

#257

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ON

COURSE OUTLINE

COURSE TITLE: INTRODUCTION TO FLIGHT

CODE NO.: FLT100-4 SEMESTER: 1

PROGRAM: AVIATION TECHNOLOGY

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DATE: SEPT. 1990

PREVIOUS OUTLINE DATED:

APPROVED:

B. Govett
DEAN

9/10/90
DATE

INTRODUCTION TO FLIGHT

FLT100 - 4

COURSE NAME

CODE NO.

TOTAL CREDIT HOURS _____

PREREQUISITE(S): AVIATION ENTRANCE REQUIREMENTS

I. PHILOSOPHY/GOALS: Aeronautics is a very complex course of study, consisting of a number of subjects within the overall definition. The course has therefore been divided into separate blocks of instruction with course outlines for each block.

To provide the student with a basic knowledge of aeronautics in preparation for the Aviation Technology (Flight) Program.

II. STUDENT PERFORMANCE OBJECTIVES:

Upon successful completion of this course the student will:

- 1) be accepted into second semester Aviation AVT100-5
- 2) _____
- 3) _____
- 4) _____

III. TOPICS TO BE COVERED:

BLOCK	PERIODS	BLOCK DESCRIPTION
1	13	Navigation
2	13	Meteorology
3	5	Theory of Flight
4	13	Air Regulations
5	4	Airframes & Engines

IV. LEARNING ACTIVITIES
NAVIGATION

REQUIRED RESOURCES

Types of Navigation
Latitude and Longitude
Time and Longitude

FGU P104-106

Earths Magnetism

FGU P106-111

Units of Distance and Speed
Formula and Transposition of
Formula
DR Navigation

FGU P112

Aeronautical Charts
- Lambert Conformai
- Mercator Projection
- Transverse Mercator
- Oblique Mercator
Types of Canadian Charts
Basic Chart Information

FGU P112-117

MID-TERM TEST - NAVIGATION & THEORY OF FLIGHT

Plotting Instruments
- Douglas Protractor
- Ruler
- Map Air 5001 Sault Ste. Marie
- Triangle of Velocities

FGU P117-118

Preparation of a Map for Flight
- Ten Degree Drift Lines
- Ten Nautical Mile Markers
- Double Drift
- Opening and Closing
- Snap Correction

FGU P118-121

Navigation Problems
- Discuss - Circular Slid Rule
 - Radius of Action
 - Point of No Return
 - Air Position
 - Ground Position

FGU P121-131

TEST

METEOROLOGY

PHILOSOPHY\GOALS: The objective of this course is to provide students with a basic knowledge of meteorology as it pertains to aviation, with emphasis in study toward flight training and the Private Pilot License.

LEARNING ACTIVITIES	RESOURCES REQUIRED
The Atmosphere, Clouds	FGU P70-73
Pressure & Winds	FGU P73-78
Humidity, Temperature & Stability	FGU P78-81
Air Masses & Fronts	FGU P81-86
MID-TERM EXAM	
Clouds, Precipitation & Fog	FGU P86-89
Thunderstorms, Icing & Turbulence	FGU P89-94
Weather Information & Weather Reports	FGU P96-99
Weather Forecasts	FGU P99-101
FINAL EXAM	

THEORY OF FLIGHT

LEARNING ACTIVITIES	REQUIRED RESOURCES
Forces Acting on an Aeroplane in Flight - Lift Weight Thrust Drag - Lift & Drag Curves	FGU P15-19
Design of the Wing The Axes of an Aeroplane Stability	FGU P19-22 FGU P22-24
Flight Performance a/s Limitations	FGU P24-29
Flight Instruments	FGU P29-38

AERONAUTICAL FACILITIES, RULES & PROCEDURES

PHILOSOPHY/GOALS: The objective of this course is to provide students with a basic knowledge of facilities, rules and procedures, with emphasis on study toward flight training and the Private Pilot License.

LEARNING ACTIVITIES

Aerodromes & Traffic
Procedures

Canadian Airspace System

MID-TERM EXAM

Air Traffic Rules &
Procedures

Radio Communications
Facilities & Procedures

FINAL EXAM

REQUIRED RESOURCES

FGU P132-137

FGU P137-141

FGU P142-148

FGU P149,
P153-163

AIRFRAMES & ENGINES

PHILOSOPHY/GOALS: To expose students to the fundamentals of aircraft

A.F. Design & Construction	FGU P7-14
Aero Engines and the Propeller	FGU P39-43 P57-59 Film
Cooling & Lubrication	FGU P43-45 Film
Fuel Systems	FGU P45-47
The Carburetor & Carb Icing	FGU P47-52 Film
Ignition & Electrics	FGU P55-57

TEST

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V. EVALUATION METHODS: (INCLUDES ASSIGNMENTS, ATTENDANCE REQUIREMENTS, ETC.)

Written tests - Mid-term and final semester.

All blocks of instruction are grouped together. Test results are totalled and reduced to a percentage for mid-term and final marks. Grades will be indicated as follows:

A+	93% - 100%
A	87 - 92
B	80 - 86
C	70 - 79
I	Below 70% (applies only to mid-term)
R	Below 70% (applies to final)

In the event of a failure in the AFT100-4, the highest grade awarded will be a "C". Failure of two or more AFT100 subjects will result in an "I" grade at mid-term or an "R" grade at the end of the semester.

VI. REQUIRED STUDENT RESOURCES

"From the Gound Up"
Chart - Sault Ste. Marie - AIR 5001 - VNC
Douglas Protractor

VII. ADDITIONAL RESOURCE MATERIALS AVAILABLE IN THE COLLEGE LIBRARY:

Book Section (TITLE, PUBLISHER, EDITION, DATE, LIBRARY CALL NUMBER IF APPLICABLE - SEE ATTACHED EXAMPLE)

Periodical Section (MAGAZINES, ARTICLES)

Audiovisual Section (FILMS, FILMSTRIPS, TRANSPARENCIES)

VIII. SPECIAL NOTES

Students with special needs (eg. 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.