

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ON

COURSE OUTLINE



COURSE TITLE: INTRODUCTION TO FLIGHT

CODE NO: AVT 101

SEMESTER: ONE

PROGRAM: AVIATION TECHNOLOGY

AUTHOR: JOE THOMPSON

DATE: SEPTEMBER 1995

PREVIOUS OUTLINE DATED: SEPT. 1993

APPROVED:

L.P. Crockett
Dean, School of Engineering Tech.

95-09-27
Date

COURSE NAME: INTRODUCTION TO FLIGHT

CODE NO. AVT101-4

TOTAL CREDIT HOURS: 64

PREREQUISITE(S): NIL

I. PHILOSOPHY/GOALS:

To introduce students to the many varied facets of aviation knowledge pertaining not only to the requirements of the private pilot but also to indicate what is required to become a professional pilot.

II. STUDENT PERFORMANCE OBJECTIVES:

Upon successful completion of this course the student will:

- a) Be admitted to AVT100/semester two

III. TOPICS TO BE COVERED:

Block

Approximate Times

- a) Navigation
- b) Meteorology
- c) Theory of Flight
- d) Air Law & ATC Procedures

16 weeks - 4 periods per week - 1 topic per period

COURSE NAME: INTRODUCTION TO FLIGHT

CODE NO.: AVT101-4

NAVIGATION

LEARNING OBJECTIVES

Students will investigate, study and understand the principles of:

Materials- Types- Dr- Pilotage Radio, (Celestial, Inertial)

Shape & Form of Earth (TN & MN Pole)

Graticule Latitude & Longitude - Distance- o", o'

Time & Longitude - Clock Positions

Great Circles & Rhumb Lines

Headings & Bearings - Magnetic, True, Relative

Earth's Magnetism

Magnetic Compass - Errors

Variation & Deviation

Sunrise Sunset

Track Lines

Time, Speed, Distance Relationships

Map Projections

VNC Map

Geo Ref

Canada Flight Supplement

Mental Dr. Max Drift, Groundspeed, Revision of ETA.

Basic Navigation

Off Track Corrections

Triangle of Velocities

REQUIRED RESOURCES

1. From the Ground UP:
p.140 - p. 164
2. Air 5001 Sault Ste. Marie,
VNC Map
3. Canada Flight Supplement
4. Navigation Instruments

COURSE NAME: INTRODUCTION TO FLIGHT

CODE NO.: AVT101-4

METEOROLOGY

LEARNING OBJECTIVES

Introduction
Atmosphere
ICAO Standards
Clouds
Pressure Systems
Altimeters
Winds
Humidity, Temp. & Pressure
Air Masses
Fronts and Frontal Weather
Cloud Precipitation and Fog
Thunderstorms, Tornadoes, &
Hurricanes
Stormscopes & Weather Radar
Icing, Turbulence and Operational
Weather Hazards

RESOURCES REQUIRED

From the Ground Up: p.98 - p.129

COURSE NAME: INTRODUCTION TO FLIGHT

CODE NO.: AVT101-4

THEORY OF FLIGHT

LEARNING OUTCOME

REQUIRED RESOURCES

Introduction - Aircraft Categories

From the Ground Up

The 4 forces - the parts of an aircraft

The AIP

Lift and Drag - stalls

The 4 axis of motion - Controls

Drag induced and parasitic

Ground effect

Aircraft design

High lift devices - Boundary layer control

Balance and stability

Thrust, weight, and performance

Adverse Yaw

The climb, descent, and turn

The spin and spirals

Mid term test

Instruments - introduction

The pilot static system

Gyroscopic instruments

review

Final exam

COURSE NAME: INTRODUCTION TO FLIGHT

CODE NO.: AVT101-4

AIR LAW & COMMUNICATIONS

LEARNING OBJECTIVES

Canadian Airspace
Rules of the Air
Aeronautical Rules and Facilities
(Aerodromes)
A.T.C. Rules and Procedures
Radio Theory and Equipment
Radio Facilities
Radio Comm Procedures
Radar and Radar Facilities
Airport Operations
Personnel Licencing and Privileges
Flight Plan and Customs
Flight Restrictions and Military
Day VFR and Night VFR
Aircraft Logs and Documents
ELT, Search and Rescue
Float Ski and Ultralight
Canada Flight Supplement

REQUIRED RESOURCES

From the Ground Up
The AIP

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

- a) Mid term (50%) and a final exam (50%) will be averaged to arrive at a final letter grade.
- b) Tests and exams will be reviewed in class. Students may not retain his/her exam.
- c) Assignments may be considered as part of the term mark. This will be at the discretion of the instructor.

COURSE NAME: INTRODUCTION TO FLIGHT

CODE NO.: AVT101-4

The following percentage-letter grade equivalents will be used:

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

Students may request the deferment of a test for compassionate reasons. NO rewrites will be allowed after the fact for compassionate reasons. Compassionate grounds for deferment will pertain to such matters as:

1. Death of an immediate family member;
2. Recent diagnosis of a serious illness of a family member.

A 3.0 G.P.A. is considered the minimum acceptable, and student progress will be reviewed if below that grade.

"R" grades in any subject at the end of a semester will result in termination from the program. A re-write of any test is a privilege granted at the discretion of the instructor. This decision will be based on your performance, effort, attitude and attendance during the semester. The pass mark on the re-write will be 70%. The best grade you will receive upon passing the re-write will be a "C" grade. A re-write will only be considered if the mark on the test is within 5% of the pass mark of 70%.

Classroom attendance is compulsory. It is the student's responsibility to advise the instructor of any absenteeism. Where possible approval should be requested in advance.

You will be given a full week's notice prior to any test being administered. It is the student's responsibility to advise the instructor in advance if she/he cannot attend a test.

VI. REQUIRED STUDENT RESOURCES

As per book list.

Attendance is mandatory for all Aviation Classes.

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 (Film, Filmstrips, Transparencies)

VIII. SPECIAL NOTES

Students with special needs (eg. physical limitation, 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 the students.