



COURSE OUTLINE: AVT369 - IFR NAVIGATION

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Approved: Greg Farish - Dean

Course Code: Title	AVT369: NAVIGATION AND INSTRUMENT PROCEDURES
Program Number: Name	4061: AVIATION TECHNOLOGY
Department:	AVIATION TECHNOLOGY
Academic Year:	2025-2026
Course Description:	This advanced Instrument Flight Rules (IFR) course delves into comprehensive IFR flight planning, focusing on Canadian domestic routes and high-level operations. Students will explore aircraft system requirements, advanced IFR procedures, and the challenges of flight operations near thunderstorms. The course also covers the use of weather detection devices, ensuring pilots are equipped to navigate challenging weather conditions. Through practical applications and in-depth study, participants will enhance their proficiency in managing complex IFR scenarios.
Total Credits:	3
Hours/Week:	3
Total Hours:	45
Prerequisites:	AVT258
Corequisites:	There are no co-requisites for this course.
This course is a pre-requisite for:	AVT370, AVT371, AVT377
Vocational Learning Outcomes (VLO's) addressed in this course:	4061 - AVIATION TECHNOLOGY VLO 1 Aviation Technology - Flight
<small>Please refer to program web page for a complete listing of program outcomes where applicable.</small>	
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 3 Execute mathematical operations accurately. 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.



	EES 11 Take responsibility for ones own actions, decisions, and consequences.
Course Evaluation:	<p>Passing Grade: 70%, B</p> <p>A minimum program GPA of 2.0 or higher where program specific standards exist is required for graduation.</p>
Other Course Evaluation & Assessment Requirements:	<p>Evaluation Considerations:</p> <p>Students will be assessed by a combination of attendance and department, quizzes, tests, and a final exam.</p> <p>Dates of tests will be announced at least 1 week in advance.</p> <p>Quizzes will be given without prior notice.</p> <p>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.</p> <p>Attendance:</p> <p>Attendance is mandatory for courses which appear on the student`s formal Ground School Record required by Transport Canada.</p> <p>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.</p> <p>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.</p> <p>Classroom Conduct:</p> <p>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.</p> <p>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.</p> <p>Student Support and Students at Risk:</p> <p>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.</p> <p>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.</p>

Books and Required Resources:

Instrument Procedures Manual by David Holland
 Publisher: Aviation Publishers Co. Limited Edition: 5th Edition
 ISBN: 978-0-9730036-9-7

Aeronautical Information Manual
 Downloadable from Transport Canada's web site

Canada Air Pilot - CAP 4
 Available by subscription from Nav Canada or electronic format from other suppliers - see Nav Canada website for list of providers

Canada Flight Supplement
 Available by subscription from Nav Canada or electronic format from other suppliers - see Nav Canada website for list of providers

Course Outcomes and Learning Objectives:

Course Outcome 1	Learning Objectives for Course Outcome 1
Depart, navigate enroute, hold, approach, and execute a missed approach-all seamlessly utilizing instrument flight rules.	This course covers essential IFR procedures, including departure protocols like taxi, clearances, and takeoff criteria, enroute operations such as position reporting, altitude management, and clearances, and holding procedures, including various hold types and entry techniques. It also explores arrival procedures, focusing on descents, standard arrivals, and approach clearances, as well as missed approach procedures, including missed approach points, holds, and alternate airports.
Course Outcome 2	Learning Objectives for Course Outcome 2
Demonstrate proficiency in executing advanced IFR procedures for complex flight scenarios.	By the end of this course, students will be able to apply RVO/LVO standards, commercial take-off minima, take-off alternate requirements, and noise abatement procedures in advanced IFR operations.
Course Outcome 3	Learning Objectives for Course Outcome 3
Develop expertise in advanced IFR flight planning to optimize safety and efficiency in complex airspace environments.	By the end of this course, students will be able to apply ATC special procedures for high-level operations, navigate Canadian domestic routes, and ensure compliance with aircraft approval and system requirements in advanced IFR flight planning.
Course Outcome 4	Learning Objectives for Course Outcome 4
Develop the expertise to navigate and manage flight operations safely in the vicinity of thunderstorms.	By the end of this course, students will be able to analyze and respond to microbursts, low-level wind shear, and wake turbulence, ensuring safe flight operations near thunderstorms.
Course Outcome 5	Learning Objectives for Course Outcome 5
Effectively utilize weather detection devices to enhance flight safety and decision-making in various IFR conditions.	By the end of this course, students will be able to proficiently interpret stormscope data, weather radar, and radar displays, including understanding attenuation, to make informed decisions during IFR operations.



Evaluation Process and Grading System:

Evaluation Type	Evaluation Weight
Final Exam	40%
Midterm Exam	30%
Quizzes	30%

Date:

August 20, 2025

Addendum:

Please refer to the course outline addendum on the Learning Management System for further information.

