

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

AUTHOR: Howard Gray howard.gray@saultcollege.ca

DATE: July 09 Previous outline dated: Sept 08

APPROVED:

“Corey Meunier”
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
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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 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:

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

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: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.

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.

Prior Learning Assessment:

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. Please refer to the Student Academic Calendar of Events for the deadline date by which application must be made for advance standing.

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

Substitute course information is available in the Registrar's office.

Disability Services:

If you are a student with a disability (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your professor and/or the Disability Services office. Visit Room E1101 or call Extension 2703 so that support services can be arranged for you.

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*. A professor/instructor may assign a sanction as defined below, or make recommendations to the Academic Chair for disposition of the matter. The professor/instructor may (i) issue a verbal reprimand, (ii) make an assignment of a lower grade with explanation, (iii) require additional academic assignments and issue a lower grade upon completion to the maximum grade “C”, (iv) make an automatic assignment of a failing grade, (v) recommend to the Chair dismissal from the course with the assignment of a failing grade. 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.

Student Portal:

The Sault College portal allows you to view all your student information in one place. **mysaultcollege** gives you personalized access to online resources seven days a week from your home or school computer. Single log-in access allows you to see your personal and financial information, timetable, grades, records of achievement, unofficial transcript, and outstanding obligations. Announcements, news, the academic calendar of events, class cancellations, your learning management system (LMS), and much more are also accessible through the student portal. Go to <https://my.saultcollege.ca>.

Electronic Devices in the Classroom:

Students who wish to use electronic devices in the classroom will seek permission of the faculty member before proceeding to record instruction. With the exception of issues related to accommodations of disability, the decision to approve or refuse the request is the responsibility of the faculty member. Recorded classroom instruction will be used only for personal use and will not be used for any other purpose. Recorded classroom instruction will be destroyed at the end of the course. To ensure this, the student is required to return all copies of recorded material to the faculty member by the last day of class in the semester. Where the use of an electronic device has been approved, the student agrees that materials recorded are for his/her use only, are not for distribution, and are the sole property of the College.

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.