

**SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY**

**SAULT STE. MARIE, ON**

**COURSE OUTLINE**

COURSE TITLE: Aeronautics

CODE NO.: AVT110

SEMESTER: 3

PROGRAM: Aviation

AUTHOR: \_\_\_\_\_

DATE: May 26, 1995

PREVIOUS OUTLINE DATED: \_\_\_\_\_

APPROVED: \_\_\_\_\_

DEAN

*[Handwritten Signature]*

DATE

95-08-06

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TOTAL CREDITS 6

PREREQUISITE(S):

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**I. PHILOSOPHY/GOALS:** This course will allow the student to utilize the theoretical knowledge gained in the first two semesters as they apply to practical flight situations during the flying training. In addition, material from the first two semesters will be reviewed and reinforced in order to prepare the student for the Sault College Private Pilot Exam and (for those unlicensed students), the Transport Canada Private Pilot Exam.

**II. STUDENT PERFORMANCE OBJECTIVES (OUTCOMES):**

Upon successful completion of this course the student will:

- 1) Be able to understand the application of knowledge for operation of aircraft in the exercises specified by Transport Canada.
- 2) Attain the required knowledge necessary to be able to achieve a 70% mark in the four major areas of study (Air Law, Aeronautics, Meteorology, and Navigation - in addition to a 70% overall mark). (See Transport Canada Study and Reference Guide [TP5717E - Aug. '94. Every student whether licenced or not shall complete and pass the College Private Pilot Exam, whereas those students who presently do not hold an existing licence shall additionally complete and pass the Transport Canada Private Pilot Exam.)
- 3) Upon successful completion of this course and AVT 105, the student shall be admitted to fourth semester of this program.

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### III. TOPICS TO BE COVERED:

Phase I: These topics are further broken down as per the Transport Canada Guide: Study and Reference Material for Private and Commercial Licence TP5717E.

1. Air Law
2. Aeronautics
3. Meteorology
4. Navigation

Phase II: These topics are related to specific exercises which will be executed as in flight sequence during the flying training portion of this semester.

1. Aircraft Familiarization
2. Checklists and Preparation for Flight
3. Ancillary Controls
4. Taxiing
5. Attitudes and Movements
6. Straight and Level Flight
7. Climbing
8. Descending
9. Turns and Steep Turns
10. Range and Endurance
11. Slow Flight
12. Stalls
13. Spins
14. Spirals
15. Sideslipping
16. Takeoffs
17. The Circuit
18. Landings
19. First Solo
20. Illusions Created By Drift
21. Precautionary Landings
22. Forced Approaches
23. Navigation
24. Instrument Flying

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#### IV. LEARNING ACTIVITIES/REQUIRED RESOURCES

##### Learning Activities:

- Phase I      The Learning Activities have been blocked in related topic areas. Classroom review periods will enable the students to perform as interactive groups to reinforce and ensure understanding of each topic area. (These topic areas are specified in the Transport Canada Study and Reference Guide TP5717E)
- Phase II      Structured classroom presentations regarding practical utilization of knowledge as it applies to aircraft application and operational considerations. Each topic will be presented and discussed in order to allow the student to define solutions to problems and appreciate the safety implications of various flight operations.

#### V. EVALUATION METHODS:

- Phase I -      One major exam (Sault College Private Pilot Exam - minimum mark 70% - 17 of 25 questions in each of the 4 topic areas must be answered correctly - Air Law, Aeronautics, Meteorology, and Navigation.) The exam will be a time limited, multiple choice examination.

##### Rewrite Policy (Semester 3)

A student, who fails to obtain a mark of 70% (but not less than 60%) on the Aviation exam, will be allowed to attempt a rewrite exam subject to the approval of the instructor. This approval will be based, in part, upon the individual's character, attitude, and attendance. A mark not less than 80% must be achieved on the rewrite within a specified time limit similar to those imposed by Transport Canada for rewrites.

Failure to obtain the specified minimum passing grade, the student shall be involuntarily withdrawn from the Program.

- Phase II -      Quizzes on the material covered during the preparatory Ground School exercises (1-24). No rewrite opportunities exist for quizzes.

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**V. EVALUATION METHODS:** (continued)

Quizzes will entail:

- 1) Aircraft
- 2) Pre Solo Exercises
- 3) Advanced Exercises

In addition, for licencing purposes Transport Canada Pre-solo tests shall be completed, including a radio licence test but shall not be included in the final mark for AVT110.

Phase I College Private Pilot Exam will account for 70% of the final mark and be subject to the requirements outlined above.

Phase II Each quiz will account for 10% of term mark (3 quizzes: 30%) and will be combined with the mark obtained in Phase I.

Grading Scheme

A+	93% or >
A	87 - 92
B	80 - 86
C	70 - 79
R	< 70

Final & Quizzes: will be announced about one week in advance.

Attendance: Mandatory unless specific arrangements have been made and approved by the instructor.

**VI. PRIOR LEARNING ASSESSMENT:**

Students who wish to apply for advanced credit in the course should consult the instructor. Credit for prior learning will be given upon successful completion of the following:

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**VII. REQUIRED STUDENT RESOURCES**

- . Instructor's handouts, guidance, and material covered in class.
- . Video and slide presentations
- . FRASCA Simulators
- . Canada Flight Supplement
- . Pilot Operating Handbook
- . Aviation Maps - AIR 5000 and AIR 5001
- . Navigation equipment
- . Airman's Information Publication
- . "From the Ground Up" Text
- . Transport Canada Flight Training Manual (T52-14/1994E)
- . Sample examination for Private Pilot Licence (Aug. '94 - TP2894)
- . Study and Reference Guide Private Licence (Aug. '94 - TP5717E)

**VIII. ADDITIONAL RESOURCE MATERIALS AVAILABLE IN THE COLLEGE LIBRARY:**

**IX. SPECIAL NOTES**

1. Classes and reviews will be scheduled depending on weather; phone advisory information will announce specific times; exams will be scheduled and posted on the bulletin board.
2. Students with special needs (eg. physical limitations, visual impairments, hearing impairments, learning disabilities) are encouraged to discuss required accommodations confidentially with the instructor.
3. Your instructor reserves the right to modify the course as he/she deems necessary to meet the needs of students.

**X. COURSE ANALYSIS SHEET (see attached)**