



COURSE OUTLINE: AVT363 - ADVANCED FLIGHT SYS.

Prepared: Michael Nearing

Approved: Greg Farish - Dean

Course Code: Title	AVT363: ADVANCED FLIGHT SYSTEMS
Program Number: Name	4061: AVIATION TECHNOLOGY
Department:	AVIATION TECHNOLOGY
Academic Year:	2025-2026
Course Description:	This course is designed to familiarize the student with modern Flight Management Systems (FMS). General philosophy of the FMS will be studied as well as modes of operation. The course of study will focus on FMS principles, Pilot interface and Procedures. Topics will include programming the FMS from Origin to Destination, including vertical and lateral revisions to the Flight Plan. The Flight Management Guidance System of the Airbus family of aircraft will be studied.
Total Credits:	2
Hours/Week:	2
Total Hours:	30
Prerequisites:	AVT258, AVT366
Corequisites:	There are no co-requisites for this course.
This course is a pre-requisite for:	AVF373, AVT370, AVT377
Essential Employability Skills (EES) addressed in this course:	EES 1 Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience. EES 2 Respond to written, spoken, or visual messages in a manner that ensures effective communication. EES 4 Apply a systematic approach to solve problems. EES 5 Use a variety of thinking skills to anticipate and solve problems. EES 6 Locate, select, organize, and document information using appropriate technology and information systems. EES 7 Analyze, evaluate, and apply relevant information from a variety of sources. EES 10 Manage the use of time and other resources to complete projects.
Course Evaluation:	Passing Grade: 70%, B A minimum program GPA of 2.0 or higher where program specific standards exist is required for graduation.
Other Course Evaluation & Assessment Requirements:	Evaluation Considerations: Students will be assessed by a combination of attendance and department, quizzes, tests, and a final exam.



Dates of tests will be announced at least 1 week in advance.

Quizzes will be given without prior notice.

Students may request a deferment of a test for compassionate reasons. Compassionate Grounds for deferment will include but not be limited to death of an immediate family member, personal illness, or recent diagnosis of a serious illness of a family member. Make-up evaluations will not be permitted without prior notice regardless of the circumstances.

Attendance:

Attendance is mandatory for courses which appear on the student's formal Ground School Record required by Transport Canada.

To be excused from class due to illness or other unforeseen circumstance, students must inform their instructor/professor via email prior to the start of class. A make-up class may be required.

Unexcused absences will result in 2% deduction from the final mark for each occurrence. Arriving for class late will result in a 1% deduction from the final mark for each occurrence.

Classroom Conduct:

A classroom code of conduct can be found in the Sault College Student Code of Conduct policy, on the Sault College Website. This along with the list of Unacceptable Behaviours in the Sault College Aviation's SOPs must be adhered to.

Violations of the dress code will result in a Letter of Warning (LOW). Refer to the Sault College Aviation Standard Operating Procedures (SOPs) manual, Section 10, for dress code policies.

Student Support and Students at Risk:

Student support services are provided through Sault College's Student Services department. All students are encouraged to use these services to enhance their learning experience. Services like peer tutoring provides support from Aviation students in years ahead, who have demonstrated success in the program.

If a faculty member determines that a student is at risk of not being successful in their academic pursuits and has exhausted all strategies available to faculty, student contact information may be confidentially provided to Student Services to offer even more assistance with options for success. Any student wishing to restrict the sharing of such information should make their wishes known to the coordinator or faculty member.

Course Outcomes and Learning Objectives:

Course Outcome 1	Learning Objectives for Course Outcome 1
The student should be able to reliably demonstrate the use of the FMS as it relates to the Airbus Family of Aircraft in all phases of flight. Also be able to differentiate between Managed and Selected Guidance and how this	To methodically load the Flight Plan into the FMS applying the correct procedures with emphasis on Lat/Long entries through the Multi Function Control and Display Unit (MCDU). Also to familiarize the student with modern Electronic Flight Instrument Systems (EFIS) and illustrate how the system is integrated with the FMS.



	relates to aircraft trajectories.						
Evaluation Process and Grading System:	<table border="1"> <thead> <tr> <th>Evaluation Type</th> <th>Evaluation Weight</th> </tr> </thead> <tbody> <tr> <td>Final exam</td> <td>50%</td> </tr> <tr> <td>Midterm test</td> <td>50%</td> </tr> </tbody> </table>	Evaluation Type	Evaluation Weight	Final exam	50%	Midterm test	50%
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Date:	August 27, 2025						
Addendum:	Please refer to the course outline addendum on the Learning Management System for further information.						