

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



Sault College

COURSE OUTLINE

COURSE TITLE: SHOP MANAGEMENT

CODE NO. : ASR100 SEMESTER: 1

PROGRAM: AIRCRAFT STRUCTURAL REPAIR

AUTHOR: PAUL DAVIS

DATE: SEPT. 13 PREVIOUS OUTLINE DATED: SEPT. 12

APPROVED: "C.Kirkwood"

DEAN DATE

TOTAL CREDITS: 2

PREREQUISITE(S): N/A

HOURS (Total): 32

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For additional information, please contact Colin Kirkwood, Dean,
Environment \ Technology \ Business, extension 2688.

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

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.

Note: 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.

<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.

Electronic Devices in the Classroom:

Students who wish to use electronic devices in the classroom will seek permission of the faculty member before proceeding to record instruction. With the exception of issues related to accommodations of disability, the decision to approve or refuse the request is the responsibility of the faculty member. Recorded classroom instruction will be used only for personal use and will not be used for any other purpose. Recorded classroom instruction will be destroyed at the end of the course. To ensure this, the student is required to return all copies of recorded material to the faculty member by the last day of class in the semester. Where the use of an electronic device has been approved, the student agrees that materials recorded are for his/her use only, are not for distribution, and are the sole property of the College.

Attendance:

Sault College is committed to student success. There is a direct correlation between academic performance and class attendance; therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session.

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.

It is the departmental policy that once the classroom door has been closed, the learning process has begun. Late arrivers will not be granted admission to the room.

COURSE NOTE: All assignments must be completed. Failure to complete assignments will result in removal of 10% from the test associated with the assignment.

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.