

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



**SAULT
COLLEGE**

COURSE OUTLINE

COURSE TITLE: Instruments and Operations

CODE NO. : AVT117 **SEMESTER: 1**

PROGRAM: Aviation Technology (Flight)

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WebCT/LMS

DATE: 09, 01, 10 **PREVIOUS OUTLINE DATED:** 09,01,09

APPROVED: "B.Punch"

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|-------------------------|--------------|-------------|
| | CHAIR | DATE |
| TOTAL CREDITS: | 1 | |
| PREREQUISITE(S): | N/A | |
| HOURS/WEEK: | 1 | |

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

An introductory course on the working of traditional flight instruments and instrument systems with the emphasis on safety in both handling and recognizing abnormal conditions.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. Appreciate the workings and the limitations of traditional aircraft instrumentation
2. Appreciate the need to stay current with the Canadian Air Regulations with regard to regular inspections of aircraft systems with regard to both VFR and IFR procedures.
3. Demonstrate an ability to make performance calculations with regard to various operating conditions.
4. Appreciate the need to develop proper airmanship skills in an all weather environment, in and around controlled and uncontrolled airports and airspace and in close proximity to other aircraft.
5. Understand all the human factors associated with aviation related physiological conditions, their consequences for the safe piloting of aircraft, and Transport Canada's own aeromedical recommendations for pilots in regard to avoiding and dealing with these critical physiological conditions.

III. TOPICS:

1. Mechanical operation of pitot static instruments and systems.
2. Mechanical operation of gyroscopic instruments and systems
3. Errors due to the operation of the instruments and the need to correct the errors for safety considerations
4. Cover typical light aircraft flight performance charts and their application to all performance operations with emphasis on safety and proper airmanship skills

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

- From The Ground Up
- Handouts
- Power Point through WebCT/LMS

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: 30% for quizzes, 30% for all tests prior to the final exam and 40% for the final exam. A minimum mark of 70% is required to pass the course. 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.**
- Although attitude, co-operation, etc., are not graded, students may be terminated based on their performance in this area (see section VI). These attributes are also considered in the selection of the Air Canada Award and other scholarships.
- 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.

The following semester grades will be assigned to students:

| Grade | <u>Definition</u> | <i>Grade Point Equivalent</i> |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| A+ | 90 – 100% | 4.00 |
| A | 80 – 89% | 3.00 |
| B | 70 - 79% | 2.00 |
| C | 60 - 69% | 1.00 |
| D | 50 – 59% | 0.00 |
| F (Fail) | 49% and below | |
| CR (Credit) | Credit for diploma requirements has been awarded. | |
| S | Satisfactory achievement in field /clinical placement or non-graded subject area. | |
| U | Unsatisfactory achievement in field/clinical placement or non-graded subject area. | |
| 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. | |
| W | Student has withdrawn from the course without academic penalty. | |

VI. SPECIAL NOTES:

Attendance:

Sault College is committed to student success. There is a direct correlation between academic performance and class attendance; therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session.

VII. COURSE OUTLINE ADDENDUM:

The provisions contained in the addendum located on the portal form part of this course outline.