



COURSE OUTLINE: CCT103 - BLUEPRINTS & LAYOUT

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Approved: Martha Irwin - Dean

Course Code: Title	CCT103: BLUEPRINTS, SPECIFICATIONS & LAYOUT
Program Number: Name	4080: CIVIL ENG TECHNICIAN 4098: CONSTRUCTION TECH.
Department:	CIVIL/CONSTRUCTION
Academic Year:	2025-2026
Course Description:	<p>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.</p> <p>The student will also be introduced to the concepts of construction work measurement and 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.</p>
Total Credits:	4
Hours/Week:	3
Total Hours:	42
Prerequisites:	There are no pre-requisites for this course.
Corequisites:	There are no co-requisites for this course.
Vocational Learning Outcomes (VLO's) addressed in this course:	4080 - CIVIL ENG TECHNICIAN
Please refer to program web page for a complete listing of program outcomes where applicable.	VLO 1 develop and use strategies to enhance professional growth and ongoing learning in the civil engineering field.
	VLO 3 complete duties and assist in monitoring that work is performed in compliance with contractual obligations, applicable laws, standards, bylaws, codes and ethical practices in the civil engineering field.
	VLO 6 collect, process and interpret technical data to produce written and graphical project-related documents.
	VLO 7 use industry-specific electronic and digital technologies to support civil engineering projects.
	4098 - CONSTRUCTION TECH.
	VLO 1 Identify and use strategies to enhance professional growth and ongoing learning in the construction field.
	VLO 3 Perform all construction tasks in compliance with applicable laws, regulations, codes and ethical practices in the construction field.
VLO 6 Communicate technical information to a variety of clients, supervisors and tradespersons to participate in the successful completion of construction projects.	
VLO 7 Identify and use industry-specific technologies to support construction projects.	



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 3 Execute mathematical operations accurately.</p> <p>EES 4 Apply a systematic approach to solve problems.</p> <p>EES 6 Locate, select, organize, and document information using appropriate technology and information systems.</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> <p>Attendance Students are only allowed to miss three classes (where attendance is recorded) without a documented explanation. One mark will be deducted from your overall grade for each undocumented explanation. The maximum deduction in overall grade is not to exceed 15%. Valid documented explanation include:</p> <ul style="list-style-type: none"> • Medical reason • Family emergency • Child care issue • Transportation problems • And any other reasonable explanation <p>The documented explanation has to be sent to the course professor by e-mail no later than three days from a missed class. A Doctor note, etc., is to be attached as a PDF file to your e-mail.</p>
Books and Required Resources:	<p>Understanding Construction Drawings (Drawing WBk) by Tom Stephenson Publisher: Northrose Educational Resources Edition: 5th edition ISBN: 978-1-998534-04-3</p>

Metric Scale by Metric Measuring Tape

Course Outcomes and Learning Objectives:

Course Outcome 1	Learning Objectives for Course Outcome 1
1) The graduate has reliably demonstrated the ability to develop and use strategies to enhance professional growth and ongoing learning in the construction/civil engineering field.	<ul style="list-style-type: none"> • keep abreast of changes in the construction and civil engineering fields • use appropriate self-management techniques (e.g., time management, stress management) • seek out and act upon constructive feedback to enhance work performance • seek assistance to resolve problems beyond own knowledge and skills
Course Outcome 2	Learning Objectives for Course Outcome 2
2) The graduate has reliably demonstrated the ability to complete duties and assist in monitoring that work is performed in compliance with contractual obligations, applicable laws, standards, bylaws, codes and ethical practices in the construction and civil engineering fields.	<ul style="list-style-type: none"> • assist in the review and preparation of typical contracts for compliance with basic legal principles and the tendering processes • apply ethical reasoning to social and contractual issues that evolve when implementing civil engineering projects* • read and interpret Ontario Provincial Standard Specifications (OPSS) and Ontario Provincial Standard Drawings. • Interpret and apply standard specification formats to construction documents
Course Outcome 3	Learning Objectives for Course Outcome 3
3) The graduate has reliably demonstrated the ability to collect, process and interpret technical data to produce written and graphical project-related documents.	<ul style="list-style-type: none"> • collect, interpret and check data by using systematic approaches in accordance with recognized standards and practices • select and use appropriate technologies to produce documents for civil engineering projects* • use relevant information to construct models for civil engineering projects* by using drawings and computer-assisted technologies • contribute to the development of strategies to collect technical data • participate as an active member of the team to measure, record and evaluate technical data • measure, record and evaluate technical data to ensure data meet industry standards and are within expected parameters for precision and accuracy • read the criteria for the project and identify appropriate information sources • report data and assist in proposing recommendations to



	<p>the appropriate team member</p> <ul style="list-style-type: none"> • use systematic approaches and paper-based and computerized techniques to collect civil engineering data • collect and organize project-related information in a retrievable manner <p>according to approved techniques</p> <ul style="list-style-type: none"> • Measure and calculate volumes, areas, and distances using manual and digital tools • Apply conversions between imperial and metric systems in layout and blueprint interpretation
Course Outcome 4	Learning Objectives for Course Outcome 4
4) The graduate has reliably demonstrated the ability to use industry-specific electronic and digital technologies to support construction and civil engineering projects.	<ul style="list-style-type: none"> • select and use industry-specific electronic and digital technologies to design projects, produce plans and to solve project-related problems (e.g., Computer-aided Design (CAD), hydrologic and hydraulic modeling software, 3D laser scanning technologies, etc. • visualize, manipulate and analyze spatial data using a variety of data sources and technologies
Course Outcome 5	Learning Objectives for Course Outcome 5
5) The graduate has reliably demonstrated the ability to communicate technical information to a variety of clients, supervisors and tradespersons to participate in the successful completion of construction projects.	<ul style="list-style-type: none"> • use industry specific terminology as it relates to building materials, projects and trades • read and interpret construction documents including drawings, specifications and schedules • use basic sketching skills to prepare preliminary and working drawings • prepare sketches and drawings in accordance with industry standards, formats, symbols and reference systems • Interpret blueprint elements for foundations, framing, finishes, and mechanical systems

Evaluation Process and Grading System:

Evaluation Type	Evaluation Weight
Assignments and Activities	30%
Chapter Quizzes	40%
Tests	30%

Date:

July 31, 2025

Addendum:

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

