



COURSE OUTLINE: ATQ112 - NAV & WTHR FNDMNTLS

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Approved: Greg Farish, Chair, Aviation Technology - Flight

Course Code: Title	ATQ112: NAVIGATION AND WEATHER FUNDAMENTALS
Program Number: Name	4061: AVIATION TECHNOLOGY 4161: AVIATION TECHNIQUES
Department:	CONTROL - SAULT
Academic Year:	2023-2024
Course Description:	This course will introduce the principles of aeronautical navigation and weather fundamentals to individuals who are interested in 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 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:	This course is in two sections, Weather and Navigation, so there will be a test at the end of each section, and short quizzes during those sections. The student will be assessed by a combination of attendance, quizzes, and tests. A minimum grade of B must be achieved. If the minimum grade is not achieved, the course must be repeated in accordance with the Aviation Standard Operating Procedures. Unexcused absences will result in 2% deduction of the final mark for each occurrence, arriving



for class late will result in a 1% deduction of the final mark for each occurrence. In order to be excused from class due to illness or other unforeseen circumstance, students must contact the professor, usually by email or via Teams, prior to the start of class. A voicemail may also be left at extension 2666.

Quizzes may 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-ups will not be permitted after the fact for compassionate reasons.

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

A classroom code of conduct can be found in the SOP General section, and will be adhered to.

Books and Required Resources:

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

Chart
 Edition: any
 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

Royal Canadian Air Force Weather Workbook

Course Outcomes and Learning Objectives:

Course Outcome 1	Learning Objectives for Course Outcome 1
Basic Navigation Concepts	Velocity equation, Latitude and Longitude, Directions, Measuring tracks, the VFR Navigation Chart,
Course Outcome 2	Learning Objectives for Course Outcome 2
Using Dead Reckoning	how to use Dead Reckoning in navigation
Course Outcome 3	Learning Objectives for Course Outcome 3
The fundamentals of Meteorology	Moisture, heating and cooling of the atmosphere, stability, air pressure, air masses, the structure of fronts, possibly more

Evaluation Process and Grading System:

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



Date: June 16, 2023

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