

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:** FALL

PROGRAM: MECHANICAL

AUTHOR: KARL UCHMANOWICZ

DATE: SEPT 07 **PREVIOUS OUTLINE DATED:** SEPT 06

APPROVED:

DEAN

DATE

TOTAL CREDITS: TWO

PREREQUISITE(S): NIL

HOURS/WEEK: TWO

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For additional information, please contact Colin Kirkwood, Dean
Technology, Skilled Trades & Natural Resources
(705) 759-2554, Ext. 2688

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 use of drafting instruments
2. Orthographic
Potential Elements of the Performance: discuss the parameters to one, two, or three view orthographic drawings
 Sketch free hand, assorted orthographic drawings
 With instruments, assorted orthographic views
 Transfer surfaces
 Add missing or incomplete views
3. Isometrics
Potential Elements of the Performance:
 Discuss the advantages of isometric drawings
 Sketch, free hand isometric views
 Draw isometric views to scale
4. Dimensioning and tolerance
Potential Elements of the Performance:
 Use proper symbols and lines
 Discuss tolerance techniques
 Discuss dimensioning techniques
 Draw three view orthographic drawings with proper dimensions and tolerances
5. Sectional views, machining particulars
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 various thread types

Use standard thread designations

6. Blueprint reading
Potential Elements of the Performance:
 Discuss the various types of blueprints
 Find pertinent information
 Identify, methods of referencing
 Answer various questions using industrial blueprints

III. TOPICS:

1. INSTRUMENTS
2. ORTHOGRAPHICS
3. ISOMETRICS
4. DIMENSIONING AND TOLERANCING
5. SECTION VIEWS, MACHINING PARTICULARS
6. BLUEPRINT READING

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Drafting kit (campus bookstore) .
Blueprint reading for the machine trades (text) Russ Shultz and Larry Smith sixth edition

V. EVALUATION PROCESS/GRADING SYSTEM:

Three term tests 90%
Assignments and quizzes 10%

Total = 100%

The following semester grades will be assigned to students:

Grade	<u>Definition</u>	<i>Grade Point Equivalent</i>
A+	90 – 100%	
A	80 – 89%	4.00
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:

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 703 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.

<include any other special notes appropriate to your course>

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.