



COURSE OUTLINE: CCT100 - CONSTR.SAFETY/TOOLS

Prepared: Marc Pilon, MBA, P.Eng, FEC, C.E.T, PMP

Approved: Martha Irwin - Dean

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| Course Code: Title | CCT100: CONSTRUCTION SAFETY/TOOLS |
| Program Number: Name | 4080: CIVIL ENG TECHNICIAN 4098: CONSTRUCTION TECH. |
| Department: | CIVIL/CONSTRUCTION |
| Academic Year: | 2025-2026 |
| Course Description: | <p>This course focuses on safety practices and procedures in the construction industry. Students 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.</p> <p>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 and 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</p> <p>Students can expect an introduction to and information for new construction workers to know their right</p> |
| Total Credits: | 4 |
| Hours/Week: | 4 |
| Total Hours: | 56 |
| Prerequisites: | There are no pre-requisites for this course. |
| Corequisites: | There are no co-requisites for this course. |
| This course is a pre-requisite for: | CCT120, CCT121, CCT122 |
| Vocational Learning Outcomes (VLO's) addressed in this course: | 4080 - CIVIL ENG TECHNICIAN VLO 1 develop and use strategies to enhance professional growth and ongoing learning in the civil engineering field. VLO 2 comply with workplace health and safety practices and procedures in accordance with current legislation and regulations. |
| Please refer to program web page for a complete listing of program outcomes where applicable. | 4098 - CONSTRUCTION TECH. VLO 1 Identify and use strategies to enhance professional growth and ongoing learning in the construction field. VLO 2 Identify and adhere to established health and safety practices. VLO 3 Perform all construction tasks in compliance with applicable laws, regulations, codes |



| | and ethical practices in the construction field. | | | | |
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| | VLO 9 Select, maintain and safely operate hand and power tools and equipment used in the building construction trades. | | | | |
| Essential Employability Skills (EES) addressed in this course: | <p>EES 1 Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience.</p> <p>EES 2 Respond to written, spoken, or visual messages in a manner that ensures effective communication.</p> <p>EES 8 Show respect for the diverse opinions, values, belief systems, and contributions of others.</p> <p>EES 9 Interact with others in groups or teams that contribute to effective working relationships and the achievement of goals.</p> <p>EES 10 Manage the use of time and other resources to complete projects.</p> <p>EES 11 Take responsibility for ones own actions, decisions, and consequences.</p> | | | | |
| Course Evaluation: | <p>Passing Grade: 50%, D</p> <p>A minimum program GPA of 2.0 or higher where program specific standards exist is required for graduation.</p> | | | | |
| Other Course Evaluation & Assessment Requirements: | <p>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</p> <p>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.</p> | | | | |
| Books and Required Resources: | <p>Pocket Ontario Occupational Health & Safety Act & Regulations by Carswell ISBN: 9780779894284</p> <p>Construction Health & Safety Manual by Infrastructure Health And Safety Publisher: Constrution Safety Association of Ontario Edition: 2019 ISBN: 9780919465541</p> | | | | |
| Course Outcomes and Learning Objectives: | <table border="1"> <thead> <tr> <th>Course Outcome 1</th> <th>Learning Objectives for Course Outcome 1</th> </tr> </thead> <tbody> <tr> <td>1)The graduate has reliably demonstrated the ability to</td> <td> <ul style="list-style-type: none"> use appropriate self-management techniques (e.g., time management, </td> </tr> </tbody> </table> | Course Outcome 1 | Learning Objectives for Course Outcome 1 | 1)The graduate has reliably demonstrated the ability to | <ul style="list-style-type: none"> use appropriate self-management techniques (e.g., time management, |
| Course Outcome 1 | Learning Objectives for Course Outcome 1 | | | | |
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| | <p>identify and use strategies to enhance professional growth and ongoing learning in the construction field.</p> | <p>stress management)</p> <ul style="list-style-type: none"> • identify the need for self-evaluation and explain the importance of lifelong learning • seek assistance to resolve problems beyond own knowledge and skills • seek out and act upon constructive feedback to enhance work performance • identify training courses, workshops and programs to enhance employment opportunities in the construction trades field |
| | <p>Course Outcome 2</p> | <p>Learning Objectives for Course Outcome 2</p> |
| | <p>2) Comply with workplace health and safety practices and procedures in accordance with current legislation and regulations.</p> | <ul style="list-style-type: none"> • identify employee rights and responsibilities associated with health and safety practices • conduct self in safe manner and in accordance with the requirements of work situation • participate in health and safety training • initiate actions to mitigate risks to health and safety • identify and comply with workplace health and safety signs • comply with all requirements of the current Ontario Health and Safety Act, 1990 • encourage and support a culture of safety in the workplace • Demonstrate proper use of full PPE including respiratory and high-visibility apparel • Identify and mitigate safety hazards related to manual material handling, access equipment, and electrical tools |
| | <p>Course Outcome 3</p> | <p>Learning Objectives for Course Outcome 3</p> |
| | <p>The graduate has reliably demonstrated the ability to perform all construction tasks in compliance with applicable laws, regulations, codes and ethical practices in the construction/civil engineering field.</p> | <ul style="list-style-type: none"> • adhere to current legislation, standards, codes and bylaws that regulate the equipment and materials used in construction projects* • perform ethical work practices within the construction industry |
| | <p>Course Outcome 4</p> | <p>Learning Objectives for Course Outcome 4</p> |
| | <p>4) The graduate has reliably demonstrated the ability to select, maintain and safely operate hand and power tools and equipment used in the building construction trades.</p> | <ul style="list-style-type: none"> • select, use and maintain hand tools, portable and stationary power tools • use rakes, shovels and wheelbarrows • operate safely and maintain pneumatic hammers, vibrators and tampers • tend to machines or equipment used in construction such as mixers, compressors and pumps. |

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| | <ul style="list-style-type: none"> • Complete structured tool projects to demonstrate proficiency in the safe use and maintenance of tools • Pass practical passport testing for power tool operation • select and use materials, fasteners and connectors commonly used in the construction industry • Demonstrate safe operation, maintenance, and storage of common hand and power tools • Use measuring and layout tools such as tapes, speed squares, and levels in assigned tasks | |
| | Course Outcome 5 | Learning Objectives for Course Outcome 5 |
| | Community Outreach Project (Mandatory) | <p>The Community Outreach Project will consist of planning and participation in the Sault College/United Way Trades Day of Caring. A specific outline of this activity, as well as student expectations will be posted to LMS.</p> <p>Students may request an alternate Community Outreach Project by submitting the request as well as a detailed workplan to Program Coordinator Marc Pilon (marc.pilon@saultcollege.ca) no later than the end of Week 2.</p> <p>Note the Community Outreach Project is a mandatory component of the course, and students who fail to complete this element will not receive the course credit regardless of their course grade in the other assessment categories.</p> |

Evaluation Process and Grading System:

| Evaluation Type | Evaluation Weight |
|----------------------------|-------------------|
| Application Exercises | 50% |
| Community Outreach Project | 10% |
| Tests | 40% |

Date: July 31, 2025

Addendum: Please refer to the course outline addendum on the Learning Management System for further information.