

**SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY**

**SAULT STE. MARIE, ONTARIO**



Sault College

**COURSE OUTLINE**

**COURSE TITLE:** NON-DESTRUCTIVE TSTING

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

**PROGRAM:** AIRCRAFT STRUCTURAL REPAIR

**AUTHOR:** STEVE LACHOWSKY

**DATE:** JAN 04 **PREVIOUS OUTLINE DATED:** DEC 02

**APPROVED:**

|  |             |             |
|--|-------------|-------------|
|  | _____       | _____       |
|  | <b>DEAN</b> | <b>DATE</b> |

**TOTAL CREDITS:** 2

**PREREQUISITE(S):**

**HOURS/WEEK:** 2 HRS/WK

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*For additional information, please contact Colin, Kirkwood, Dean*  
*School of Technology, Skilled Trades & Natural Resources*  
*(705) 759-2554, Ext. 688*

**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, Magnuflux, 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:**

A/C 65-9A Textbook  
EA-AC-43-3 Textbook

## V. EVALUATION PROCESS/GRADING SYSTEM:

**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:

| <b>Grade</b> | <b>Definition</b>  | <i>Grade Point Equivalent</i> |
|--------------|--|-------------------------------|
| A+           | 90 – 100%  | 4.00                          |
| A            | 80 – 89%   | 3.00                          |
| B            | 70 - 79%   | 2.00                          |
| C            | 60 - 69%   | 1.00                          |
| D            | 50 – 59%   | 0.00                          |
| F (Fail)     | 49% and below  |                               |
| 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. Visit Room E1101 or call Extension 493 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.

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 advanced credit in the course should consult the professor. Credit for prior learning will be given upon successful completion of a challenge exam or portfolio.

**VIII. DIRECT CREDIT TRANSFERS:**

Students who wish to apply for direct credit transfer (advanced standing) should obtain a direct credit transfer form from the Dean's secretary. Students will be required to provide a transcript and course outline related to the course in question.