

**SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY  
SAULT STE MARIE, ON**



**COURSE OUTLINE**

Course Title: Aircraft Systems

Code No.: AVT 270

Semester: SIX (6)

Program: AVIATION TECHNOLOGY (FLIGHT)

Author: EARL TURNER

Date: JANUARY 1998

Previous Outline Date: JUNE 1986

Approved:

K. DeRosario  
Dean

Dec. 22/98  
Date

Total Credits: 2

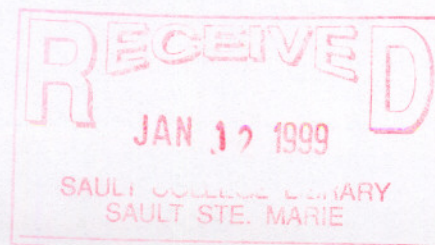
Prerequisite(s): AVT 200

Length of Course: 16 weeks Total Credit Hours: 48 periods

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*For additional information, please contact Kitty DeRosario, Dean, School of Trades & Technology, (705) 759-2554, Ext. 642.*



COURSE NAME AIRCRAFT SYSTEMS  
 COURSE NUMBER AVT 270

**I. COURSE DESCRIPTION:**

A study of electrical, hydraulic, fuel, oil, oxygen, and firefighting systems in the aircraft used for multi-engine training as well as in a modern, turbine, pressurized transport aircraft.

**II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:**

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

- 1) be knowledgeable about the systems, performance and procedures necessary to fly the aircraft used for multi-engine training (the Piper PA44)

Potential Elements of the Performance:

engine & propeller operation  
systems operation  
normal & emergency procedures  
performance calculations  
servicing requirements  
good flying practices

- 2) be knowledgeable about the systems of a typical pressurized multi-engine turbine aircraft (the Beech King Air)

Potential Elements of the Performance:

engine & propeller operation  
systems operation  
normal & emergency procedures  
performance calculations  
servicing requirements

COURSE NAME **AIRCRAFT SYSTEMS**

COURSE NUMBER **AVT 270**

**III. TOPICS:**

**PA44**

- Introduction - Airport visit
- General Information
- Limitations
- Description and Operation of the Airplane and Its Systems
- Normal Procedures
- Emergency Procedures
- Performance
- Weight and Balance
- Airplane Handling, Servicing and Maintenance
- Supplements

**King Air**

Self Paced Commuter Study Program

**IV. REQUIRED RESOURCES/TEXTS/MATERIALS:**

- 1) Piper Seminole (PA44) Information Manual
- 2) Access to Computer Program for King Air.

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## V. EVALUATION PROCESS/GRADING SYSTEM

The student will be assessed by tests. The mid-term exam will be PA44 systems. The final exam will be King Air systems. Weighting of each test will be 50 % for all tests prior to the final and 50 % for the final exam.

### GRADE:

A+ - 93 - 100%  
A - 87 - 92%  
B - 80 - 86%  
C - 70 - 79%  
R - Below 70%

- 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. **Rewrites will not be permitted after the fact for compassionate reasons.**

- **"R" grades in any subject at the end of a semester will result in termination from the program. Re-writes in aviation subjects are not permitted except as provided in the re-write policy below.**

- Attendance is mandatory for all Aviation classes unless approval is granted in advance.

- Although attitude, co-operation, etc., are not graded, students may be terminated based on their performance in this area. 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.

### RE-WRITE POLICY

- No re-writes on mid-term tests.

- The final exam of AVT 270 may be re-written in the event of a failure provided the semester average is 70% or greater and the failed final exam is within 5% of a pass. (i.e. 65% or above). The re-written final exam will be averaged with the failed final exam to determine the resulting mark which must be 70% or above to pass.

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## **VI. SPECIAL NOTES:**

### Special Needs

If you are a student with special needs (eg. physical limitations, visual impairments, hearing impairments, learning disabilities), you are encouraged to discuss required accommodations with the instructor and/or contact the Special Needs Office, Room E1204, Ext. 493, 717, 491 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 post-secondary institutions.

### Disclaimer for Meeting the Needs of the Learners

## **VII. PRIOR LEARNING ASSESSMENT**

There will be no advanced credit given for this course.

