

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

COURSE OUTLINE: ELECTRICAL/ELECTRONIC DRAFTING  
CODE NO.: ELR 112-3  
PROGRAM: ELECTRICAL/ELECTRONIC TECHNOLOGY  
SEMESTER: ONE  
DATE: SEPTEMBER 1990  
PREVIOUS  
OUTLINE DATED: JANUARY 1990  
AUTHOR: ENO LUDAVICIUS

NEW: \_\_\_\_\_ REV.:  X \_\_\_\_\_

APPROVED:

W. Filipowich  
COORDINATOR

Aug 27/90  
DATE

J.P. Chozyth  
DEAN

90/08/27  
DATE

ELECTRICAL/ELECTRONIC DRAFTING  
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TOTAL CREDIT HOURS: 45

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PREREQUISITE(S): NONE

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**PHILOSOPHY/GOALS:**

TO DEVELOP THE BASIC INDUSTRIAL DRAFTING SKILLS AND COMPETENCIES TO CONSTRUCT DRAWINGS APPLICABLE TO THE ELECTRICAL AND ELECTRONIC INDUSTRY. ALSO TO DEMONSTRATE THE ABILITY TO READ AND INTERPRET THE ONTARIO HYDRO ELECTRICAL SAFETY CODE TO ENSURE THE STUDENT'S UNDERSTANDING OF SAFETY FROM ELECTRICAL HAZARDS.

**STUDENT PERFORMANCE OBJECTIVES:**

1) DRAFTING

UPON SUCCESSFUL COMPLETION OF THIS COURSE, THE STUDENT WILL BE ABLE TO:

- 1.1) DEVELOP AN AWARENESS OF THE USES OF DRAFTING.
- 1.2) DEMONSTRATE CORRECT ELEMENTARY USE OF DRAFTING TOOLS, EQUIPMENT AND SUPPLIES.
- 1.3) DEMONSTRATE THE ABILITY TO MAKE THE CORRECT FORMS OF A PROFESSIONAL LETTERING SYSTEM.
- 1.4) IDENTIFY AND DEMONSTRATE THE USE OF LINES FOR DRAWING CONSTRUCTION AND DRAWING RENDERING.
- 1.5) INTERPRET AND SKETCH TWO-DIMENSIONAL VIEWS FROM THREE-DIMENSIONAL OBJECTS.
- 1.6) CONSTRUCT AND RENDER ORTHOGRAPHIC VIEWS FROM PICTORIAL DRAWINGS.
- 1.7) DEMONSTRATE THE PROPER USE OF DIMENSIONING FUNDAMENTALS IN THE ENGLISH OR METRIC SYSTEMS.

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COURSE NAME

ELR 112 - 3  
CODE NUMBER

---

STUDENT PERFORMANCE OBJECTIVES:

1) DRAFTING

UPON SUCCESSFUL COMPLETION OF THIS COURSE, THE STUDENT  
WILL BE ABLE TO:

- 1.8) DEMONSTRATE THE ABILITY TO LABEL CORRECTLY A SET OF DRAWINGS WITH PART LIST, TITLE BLOCK INFORMATION AND DRAWING NUMBERS.
- 1.9) DEMONSTRATE THE ABILITY TO IDENTIFY GRAPHIC SYMBOLS FOR ELECTRICAL/ELECTRONIC INDUSTRY.

2) ELECTRICAL SAFETY CODE

UPON SUCCESSFUL COMPLETION OF THIS COURSE, THE STUDENT  
WILL BE ABLE TO:

- 2.1) IDENTIFY THE OBJECT AND SCOPE OF THE ELECTRICAL CODE HANDBOOK.
- 2.2) DEVELOP AN AWARENESS OF THE GENERAL RULES AND DEFINITIONS OF THE HANDBOOK.
- 2.3) IDENTIFY THE SIZE OF CONDUCTORS FOR LIGHTING, APPLIANCE AND POWER SUPPLY CIRCUITS.
- 2.4) IDENTIFY THE CONDUCTOR AMPACITIES REQUIRED FOR SERVICES, FEEDERS, AND BRANCH CIRCUITS.
- 2.5) IDENTIFY THE GROUNDING PROTECTION & CONTROL REQUIRED BY ELECTRICAL INSTALLATIONS.
- 2.6) DEMONSTRATE THE ABILITY TO INSTALL ELECTRICAL EQUIPMENT ACCORDING TO THE HANDBOOK.  
FUNDAMENTALS IN THE ENGLISH OR METRIC SYSTEMS.

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REQUIRED STUDENT RESOURCES  
( INCLUDING TEXTBOOKS & WORKBOOKS )

- 1) J.D. BETHUNE, BASIC ELECTRONIC AND ELECTRICAL  
DRAFTING WORKBOOK, PRENTICE-HALL
- 2) ELCTRICAL SAFETY CODE, 2nd EDITION, ONTARIO HYDRO

ADDITIONAL RESOURCE MATERIALS

- 1) J.M. KIRKPATRICK, BASIC INDUSTRIAL DRAFTING  
TORONTO. MERRILL. 1989
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---

**METHOD(S) OF EVALUATION**

THE FINAL GRADE OF THIS COURSE WILL BE DIVIDED BETWEEN THE RENDERED DRAWINGS (60%), & THE DRAWING THEORY AND CODE BOOK UNDERSTANDING (40%).

EACH UNIT OF THE COURSE WILL BE INDEPENDENTLY ASSESSED, AND EACH MUST BE SUCCESSFULLY COMPLETED TO COMPLETE THE COURSE.

THE FINAL GRADE FOR DRAFTING WILL BE DERIVED FROM THE RESULTS OF TWO TEACHER ASSIGNED TESTS, AND ASSIGNMENTS PLUS ONE PROJECT:

TWO TESTS	40%	( 20% PER TEST )
ASSIGNMENTS & PROJECT	60%	
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TOTAL	100%	

THE GRADING SYSTEM USED WILL BE AS FOLLOWS:

A+	>= 90%	CONSISTENTLY OUTSTANDING ACHIEVEMENT
A	80-89%	EXCELLENT ACHIEVEMENT
B	70-79%	ABOVE AVERAGE ACHIEVEMENT
C	55-69%	SATISFACTORY ACHIEVEMENT
R		REPEAT
X		INCOMPLETE