



**I. COURSE DESCRIPTION:**

Upon successful completion of this course, the student will be able to describe the methods and procedures for the safe use of hand and power tools, powder- actuated tools according to industry standards of practice. The student will also be able to demonstrate the basic skills required to safely operate the previously mentioned tools.

Students can expect an introduction to and information for new construction workers to know their rights and to work safely. Students can also expect to learn the importance of accessing the Occupational Health & Safety Act & the Regulations, and be able to identify and assess health & safety hazards associated with formwork, working at heights, manual material handling, electrical hazards, equipment hazards, traffic control, trenching hazards, hoisting rigging and crane hazards, and confined space hazards.

**II. LEARNING OUTCOMES:**

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 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.***

**VII. TOPIC OUTLINE**

| Outcome | Topic and Content                | Reading | Week |
|---------|----------------------------------|---------|------|
| 1       | 1. Personal Protective Equipment |         |      |

|           |   |  |              |             |
|-----------|---|--|--------------|-------------|
|           |   |  | Handout      | 1,2,3       |
|           | 1.1. Shop Safety Rules                              |  |              |             |
|           | 1.2. Eye Protection / Head Protection               |  | Const        |             |
|           | 1.3. Foot Protection/Hearing Protection             |  | H&S          |             |
|           | 1.4. Respiratory Protection                         |  | 2008         |             |
|           | 1.5. Hand/Skin Protection, High Visibility Clothing |  | Edition      |             |
|           | 1.6. Equipment Handling                             |  |              |             |
|           | 1.7. Personal Protective Equipment Test (Written)   |  |              |             |
| 1,2,3,4,6 | 2. Hand Tools                                       |  | Handout      | 3,4,5,6     |
|           | 2.1. Introduction To Hand Tools                     |  |              |             |
|           | 2.2. Hand Tools Test (Written)                      |  |              |             |
|           | 2.3. Reading A Measuring Tape (Imperial/Metric)     |  |              |             |
|           | 2.4. Hands Tools Demo                               |  |              |             |
|           | 2.5. Hand Tools Project ( )                         |  |              |             |
| 1,2,3,4,6 | 3. Power tools                                      |  | Handout      | 7,8,9,10,11 |
|           | 3.1. Introduction To Power Tools                    |  |              |             |
|           | 3.2. Power Tools Demo / Testing (Passport)          |  |              |             |
|           | 3.3. Power Tools Project (Work Bench)               |  |              |             |
| 1,5       | 4. Health And Safety                                |  |              |             |
|           | 4.1. Introduction To Construction                   |  | Handout      | 12,13,14,15 |
|           | 4.2. Legislation                                    |  |              |             |
|           | 4.3. Common Health and Safety Hazards               |  | Const        |             |
|           | 4.4. Personal Protective Equipment                  |  | H&S          |             |
|           | 4.5. Manual Material Handling and Back Care         |  | 2008 Edition |             |
|           | 4.6. House Keeping                                  |  |              |             |
|           | 4.7. Access Equipment                               |  | OH&S         |             |
|           | 4.8. Basic Electrical Safety                        |  | Act          |             |

**III. REQUIRED RESOURCES/TEXTS/MATERIALS:**

1. **2009 Pocket Ontario OH&S Act & Regulations – Construction Edition** (Available in the Sault College Book Store)
2. **Construction Health and Safety Manual (2008 Edition)** (Available in the Sault College Book Store)
3. **Personal Protective Equipment (PPE) and Tools** will be required during classes to be conducted in a shop environment. PPE and tools required are:
  - a) CSA Certified Hard Hat
  - b) CSA Certified (Green Patch) work boots
  - c) CSA Certified Safety Glasses
  - d) Work gloves e) Carpenters work pouch
  - f) 25 foot measuring tape
  - g) Carpenters Hammer
  - h) Speed Square
  - i) Carpenters pencil

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

|   |      |
|---|------|
| <b>Application Exercises-</b> Based on the students' ability to safely and properly operate tools and construct projects to specifications. | 50%  |
| <b>Tests</b>  | 35%  |
| <b>Attendance</b>   | 15%  |
|   | 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%                |                               |
| A            | 80 – 89%                 | 4.00                          |
| 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.