

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



Sault College

COURSE OUTLINE

COURSE TITLE: DRAFTING AND BLUEPRINT READING

CODE NO. : DRF 105 SEMESTER: 1

PROGRAM: MECHANICAL

AUTHOR: KAROL UCHMANOWICZ

DATE: SEPT 08 PREVIOUS OUTLINE DATED:

APPROVED:

CHAIR

DATE

TOTAL CREDITS: TWO

PREREQUISITE(S):

HOURS/WEEK: TWO

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For additional information, please contact Corey Meunier, Chair
School of Technology & Skilled Trades
(705) 759-2554, Ext. 2610

I. COURSE DESCRIPTION:

The technician and tradesperson is required to receive and transfer technical information. Drawings and blueprints are used for this information movement. Through practice the student will strengthen this skill.

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:

with practice learn the proper use of drafting instruments

2. *Orthographic*

Potential Elements of the Performance:

Discuss the parameters of using one, two or three view orthographic drawings

Sketch free hand ,assorted orthographic drawings

Draw with instruments, orthographic drawings

Transfer surfaces

Correct missing or incomplete views

3. *Isometrics*

Potential Elements of the Performance:

Discuss the advantages of isometric drawings

Sketch isometric views

Draw isometric views to scale

4. *Dimensioning and tolerancing*

Potential Elements of the Performance:

Use proper symbols and lines

Discuss dimensioning techniques

Apply tolerancing techniques

Produce complete and accurate 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, counterbore and spotfaces, tapers and bevels, keys and keyways

Identify thread types

Use standard thread designations

6. **Blueprint reading**

Potential Elements of the Performance:

Discuss the various types of prints

Find the correct locations of required information

Answer various questions using industrial blue prints

III. TOPICS:

1. Instruments
2. Orthographic
3. Isometrics
4. Dimensioning and tolerancing
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 including: Not necessarily “Staedtler” brand.

- Staedtler Circle Template No. 977101
- Staedtler Protractor No. 568-52-15
- Staedtler Plastic Drafting Bag
- Staedtler Mars 964 08-45 Set Square
- Staedtler Mars 964 10-60 Set Square
- Staedtler 987 18-31 Architect Scale
- Staedtler 987 18-SI Scale
- Staedtler Mars 97051-75 30 inch

T-Square (plastic) & Erasing Shield

V. EVALUATION PROCESS/GRADING SYSTEM:

The following semester grades will be assigned to students:

Three term tests	90%
Assignments	10%
Total	100%

Note: Attendance will be taken into consideration when issuing final grades.

The following semester grades will be assigned to students:

Grade	<u>Definition</u>	<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 2703 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.

Communication:

The College considers **WebCT/LMS** 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 **Learning Management System** communication tool.

Plagiarism:

Students should refer to the definition of “academic dishonesty” in *Student Code of Conduct*. 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:

Credit for prior learning will be given upon successful completion of a challenge exam or portfolio.

VIII. ADVANCE CREDIT TRANSFER:

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.