

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



Sault College

COURSE OUTLINE

COURSE TITLE: NON-DESTRUCTIVE TESTING

CODE NO. : ASR110 **SEMESTER:** 2

PROGRAM: AIRCRAFT STRUCTURAL REPAIR

AUTHOR: Paul Davis

DATE: JAN.14 **PREVIOUS OUTLINE DATED:** JAN. 13

APPROVED: "C.Kirkwood"

Dean **DATE**

TOTAL CREDITS: 2

PREREQUISITE(S):

HOURS (Total): 32

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

COURSE DESCRIPTION:

- I. Extensive research will be accomplished to identify the types of N.D.T. method in use in the aircraft industry. The advantages, disadvantages and procedures used to perform N.D.T. will be discussed. Emphasis on Dye Penetrate, Magnaflux, Visual and Radiographic procedures will be addressed. Various test equipment will be discussed associated with each type of N.D.T. method. Presentations will be administered in class and laboratories.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. Identify the common types of NDT methods used in the aviation industry, describe how each method is performed, discuss the advantages and disadvantages of selecting specific methods and understand the personal safety requirements.

Potential Elements of the Performance:

- identify the various types of N.D.T. methods used in aircraft inspection
- describe the procedures used to perform basic N.D.T. methods
- select the proper type of N.D.T. method to be used
- discuss the advantages and disadvantages of one method Vs other methods
- identify the various equipment associated with N.D.T. methods
- discuss the safety precautions associated with N.D.T. equipment

III. TOPICS:

1. N.D.T. Types
2. Equipment

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Aviation Maintenance Technician Handbook (FAA-H-8083-30)
EA-AC-43-13 Textbook

V. EVALUATION PROCESS/GRADING SYSTEM:

Two multiple-choice test each worth 50% of 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.

The following semester grades will be assigned to students in postsecondary courses:

Grade	Definition	<i>Grade Point Equivalent</i>
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% and 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 professor and/or the Special Needs office.

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/D2L** 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 “**Desire 2 Learn**” 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.

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.