposed degree syllabus appears to address many of the challenges the new pilots will be facing. They will have a solid knowledge of the complex components they will be operating and also the principles governing all phases of the operation. I congratulate you and Seneca College for making this farsighted proposal and wish you success in your enterprise."

Manzur Huq
Director, General Aviation, Transport Canada

"We are very conscious of the change in aviation training within the North American context. Our counterparts within the USA industry have been strong supporters of a comprehensive aviation degree. We are of the same mind and congratulate you for considering a similar aviation degree within Canada."

R.T. Deane
Director, Flight Operations Training, Air Canada

"When I applied to Seneca's School of Aviation and Flight Technology, I thought it was the best decision that I could make. When I landed my dream job, a few months after graduation, I knew I had made the right choice. Now that I have been working in the industry, I can see why the Bachelor of Applied Technology Flight Program and its graduates have such a highly regarded reputation. The school's experienced and diverse faculty know what it takes to be successful in aviation and do an incredible job of preparing students for their future careers."

Daryl Wood
2007 FPR Graduate
Co-pilot, Air Canada Jazz