

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



COURSE OUTLINE

COURSE TITLE: PRINT READING, SPECIFICATIONS AND LAYOUT

CODE NO. : CCT103 **SEMESTER:** ONE

PROGRAM: CIVIL ENGINEERING TECHNICIAN
CONSTRUCTION CARPENTRY TECHNIQUES

AUTHOR: BARRY SPARROW

DATE: SEPT 2010 **PREVIOUS OUTLINE DATED:** JUNE 2010

APPROVED: _____
"Corey Meunier"
CHAIR DATE

TOTAL CREDITS: FOUR

PREREQUISITE(S): NONE

HOURS/WEEK: FOUR

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School of Technology & Skilled Trades
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I. COURSE DESCRIPTION:

This course will provide the student with an introduction to the preparation and interpretation of construction drawings (prints) and specifications. The student will learn how drawings and specifications are organized as well as a systematic approach for drawing review. The student will also be introduced to the concepts of construction work layout using a variety of techniques. The student will also be given an introduction to CAD (computer-aided drawing) with an emphasis on locating and collecting data from CAD drawings.

II. LEARNING OUTCOMES:

- 1. *Use survey instruments to collect and provide data for engineering/construction projects.***
- 2. *Prepare and interpret detailed dimensional drawings using computer assisted drafting software.***
- 3. *Demonstrate relevant mathematical, computer and technical problem solving skills as it relates to civil engineering/construction projects.***
- 4. *Demonstrate an understanding of the working roles and inter-relationships required to adhere to the objectives of the project and work in accordance to labour-management principles and practices.***

VII. TOPIC OUTLINE

Outcome	Topic and Content	Reading	Week
2,4	1. Print Reading Overview 1.1. Purpose of Construction Drawings and Specifications 1.2. Organization of Drawings 1.3. Chapter Questions/Activities	LMS Section 1 Unit 1 & 2	1
2,3	2. Construction Math Review and Measurement 2.1. Fractions and Units of Measure 2.2. Area and Volume 2.3. Measuring Tapes and Scales 2.4. Chapter Questions/Activities	LMS Section 1 Unit 3	2
2,3	3. Print Reading Overview 3.1. Lines and Symbols 3.2. Sketching and Types of Drawings 3.3. Scales and Dimensioning 3.4. Chapter Questions, Print Reading Activities	LMS Section 2 Units 4,5,7 & 8	3
3,4	4. Specifications and Materials 4.1. Specifications 4.2. Construction Materials 4.3. Interpreting Foundation Plans 4.4. Chapter Questions/ Print Reading Activities	LMS Section 3 Units 9 &10	4
1,2,3	5. Print Reading 5.1. Plot Plans and Survey Drawings 5.2. Foundation Drawings 5.3. Residential Framing Drawings 5.4. Commercial Construction Drawings 5.5. Mechanical and Electrical Drawings 5.6. Chapter Questions, Print Reading Activities 6. Mid-term Exam	LMS Section 4 Units 11,12,13,14, 15,16 & 17	5,6,7 7
2	7. Introduction to CAD 7.1. Use of CAD in Construction Drawings 7.2. Starting AutoCAD	LMS Handout	8,9

Outcome	Topic and Content	Reading	Week
	7.3. Opening Drawings/File Management 7.4. Basic Drawing and Editing 7.5. CAD Activities/Assignment		
2	8. Gathering Information Using CAD 8.1. Measure Distance and Area 8.2. Measure Perimeter/Total Length 8.3. Determine Volume 8.4. Determine Item Counts	LMS Handout	10,11
2	9. Printing and Plotting CAD Drawings 9.1. Use of Layout Space 9.2. Viewports/Plot Scale 9.3. Assigning Line Weights	LMS Handout	12
2	10. Elementary Drawing and Editing with CAD 10.1. Drawing and Erasing Entities 10.2. Saving and Managing Files 10.3. Basic Editing Commands	LMS Handout	13
2,3,4	11. Advanced Print Reading Projects 11.1. Review Architectural/Structural Drawings 11.2. Review Site/Civil Drawings 11.3. HVAC Drawings 11.4. Specifications 11.5. Advanced Print Reading Activity	Section 6 Advanced Projects A, B, C, & D LMS Handout	14,15
	12. Final Exam		15

III. REQUIRED RESOURCES/TEXTS/MATERIALS:

Print Reading for Construction Residential and Commercial

(With prints)

Walter C. Brown and Daniel P. Dorfmueller

The Goodheart-Willcox Company, Inc., Publishers

ISBN 1-59070-347-2

Architectural and Metric Scales

Outcome	Topic and Content	Reading	Week
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IV. EVALUATION PROCESS/GRADING SYSTEM:

Assignments and Activities (8-10)	50%
Mid-term Test	25%
Final Test	25%
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%	
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.	

V. 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. Once the classroom door has been closed, the learning process has begun. Late arrivers may not be granted admission to the room.

Assignments and Examination Policy:

If a student is unable to write a test or exam at the scheduled time the following procedure shall apply:

- The student shall provide the professor with advance notice (in writing) of the need to miss the test
- The student shall provide documentation as to the reason for the absence and the make-up will be at the discretion of the professor.
- Upon return the student is responsible to make arrangements for the writing of the test. This arrangement shall be made prior to the next schedule class.
- In the event of an emergency, the student shall telephone the professor as soon as possible at 759-2554, to notify of the absence. If the professor is not available, the college has a 24 hour voice mail system.
- In the event of an test missed due to emergency, the student shall provide documentation from a professional such as doctor or lawyer.
- Exams written after the scheduled date may receive a reduced grade

All late assignments (without documentation) will receive a maximum grade of C (60%).

VI. COURSE OUTLINE ADDENDUM

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