

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY
SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

COURSE TITLE: Drafting

CODE NO. : ARC 110

PROGRAM: Civil Engineering Technician

SEMESTER: I

AUTHOR: S. Ienco

DATE: June 1990

NEW: _____ REVISION: ^x _____

APPROVED: *L P Crolyth* *90/08/28*
CHAIRPERSON DATE

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Total Credit Hours 64

Prerequisite (s) None

I. PHILOSOPHY/GOALS:

This course is designed to familiarize the student in the basics of drafting, to make the student proficient in linework, lettering, accuracy and interpretation of technical drawings.

II. STUDENT PERFORMANCE OBJECTIVES

Upon successful completion of this course, the student will be able to:

1. Identify steps in design.
2. Identify types of drawings.
3. Identify the use of drafting equipment.
4. Learn and apply proper lettering techniques.
5. Identify and construct various geometric constructions.
6. Identify orthographic projections.
7. Draw orthographic projections.
8. Identify pictorial drawings.
9. Draw isometric shapes.
10. Draw oblique shapes in cabinet and cavalier.
11. Draw circular contours in isometric.
12. Identify techniques of dimensioning.
13. Identify sections.
14. Draw sections of various shapes.
15. Identify working drawings.
16. Draw objects of parts on a working drawing.

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17. Identify and become proficient with inking equipment.
18. Make an ink drawing using lettering equipment on different drafting materials.
19. Develop and layout straight and truncated pipes.
20. Develop and layout cones and truncated cones.
21. Develop and layout pyramids and truncated pyramids.

III. TOPIC DESCRIPTION

| TOPIC NO. | TOPIC DESCRIPTION | REFERENCE |
|-----------|---|-----------|
| 1. | <u>Basics</u> <ul style="list-style-type: none">- Design Steps- Drawing- Instruments- Scales- Types of Drawings | |
| 2. | <u>Drawing</u> <ul style="list-style-type: none">- Geometric- Orthographic- Pictorial | |
| 3. | <u>Sections</u> <ul style="list-style-type: none">- Full and Half- Offset, Revolved- Removed Broken Out- Aligned | |
| 4. | <u>Inking</u> <ul style="list-style-type: none">- Types- Equipment- Use of Equipment- Inking Project(s) | |

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|-----------|-------------------|-----------|
|-----------|-------------------|-----------|

| | | |
|----|-----------------------------------|--|
| 5. | <u>Intersections & Layout</u> | |
| | - Pipes | |
| | - Cones | |
| | - Pyramids | |

IV. REQUIRED STUDENTS RESOURCES (including textbooks and workbooks)

FUNDAMENTALS OF ENGINEERING DRAWING

Latest Edition
Luzzader/Duff
Prentice Hall

DRAFTING EQUIPMENT

V. METHOD OF EVALUATION

A final grade will be derived from the results of three tests, and assignments weighed as follows:

| | |
|----------------------------|------------|
| Assignments | 55% |
| Three tests each worth 15% | 45% |
| TOTAL | <hr/> 100% |

The grading system used will be as follows:

| | |
|----|------------|
| A+ | 90% - 100% |
| A | 80% - 89% |
| B | 70% - 79% |
| C | 55% - 69% |
| R | Repeat |

1) Minimum acceptable grade for this course is 60%

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- 2) Each assignment will carry equal weight. late submissions will be penalized with a loss of 20% for the first day late and an additional 10% for each subsequent late day.
- 3) Attendance, lateness and attitude will be considered in assessment.