SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

CICE COURSE OUTLINE

COURSE TITLE: Construction Tools and Safety

CODE NO. : CCT100 **SEMESTER:** Fall
MODIFIED CODE: CCT0100

PROGRAM:
1. Civil Engineering Technician
2. Construction Carpentry Techniques
3. Renewable Energy and Green Construction Techniques
4. Home Inspection Technician

AUTHOR: Sam Spadafora /Barry Sparrow
MODIFIED BY: Rachel Valois, Learning Specialist, CICE Program

DATE: Sept 2013 **PREVIOUS OUTLINE DATED:** Sept 2012

APPROVED: "Angelique Lemay" Sept 2013

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Dean, School of Community Services and Interdisciplinary Studies **DATE**

TOTAL CREDITS: FOUR

PREREQUISITE(S): NIL

HOURS/WEEK: FOUR

I. COURSE DESCRIPTION:

This course focuses on safety practices and procedures in the construction industry. CICE students, with assistance from a learning specialist, will learn about occupational and health safety standards, work site hazards, personal protective equipment and maintenance requirements, and work site communication skills. Hands on applications focus on safe operation of hand tools, power tools, powder actuated tools and cutting torch
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II. LEARNING OUTCOMES:

Upon successful completion of this course, the CICE student, along with the assistance of a Learning Specialist, will demonstrate the basic ability to:

1. Adhere to applicable health and safety related legislation and practices.

2. Assist in preparing construction specifications, material and cost estimates.

3. Assist in planning, scheduling and monitoring construction and civil engineering projects.

4. Demonstrate basic and relevant mathematical, computer and technical problem solving skills as it relates to civil engineering / construction projects.

5. 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.

6. Apply sound environmental practices and policies in civil engineering / construction projects.

III. REQUIRED RESOURCES/TEXTS/MATERIALS:

2013 Pocket Ontario OH&S Act & Regulations – Construction Edition
(Available in the Sault College Book Store)

Construction Health and Safety Manual (2012 Edition)
(Available in the Sault College Book Store)

Personal Protective Equipment (PPE) and Tools will be required during classes to be conducted in a shop environment. PPE and tools required are:

- CSA Certified Hard Hat
- CSA Certified (Green Patch) work boots
- CSA Certified Safety Glasses
- Work gloves e) Carpenters work pouch
- 25 foot measuring tape
- Carpenters Hammer
- Speed Square
- Carpenters pencil

IV. EVALUATION PROCESS/GRADING SYSTEM:

Application Exercises- Based on the CICE student's ability to safely and properly operate tools and construct projects to specifications. (Weekly)	50%
Tests	35%
Attendance	15%
	100%

The following semester grades will be assigned to students:

Grade	Definition	*Grade Point Equivalent*
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.

VI. 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.

VII. COURSE OUTLINE ADDENDUM:

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

The professor reserves the right to modify this course outline at any time, based on the needs of the learner.

Week	Outcomes	Format	Hours	Topic/Content	Readings	Assignments	Assessment	Resources
				Rules and Personal Protective Equipment (PPE)				
1	1	Lecture	2	Shop Safety Rules Shop Procedures				Handout
		Lab	2	Eye and Head Protection Foot and Hearing Protection	Construction Health & Safety Handbook	Assignment 1	Peer Evaluation	Construction Health & Safety Handbook
2	1	Lecture	2	Personal Protective Equipment				Handout
		Lab	2	Respiratory Protection Hand and Skin Protection High Visibility Clothing	Construction Health & Safety Handbook	Assignment 2	Peer Evaluation	Construction Health & Safety Handbook
3	1	Lecture	2	Equipment Setup and Handling			**PPE Test**	
		Lab	2	Equipment Handling		Assignment 3	Peer Evaluation	Handout
				Hand Tools				
4	1,2,3,4,6	Lecture	2	Introduction to Hand Tools / Demonstration				Handout
		Lab	2	Reading Tapes		Assignment 4	**Hand Tools Test**	
				Hand Tools				
5	1,2,3,4,6	Lecture	2	Use of Hand Tools				Handout
		Lab	2	Hand Tools Project		Hand Tool Project		
6	1,2,3,4,6	Lecture	2	Use of Hand Tools				Handout
		Lab	2	Hand Tools Project		Hand Tool Project	Submit for evaluation	
				Power Tools				

Week	Outcomes	Format	Hours	Topic/Content	Readings	Assignments	Assessment	Resources
7	1,2,3,4,6	Lecture		Introduction to Power Tools, Types and Usage				Handout
		Lab	2	Power Tools Demonstration		Assignment 5		
8	1,2,3,4,6	Lecture	2	Using Power Cutting, Drilling and Shaping Tools				Handout
		Lab		**Using Power Tools**				
9	1,2,3,4,6	Lecture	2	Using Power Cutting, Drilling and Shaping Tools				Handout
		Lab	2	Passport Testing			**Test**	
				Power Tools Project				
10	1,2,3,4,6	Lecture	2	Power Tools Project Overview				Handout
		Lab	2	Power Tools Project (Workbench)		Assignment 6	Peer Evaluation	
11	1,2,3,4,6	Lecture	2	Using Power Cutting, Drilling and Shaping Tools				Handout
		Lab	2	Power Tools Project (Workbench)		Power Tools Project	Project Submission	
				Health and Safety				
12	1,5	Lecture	2	-Introduction to Construction Safety and -Applicable Legislation Common Health and Safety Hazards				Handout Construction Health & Safety Handbook
		Lab	2	Personal Protective Equipment		Assignment	Peer Evaluation	Occupational Health & Safety Act
13	1,5	Lecture	2	-Manual Material Handling and Back Care -Access Equipment				Handout

Week	Outcomes	Format	Hours	Topic/Content	Readings	Assignments	Assessment	Resources
		Lab	2				Test	
14	1,5	Lecture	2	-Housekeeping and Site Hazard Management -Basic Electrical Safety		Assignment	Peer Evaluation	Handout
		Lab	2				Test	
15		Lecture	2	Review and Questions				
		Test	**2**	**Final Test**			**Test**	
16		Lecture	2	Course wrap-up				

CICE Modifications:

Preparation and Participation

1. A Learning Specialist will attend class with the student(s) to assist with inclusion in the class and to take notes.
2. Students will receive support in and outside of the classroom (i.e. tutoring, assistance with homework and assignments, preparation for exams, tests and quizzes.)
3. Study notes will be geared to test content and style which will match with modified learning outcomes.
4. Although the Learning Specialist may not attend all classes with the student(s), support will always be available. When the Learning Specialist does attend classes he/she will remain as inconspicuous as possible.

A. Tests may be modified in the following ways:

1. Tests, which require essay answers, may be modified to short answers.
2. Short answer questions may be changed to multiple choice or the question may be simplified so the answer will reflect a basic understanding.
3. Tests, which use fill in the blank format, may be modified to include a few choices for each question, or a list of choices for all questions. This will allow the student to match or use visual clues.
4. Tests in the T/F or multiple choice format may be modified by rewording or clarifying statements into layman's or simplified terms. Multiple choice questions may have a reduced number of choices.

B. Tests will be written in CICE office with assistance from a Learning Specialist.

The Learning Specialist may:

1. Read the test question to the student.
2. Paraphrase the test question without revealing any key words or definitions.
3. Transcribe the student's verbal answer.
4. Test length may be reduced and time allowed to complete test may be increased.

C. Assignments may be modified in the following ways:

1. Assignments may be modified by reducing the amount of information required while maintaining general concepts.
2. Some assignments may be eliminated depending on the number of assignments required in the particular course.

The Learning Specialist may:

1. Use a question/answer format instead of essay/research format
2. Propose a reduction in the number of references required for an assignment
3. Assist with groups to ensure that student comprehends his/her role within the group
4. Require an extension on due dates due to the fact that some students may require additional time to process information
5. Formally summarize articles and assigned readings to isolate main points for the student
6. Use questioning techniques and paraphrasing to assist in student comprehension of an assignment

D. Evaluation:

Is reflective of modified learning outcomes.