

**SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY
SAULT STE. MARIE, ONTARIO**



Sault College

COURSE OUTLINE

COURSE TITLE: Navigation 4
CODE NO. : AVT252-1
PROGRAM: Aviation Technology (Flight)
AUTHOR: Louis St Pierre
DATE: Dec 2008
SEMESTER: Five
PREVIOUS OUTLINE DATED: Dec 2007

APPROVED:

“B. Punch”

DATE

CHAIR

TOTAL CREDITS: 1
PREREQUISITE(S): AVT242
HOUR/WEEK: 1

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For additional information, please contact Brian Punch, Chair Natural Environment/Outdoor Studies & Technology Programs
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I. COURSE DESCRIPTION:

This course explores the remainder of the radio navigation aids not covered in AVT242, and puts to practice radio navigation as well as dead reckoning skills in preparation for writing the Transport Canada Commercial Written Exam (CPAER).

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course, the student will demonstrate the ability to:

1. use Radio Navigation aids

Potential Elements of the Performance:

position fixes, identify position using cross bearings, identify waypoints and intersections, intercepting tracks and airways

2. understand the basic workings of navigation aids not covered in semester 4

Potential Elements of the Performance:

Loran-C, INS, Radar, Transponder

3. apply dead reckoning and radio navigation

Potential Elements of the Performance:

review of basic dead reckoning navigation, calculate time and distance using bearing changes, sun's true bearing, reciprocal track, radio reception range

4. show that the student has the knowledge required to pass the navigation section of the Transport Canada Written Exam (CPAER)

Potential Elements of the Performance:

final preparation for the Sault College Qualification exam and the Transport Canada exam

III. TOPICS:

1. Radio Navigation
2. Other nav aids
3. Dead reckoning navigation
4. The Transport Canada Commercial Pilot Written Exam

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

From the Ground UP

Aeronautical Information Publication (AIP)

LO charts

VNC charts

Canada Flight Supplement

V. EVALUATION PROCESS/GRADING SYSTEM:

The student will be assessed by a combination of attendance and deportment, quizzes, tests and a final exam. Weighting of each will be as follows: 20% for quizzes, 30% for all tests prior to the final exam and 50% for the final exam. A minimum mark of 70% is required to pass the course. If practicable, the navigation section of the Commercial Qualification exam will be used as the final exam. Make-up tests are not permitted except in accordance with section VI of this outline.

- 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, and violations of the dress code will result in a 1% deduction of the final mark for each occurrence. Refer to the SOP GEN 1.3 for dress code policies and SOP GEN 1.6.7 for policy regarding absence from classes
- Quizzes will be given without prior notice.
- If it is necessary to write a second final exam in order to pass the course, the highest grade achievable will be a "C". (See make-up policy in section VI)
- 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.**
- **"F" grades in any subject at the end of a semester will result in termination from the Aviation program.**
- Dates of tests will be announced at least 1 week in advance.

The following semester grades will be assigned to students in this course:

<u>Grade</u>	<u>Definition</u>	<u>Grade Point Equivalent</u>
A+	90 -100%	4.00
A	80 - 89%	3.00
B	70 - 79%	2.00
C	assigned if a make-up exam was required to complete the course	0.00
F (Fail)	below 70%	0.00
X	A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.	
NR	Grade not reported to Registrar's office.	

VI. SPECIAL NOTES:

Attitude and Conduct

Attitude plays an important role in your ability to exercise good judgement. Although attitude is not being graded, it affects your ability to learn as well as your safety as a student and future as a professional pilot. Students who display a strong tendency towards any of the five hazardous attitudes pose a grave risk to themselves and others. For this reason, students exhibiting one or several hazardous attitudes will be counselled and if necessary, will be put on a behavioural contract. If this is ineffective in modifying unacceptable behaviour, then the student will be withdrawn from the program.

The five hazardous attitudes are identified as Anti-authority, Impulsivity, Invulnerability, Machismo, and Resignation. These hazardous attitudes are described in "Human Factors for Aviation – Basic Handbook" on pages 151 and 152.

Make-up Policy

- No make-ups on tests occurring prior to final exams.
- No make-ups on quizzes.
- If the final grade achieved for this course is less than 70%, a second final exam may be written at the discretion of the professor for this course. The grading system will be modified as follows: the first exam attempt will be weighted at 25% instead of the original 50% of the final mark, and the make-up exam will be weighted at 25% of the final mark. The minimum mark for the course is still 70% or better after the grade has been re-calculated to include the make-up exam.
- If the navigation section of the Qualification Exam is used as the final exam, then the make-up policy for that exam as stated in the SOPs will apply.
- Any student that requires 90% or greater on a make-up exam to pass the course will not be allowed to write a make-up exam.
- In the event that a second final exam is required, the highest achievable overall grade for this course will be a C

Disability Services:

If you are a student with a disability (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your professor and/or the Disability Services office. Visit Room E1101 or call Extension 2703 so that support services can be arranged for you.

Retention of Course Outlines:

It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other postsecondary institutions.

Communication:

The College considers **WebCT/LMS** as the primary channel of communication for each course. Regularly checking this software platform is critical as it will keep you directly connected with faculty and current course information. Success in this course may be directly related to your willingness to take advantage of the **Learning Management System** communication tool.

Plagiarism:

Students should refer to the definition of “academic dishonesty” in *Student Code of Conduct*. Students who engage in academic dishonesty will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course/program, as may be decided by the professor/dean. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Course Outline Amendments:

The professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Substitute course information is available in the Registrar's office.

VII. PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advance credit transfer (advanced standing) should obtain an Application for Advance Credit from the program coordinator (or the course coordinator regarding a general education transfer request) or academic assistant. Students will be required to provide an unofficial transcript and course outline related to the course in question.

Credit for prior learning will also be given upon successful completion of a challenge exam or portfolio.