SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

SAULT
COLLEGE

COURSE OUTLINE

COURSE TITLE: DRAFTING AND BLUEPRINT READING

CODE NO. : DRF105 **SEMESTER:** 1

PROGRAM: MECHANICAL

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DATE: July 2010 Previous outline dated: May 2009

APPROVED:

"Corey Meunier"
CHAIR

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DATE

TOTAL CREDITS: **TWO**

PREREQUISITE(S):

HOURS/WEEK: **TWO**

I. COURSE DESCRIPTION:

The technician and tradesperson is required to receive and transfer technical information. Drawings and blueprints are used to transfer this information. Through practice the student will strengthen this skill, interpret and visualize this information found on the blueprints or drawings.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. Drawing instruments

Potential Elements of the Performance:

- Identify drafting instruments
- Use drafting instruments correctly
- Use correct drafting techniques

2. Orthographic Drawings

Potential Elements of the Performance:

- Interpret the information found in the title box
- Discuss the parameters of using one, two or three view orthographic drawings
- Understand first and third angle projections
- Draw with instruments, orthographic drawings Transfer surfaces
- Correct missing or incomplete views

3. Sketching techniques

Potential Elements of the Performance:

- Discuss the advantages of isometric sketching
- Discuss the advantages of oblique sketching
- Sketch isometric views
- Sketch oblique views

4. Dimensioning and tolerances

Potential Elements of the Performance:

- Use proper symbols and lines
- Discuss dimensioning techniques
- Apply tolerance techniques
- Produce complete accurate scale drawings

5. Sectional views, machining particulars, fasteners

Potential Elements of the Performance:

- Discuss and draw ,full, half and partial sections
- Draw and specify fillets and radii, counter bore and spot faces, tapers and bevels, keys and keyways
- Identify different thread types on the drawing
- Use standard thread designations

6. Blueprint reading

Potential Elements of the Performance:

- Read both detail and assembly drawings
- Recover the information required from assembly drawings
- Use the information found on detail drawings to check or reproduce a component.

III. TOPICS:

1. Instruments
2. Orthographic
3. Sketching techniques
4. Dimensioning and tolerances
5. Section views, particulars
6. Blueprint reading

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

TEXT " Blueprint Reading for the Machine Trades" sixth edition, Russ Shultz and Larry Smith

Drafting Kit for DRF105 (available in the Campus Book Store)

V. EVALUATION PROCESS/GRADING SYSTEM:

The following semester grades will be assigned to students:

Assignments (9)	90%
Attendance	10% (13/15) -1% for each unexcused hour/late
Total	100%

The following semester grades will be assigned to students:

Grade	Definition	*Grade Point Equivalent*
A+	90 – 100%	4.00
A	80 – 89%	
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:

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.

VII. COURSE OUTLINE ADDENDUM:

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.

The provisions contained in the addendum located on the portal form part of this course outline.