



COURSE OUTLINE: ATQ112 - NAV & WTHR FNDMNTLS

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Approved: Greg Farish - Dean

Course Code: Title	ATQ112: NAVIGATION AND WEATHER FUNDAMENTALS
Program Number: Name	4061: AVIATION TECHNOLOGY 4161: AVIATION TECHNIQUES
Department:	AVIATION TECHNOLOGY
Academic Year:	2025-2026
Course Description:	This course will introduce the principles of aeronautical navigation and equip individuals with the skills to interpret aviation weather reports, forecasts, and associated symbols. It's designed for those aspiring to careers in aviation and the air transportation system.
Total Credits:	3
Hours/Week:	2
Total Hours:	30
Prerequisites:	There are no pre-requisites for this course.
Corequisites:	There are no co-requisites for this course.
This course is a pre-requisite for:	AFT120, AVF111, AVF122
Vocational Learning Outcomes (VLO's) addressed in this course:	4161 - AVIATION TECHNIQUES
Please refer to program web page for a complete listing of program outcomes where applicable.	VLO 2 Perform basic techniques and standard practices used in aviation in order to increase skill level to enter next phase of learning and practice about aviation flight and industry.
	VLO 8 Develop effective learning and study skills to support success in the current program of study and advancement into subsequent, higher level, studies in Aviation.
Essential Employability Skills (EES) addressed in this course:	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.
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.

Books and Required Resources:

From The Ground Up
Publisher: Aviation Publishers Co. Ltd. Edition: 29th or higher
ISBN: 987-0-9730036-3-5

Chart
AIR5001 Sault Ste Marie VNC (VFR Navigation Chart)

Plotting Instruments
Douglas Protractor, ICAO ruler, flight computer

Royal Canadian Air Force Weather Manual by 1 Canadian Air Division
Publisher: 17 Wint Publishing Office
ISBN: 987-0-660-20260-0
Library and Archives Canada Cataloguing in Publication



Course Outcomes and Learning Objectives:

Course Outcome 1	Learning Objectives for Course Outcome 1
Apply basic navigation concepts.	By the end of this course, students will have a solid understanding of basic navigation concepts, including the velocity equation, latitude and longitude, directional orientation, measuring and plotting tracks, and accurately interpreting the VFR Navigation Chart.
Course Outcome 2	Learning Objectives for Course Outcome 2
Applying dead reckoning techniques.	By the end of this course, students will be proficient in applying dead reckoning techniques for effective navigation.
Course Outcome 3	Learning Objectives for Course Outcome 3
Interpret and apply aviation weather reports and forecasts.	By the end of this course, students will be able to accurately interpret and apply aviation reports and forecasts to enhance flight planning and operational decision-making.

Evaluation Process and Grading System:

Evaluation Type	Evaluation Weight
Meteorology section test	30%
Navigation section test	30%
Quizzes	40%

Date:

August 20, 2025

Addendum:

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

