

I. COURSE DESCRIPTION:

This course introduces and explains the proper techniques used in personal shop safety, various hand and power machinery and regulations governing shop operation procedures. An introduction to various types of paperwork associated with aircraft manufacturing and overall as per Transport Canada regulations pertaining to A.M.O.'s. Fire extinguisher types and their usage will be presented and discussed. Basic WHMIS and Human Factors in aviation will be discussed.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

- 1) Identify and discuss shop requirements.

Potential Elements of the Performance:

- define and discuss approved maintenance organizations
- discuss the legal requirements as set forth by Transport Canada to operate an A.M.O.
- identify the management personnel requirements and their responsibilities in an A.M.O.
- describe stores personnel responsibilities in an A.M.O.
- discuss various departments in a stores department and their respective functions
- discuss the other departments in an A.M.O.
- discuss the paperwork involved in stores in accepting, rejecting and movement of parts

- 2) Discuss and demonstrate safely, the operations of various power machinery and hand tool operations.

Potential Elements of the Performance:

- define the safety aspects associated with shop safety
- discuss hand tool operation procedures and safe handling
- identify various shop machinery and operate machinery safely
- define the importance of personal safety and identify the requirements of using safety glasses, safety boots, etc. where appropriate.
- discuss the safety rules that govern a sheet metal shop
- identify hazards in the sheetmetal shops
- identify personnel in charge of shop safety in an A.M.O.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE (Continued)

- 3) List and describe the paperwork requirements found in the maintenance, manufacturing and overhaul of aircraft.

Potential Elements of the Performance:

- identify the paperwork associated with aircraft repair and overhaul
- describe the importance of Maintenance Release Tags
- identify all forms used in aircraft maintenance and their importance
- describe how tracking of serviceable and unserviceable items is accomplished by Records Department in an A.M.O.
- discuss both the Technical Logbook and its sections and the Journey Logbooks and their importance

- 4) Identify the various types of fire extinguishers and their proper application.

Potential Elements of the Performance:

- identify the four most commonly used fire extinguishers found in aircraft facilities
- describe the classes of fire extinguishers as to where its type would be used
- discuss how to use a basic hand held fire extinguisher

- 5) Understand basic WHMIS regulations and understand an employee responsibility as WHMIS pertains to the workplace.

Potential Elements of the Performance:

- understanding what WHMIS stands for
- understanding hazardous materials
- government, industry and labour requirements
- identification of hazardous materials and symbols
- MSDS data sheet requirements

- 6) FOD - Understand the possible damage that will occur to aircraft due to foreign object damage and discuss methods to eliminate F.O.D.

Potential Elements of the Performance:

- identify types of foreign material that will cause damage to an aircraft
- discuss methods of preventing damage
- describe the effects of F.O.D. to aircraft fuselages and systems

- 7) Human Factors in Aviation- Understand the 12 major factors that attribute to poor aircraft maintenance, incidents and accidents. Discuss the safety nets to use to eliminate these 12 factors.

III. TOPICS:

1. Shop Management
2. Personal Shop Safety
3. Fire Extinguishers
4. Foreign Object Damage
5. WHMIS
6. Human Factors

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Handouts supplied by teacher
Aviation Maintenance Technician Handbook FAA-H-8083-30

V. EVALUATION PROCESS/GRADING SYSTEM

Two multiple-choice tests – each test is worth 50% of the final mark.

Notes:

- 1/ Students in the Aircraft Structural Repair Program require a minimum of seventy (70) percent in a course to obtain a passing grade. This equates to a “B” grade.**
- 2/ Course attendance is mandatory. If a student is absent, he/she must have a valid reason – documentation is required. If a student is absent for all of the in-class theory or shop demonstrations for which a test/project is assigned, he/she will not be granted permission to complete the test/project.**
- 3/ If a student misses a test, he/she must have a valid reason – documentation is required. In addition, the instructor must be notified prior to the test, or the student will receive a mark of zero, with no make-up option.**
- 4/ All assignments must be completed. Failure to complete assignments will result in removal of 10% from the test associated with the assignment.**
- 5/ Re-writes for tests, and Repeats for shop projects will not be granted.**

Valid reasons for being absent:

- **Illness – supported by doctor’s note**
- **Family death or serious illness – supported by applicable documents**

<u>Grade</u>	<u>Definition</u>	<u>Grade Point Equivalent</u>
A+	90 - 100%	4.00
A	80 - 89%	4.00
B	70 – 79%	3.00
C	60 – 69%	2.00
D	50 – 59%	1.00
F (Fail)	49% or below	0.00
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:Special Needs:

If you are a student with special needs (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your instructor and/or the Special Needs office. Visit Room E1101 or call Extension 2703 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 postsecondary institutions.

Communication:

The College considers **WebCT/LMS** as the primary channel of communication for each course. Regularly checking this software platform is critical as it will keep you directly connected with faculty and current course information. Success in this course may be directly related to your willingness to take advantage of the **Learning Management System** communication tool.

Plagiarism:

Students should refer to the definition of “academic dishonesty” in *Student Rights and Responsibilities*. Students who engage in “academic dishonesty” will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course/program, as may be decided by the professor/dean. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Course outline amendments:

The Professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Substitute course information is available in the Registrar's office.

VII PRIOR LEARNING ASSESSMENT

Students who wish to apply for advance credit transfer (advanced standing) should obtain an Application for Advance Credit from the program coordinator (or the course coordinator regarding a general education transfer request) or academic assistant. Students will be required to provide an unofficial transcript and course outline related to the course in question.

Credit for prior learning will also be given upon successful completion of a challenge exam or portfolio.

CELL PHONES MUST NOT BE USED IN THE SHOP OR CLASSROOM