

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ON

COURSE OUTLINE

COURSE TITLE: DRAFTING

CODE NO: DRF 109 SEMESTER: 2

PROGRAM: MACHINE SHOP

AUTHOR: BRUCE PROUT

DATE: JAN. 1992 PREVIOUS OUTLINE DATED: JAN. 89

APPROVED: *L.P. Choquette* Date 92-01-07

DRAFTING - DRF 109

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CLASS DURATION - 64 HOURS

PROFESSOR - MR. BRUCE PROUT

## 1.0 INTRODUCTION

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### 1.1 Course Objectives

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DRAFTING 109 is a continuation of DRF 106, which focused on basic orthographic and dimensioning practices used for detail drawings. In DRF 109, more advanced orthographic techniques will be studied. Screw threads, limits and tolerances and assembly drawings will be introduced as new topics.

Emphasis will continue to be placed on using knowledge of drafting techniques to enable proficient blueprint interpretation.

Course objectives include the following goals:

- a) To advance the understanding of how to use drawings as an effective means of communication.
- b) To provide and appreciation for the need and use of clear, legible drawings.
- c) To introduce basic drafting methodology, and to practice basic drawing skills.
- d) To practice blueprint interpretation.

## 1.2 Performance Objectives

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- a) Demonstrate through oral and written means, familiarity with terminology.
- b) Using basic drafting fundamentals, show an ability to produce quality freehand sketches and drawings.
- c) Demonstrate through tests and assignments the ability to interpret technical drawings that use viewing, dimensioning and sectioning techniques.
- d) Demonstrate through tests and assignments an understanding of tolerances, allowances, fits, and their applications.
- e) Demonstrate through tests and assignments an understanding of screw threads, their applications and specifications.
- f) Regular, punctual class attendance and assignment completion.

## 1.3 Course Structure

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Major topic headings to include:

- a) review of DRF 106.
- b) drawing instruments and their use.
- c) revolved and removed sections.
- d) screw threads and fasteners.
- e) primary auxiliary views.
- f) tolerances and allowances.
- g) surface texture.
- h) assembly drawings.
- i) secondary auxiliary views.

#### 1.4 Learning Methods

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- a) Topic discussion and demonstration.
- b) Individual study.
- c) Practice and review.
- d) Summary notes.
- e) Tests and assignments.

#### 1.4 Text Books

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- a) Interpreting Engineering Drawings by Jensen/Hines
- b) Problems in Engineering Drawings by Luzadder/Duff/Goss

#### - Reference Manuals

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- Engineering Drawing and Design by Jensen/Helsel
- C.S.A. Drawing Standards

#### 1.5 Supplies Required

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- a) drawing pencils - medium/soft/hard
- b) 10" - 60' set square, 8"- 45' set square
- c) T - square
- d) eraser and eraser shield
- e) co-ordinate grid paper pad, and "A" size drawing paper
- f) 2" or 4" bow compass
- g) Metric and Imperial Engineer's scales
- h) masking tape, lead sharpener

## 2.0 GRADING

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### 2.1 Final Mark

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Final marks will be compiled in the following way:

Tests .....	50%
Assignments.....	25%
Quizzes.....	25%

### 2.2 Final Grade

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Final grade will be assigned according to the final mark as follows:

A+ =	91% - 100%
A =	80% - 90%
B =	69% - 79%
C =	55% - 68%
I, R =	less than 55%

Note: Students having "I" grades may be given opportunity to repeat up to two "incomplete" tests, one time only. If the revised average is over 55%, the previous "I" grade will be replaced by a "C" grade (55%). If the revised final mark is not over 55%, a final "R" grade will be assigned, and the student will be obliged to repeat the course.

Qualification for re-write opportunity will be based on greater than 80% quiz completion and 100% assignment completion status.

### 2.3 Tests

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Tests will be scheduled throughout the term, to a maximum of four. One week notice minimum will be provided to allow preparation before each test.

Students who will be absent for a scheduled test must contact the instructor in ADVANCE. Students absent without prior notification and a valid reason will be assigned a "ZERO" grade for the missed test.

### 2.4 Assignments

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Assignments will be required to be submitted throughout the term, and subject to random marking. Assignments may be scheduled for class time, or issued as homework exercises. Assignments are due PRIOR to the start of the class on the due day.

Late or unsubmitted assignments will be given a "ZERO" grade, unless special arrangements were made prior to due date.

Sketch and drawing assignments will be scored based on specific objectives related to the section of study. The objectives and scoring system are expected to change between sections of study.

### 2.5 Quizzes

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Unscheduled mini-tests will be held throughout the term, as class time exercises. One of the objectives of quizzes is to encourage regular class attendance. Students absent the day of a quiz will be assigned a "ZERO" grade, unless special arrangements were allowed for PRIOR to the quiz.

### 3.0 Classroom Order

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- a) Discussion, questions, and general interaction will be encouraged as positive features of the learning process.
- b) Disruptive conduct is not acceptable.
- c) Other course work, or study is not permitted during lesson or lab periods.
- d) Honesty, fairness and respectable treatment of others are basic principles that will govern at all times.

### 4.0 Subject to Change

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In the case of special circumstance, the instructor has the option of modifying guidelines in this course outline.