

**SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY**

**SAULT STE. MARIE, ONTARIO**



**SAULT  
COLLEGE**

**COURSE OUTLINE**

**COURSE TITLE:** Blueprints, Specifications and Layout

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

**PROGRAM:** Civil Engineering Technician  
Construction Carpentry Techniques  
Renewable Energy and Green Construction Techniques  
Home Inspection Technician

**AUTHOR:** Barry Sparrow

**DATE:** September 2011 **PREVIOUS OUTLINE DATED:** September 2010

**APPROVED:** " *Corey Meunier* " **CHAIR** **DATE**

**TOTAL CREDITS:** FOUR

**PREREQUISITE(S):** NIL

**HOURS/WEEK:** FOUR

**Copyright ©2011 The Sault College of Applied Arts & Technology**  
*Reproduction of this document by any means, in whole or in part, without prior written permission of Sault College of Applied Arts & Technology is prohibited.*  
*For additional information, please contact Corey Meunier, Chair  
School of Technology & Skilled Trades  
(705) 759-2554, Ext. 2610*

**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.

**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

25 foot tape measure

**IV. EVALUATION PROCESS/GRADING SYSTEM:**

Assignments and Activities (8-10)	50%
Mid-term Test	25%
Final Test	25%
Total	<hr/> 100%

The following semester grades will be assigned to students:

<b>Grade</b>	<b><u>Definition</u></b>	<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.	

**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.

Week	Outcomes	Format	Hours	Topic/Content	Readings	Assignments	Assessment	Resources
				<b>Print Reading Overview</b>				
1	2,4	Lecture	1	-Purpose of construction drawings and specifications -Organization of drawing sets	Section 1 Unit 1	Complete 'Test Your Knowledge' questions for Unit 1	Self-check	LMS, text, drawing set
		Lab	2	-Introduction to Print Reading			Participation	
				<b>Construction Math Review and Measurement</b>				
2	2,3	Lecture	2	-Systems of measurement -Area and volume measurement -Using tapes and scales	Section 1 Units 2 and 3	Complete Activities / 'Test Your Knowledge' questions for Units 2 and 3	Self-check	LMS, text, drawing set, scales, tape measure
		Lab	2	-Collecting and presenting measurement information		Field Measurement Exercise	Group assignment	Distance measurement tools
				<b>Print Reading</b>				
3	2,3	Lecture	2	-Lines and symbols -Sketching and drawing types -Scales and dimensioning	Section 2 Units 4,5,7,8	Complete Activities and 'Test Your Knowledge' questions for Units 4,5,7,8	Self-check/ LMS	
		Lab	2	-Print Reading Activity		Project A1, A2 and		LMS

Week	Outcomes	Format	Hours	Topic/Content	Readings	Assignments	Assessment	Resources
				-Sketching Activities		A3		
				<b>Specifications and Materials</b>				
4	3,4	Lecture	2	-Construction specifications -Construction materials	Section 3 Units 9 and 10	Complete Activities and 'Test Your Knowledge' Units 2 and 3	Self-check/LMS	LMS
		Lab	2	-Print Reading Activity				
				<b>Print Reading</b>				
5	1,2,3	Lecture	2	-Site plans and survey drawings -Foundation drawings	Section 4 Units 11 and 12	Complete Activities and 'Test Your Knowledge' questions for Units 11 and 12	Self-check/LMS	
		Lab	2	-Print Reading Activity		Project B1, B2 and B3		LMS
6	1,2,3	Lecture	2	-Residential wood frame drawings	Section 4 Unit 13	Complete Activities and 'Test Your Knowledge' questions for Units 13		
		Lab	2	-Print Reading Activity				
7	1,2,3	Lecture		-Commercial construction drawings -Plumbing Drawings	Section 4 Units 14 and 15	Complete Activities and 'Test Your Knowledge' questions for Units		LMS

Week	Outcomes	Format	Hours	Topic/Content	Readings	Assignments	Assessment	Resources
						14 and 15		
		Test		Mid-term Test			Test	LMS
8				-Mechanical and electrical drawings -Welding prints	Section 4 Units 16, 17 and 18	Complete Activities and 'Test Your Knowledge' questions for Units 16, 17 and 18		
				<b>Introduction to AutoCAD</b>				
9		Lecture		-CAD in construction drawings -Starting AutoCAD and screen layout -pointing device		Project C1 through C7		LMS
		Lab		-CAD Activity		CAD Assignment 1		
10		Lecture		-Drawings and file management -Basic drawing and editing				LMS
		Lab		CAD Activity		CAD Assignment 2		
11	2	Lecture		-Using information tools in AutoCAD -Find distance, area, volume perimeter, and object properties				LMS

