

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ON

COURSE OUTLINE

COURSE TITLE: AERONAUTICS 5

CODE NO.: AVT 205-4 SEMESTER: FIVE (5)

PROGRAM: AVIATION TECHNOLOGY (FLIGHT)

AUTHOR: EARL TURNER / JOE BRUCE

DATE JANUARY 1997 PREVIOUS OUTLINE DATED: JANUARY 1996

APPROVED:


CHAIRPERSON

January 20, 1997
DATE

COURSE NAME: AERONAUTICS 5

CODE NO.: AVT 205-4

PREREQUISITE(S): Will hold a Private Pilot Licence with a night endorsement and have satisfactorily completed semester four academics.

I. PHILOSOPHY / GOALS: To teach the theory and practice of Aviation Technology, with emphasis in study and the completion of the Commercial Pilot Licence Standard and attaining a grade of 70% or better overall and a 60% pass of all segments of the D.O.T. written Commercial Pilot Examination.

II. STUDENT PERFORMANCE OBJECTIVES:

Upon successful completion of this course the student will:

- 1) have completed all D.O.T. written requirements toward the CPL as per the Study and Reference Guide, TP12881E.
- 2) meet the academic prerequisites for Semester 6.

III. TOPICS TO BE COVERED:

16 weeks - 4 periods per week

16 periods Navigation
16 periods Meteorology
16 periods Air Law
16 periods Aeronautics General Knowledge

TOTAL 64 Periods

IV. LEARNING ACTIVITIES

NAVIGATION

METEOROLOGY

AIR LAW

AERONAUTICS GENERAL KNOWLEDGE

REQUIRED RESOURCES

From the Ground Up -

A. F. MacDonald
Study and Reference Guide
for Commercial Pilots
TP12881E -

Transport Canada
Aeronautical Information
Publication (AIP) Canada
Flying Training Manual -
Transport Canada
Canada Flight Supplement
GPH 205 - Transport
Canada

Charts-WAC F21
VNC Air 5001
LO Charts (Handouts)
Approach Charts
(Handouts)

Pilots Operating Handbook
Zlin Z242L
(Ground school copy)

Air Command Weather Manual
(TP9352E)

The Advanced Pilot's Flight Manual
- W.K. Kershner

NAVIGATION

<u>TOPIC NO.</u>	<u>SUGGESTED PERIODS</u>	<u>TOPIC DESCRIPTION</u>	<u>REFERENCE</u>
1	2	VOR Holds & Approaches	A.I.P. Canada S.C. Handouts
2	2	ADF Holds & Approaches	A.I.P. Canada S.C. Handouts
3	3	ILS Approach	A.I.P. Canada S.C. Handouts
TEST	1	Navigation topics covered to date.	
REVIEW	1	Test review.	
4	2	Cross Country Using LO Charts and Interpretation of LO Charts	LO Charts (handouts) CFS.
5	1	Cross Country Using WAC Charts and Interpretation of WAC Charts	WAC Chart F21 CFS.
6	1	The Flight Supplement	CFS.
REVIEW	1	Review of the Commercial Exam Format	
FINAL EXAM	1	Commercial Qualification Exam - Navigation Section	
REVIEW	1	Review of Final Exam in preparation for D.O.T. Exam	

METEOROLOGY

<u>TOPIC NO.</u>	<u>SUGGESTED PERIODS</u>	<u>TOPIC DESCRIPTION</u>	<u>REFERENCE</u>
1	3	Weather Observations Reports, Forecasts and Maps	
EXERCISE	2	Maps, Forecasts	
TEST	1	Meteorology topics covered to date.	
REVIEW	1	Test review.	
2	2	The Upper Troposphere and Lower Stratosphere	Air Command Weather Manual TP9352E
3	2	Weather in North America	
4	2	Weather for Light Aircraft	
REVIEW	1	Review of the Commercial Exam Format	
FINAL EXAM	1	Commercial Qualification Exam - Meteorology Section	
REVIEW	1	Review of Final Exam in preparation for D.O.T. Exam	

AIR LAW

<u>TOPIC NO.</u>	<u>SUGGESTED PERIODS</u>	<u>TOPIC DESCRIPTION</u>	<u>REFERENCE</u>
1	4	Review of CARs 1 - 6	
2	3	CARs Section 7	
TEST	1	Air Law topics covered to date.	
REVIEW	1	Test review.	
3	1	Air Traffic Services & Procedures	
4	3	General CARs Review	
REVIEW	1	Review of the Commercial Exam Format	
FINAL EXAM	1	Commercial Qualification Exam - Air Law Section	
REVIEW	1	Review of Final Exam in preparation for D.O.T. Exam	
MIDTERM TEST	1	Air Law topics covered to date	
FINAL EXAM	1	Commercial Qualification Exam Air Law Section	

AERONAUTICS GENERAL KNOWLEDGE

<u>TOPIC NO.</u>	<u>SUGGESTED PERIODS</u>	<u>TOPIC DESCRIPTION</u>	<u>REFERENCE</u>
1	2	Weight and Balance for Commercial Navigation	
2	1	Aircraft Performance Charts	FGU - Air Navigation S.C. Handouts
3	4	The take-off, climb, cruise, descent and landing	
TEST	1	General Knowledge topics covered to date.	
REVIEW	1	Test review.	
4	2	Theory of Flight: Atmosphere, Pressure and Airports Lift, Drag, Thrust and Weight Forces acting on an airplane during flight Airspeed limitations Propellers and the Wing Practical application of Aerodynamics to flight	FGU - Theory of Flight Advanced Pilot Flight Manual - Kershner
5	2	Aircraft instrumentation	FGU - Instruments
REVIEW	1	Review of the Commercial Exam Format	
FINAL EXAM	1	Commercial Qualification Exam - Aeronautics General Knowledge Section	
REVIEW	1	Review of Final Exam in preparation for D.O.T. Exam	

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V. EVALUATION METHODS:

The student will be assessed by tests following the delivery of each topic. The final exam for each topic will be the appropriate section of the Commercial Qualification exam. Weighting of each test within a topic will be 50% for all tests prior to the final and 50% for the final exam. Each topic is then averaged together for the overall mark for final semester grade.

GRADE:

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

- To be recommended to write the D.O.T. Commercial Written Exam, the Sault College Commercial Qualification Exam must be passed with a minimum of 70% overall and 70% in each of the four segments. An "R" grade will be awarded for AVT in the event of a failure regardless of the resulting overall average.

- D.O.T. Commercial Written Exam is not included in college grades although a minimum of 70% as well as a pass of all segments is required to continue on course. An "R" grade will be awarded in the event that this requirement is not met.

- 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 except as provided in the re-write policy below.

- "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.
- An individual section of the Sault College Commercial Qualification Exam may be re-written in the event of a failure provided the overall semester average is 70% or greater and the failed section is within 5% of a pass. (ie. 65% or above) If more than one section is failed, re-writes will not be permitted. The re-written section will be averaged with the failed section to determine the resulting mark which must be 70% or above to pass. If the delay in obtaining a recommendation for the D.O.T. Commercial Written Exam results in the student not writing with the remainder of the class, then the student must make his/her own arrangements to write the D.O.T. Commercial Written Exam within the time limit specified by the instructor.
- No re-writes on the D.O.T. Commercial Written Exam.

VI. REQUIRED STUDENT RESOURCES

As per book list.

VII. ADDITIONAL RESOURCE MATERIALS AVAILABLE IN THE COLLEGE LIBRARY:

Book Section - Various

Periodical Section - Various

Audiovisual Section - Various

VIII. SPECIAL NOTES

Students with special needs (e.g. Physical limitations, visual impairments, hearing impairments, learning disabilities) are encouraged to discuss required accommodations confidentially with the instructor.

Your instructor reserves the right to modify the course as he/she deems necessary to meet the needs of students.