



COURSE OUTLINE

CTT140

Prepared: Sam Spadafora Approved: Corey Meunier

Course Code: Title	CTT140: CONSTRUCTION BASICS
Program Number: Name	4097: CONS CARPENTRY TECH
Department:	PRE-TRADES & TECHNOLOGY
Semester/Term:	18W
Course Description:	<p>This course is intended to introduce the student to various activities commonly undertaken in construction and related engineering disciplines. The student will gain understanding in the use of materials, procedures, techniques, tools and equipment commonly encountered in construction engineering projects. Construction is one of the leading industries in Ontario. It takes teamwork to be successful in this profession. This course introduces you to some of the key skills for success in this field. These skills include AutoCAD, scheduling, scaffolding, concrete testing, surveying, estimating and woodworking.</p>
Total Credits:	3
Hours/Week:	3
Total Hours:	45
Course Evaluation:	Passing Grade: 50%, D
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 W Student has withdrawn from the course without academic penalty.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>

Evaluation Process and Grading System:

Evaluation Type	Evaluation Weight
Attendance	15%
Projects and Labs	50%
Tests and Assignments	35%

Books and Required Resources:

Construction Health & Safety Manual by Infrastructure Health & Safety
Edition: 2013
ISBN: 9780919665541

Course Outcomes and Learning Objectives:**Course Outcome 1.**

Use CAD to create and plot a basic drawing

Learning Objectives 1.

Recognize the hardware and software required for CAD
Understand the use and value of precision in CAD for engineering and construction
Use CAD to extract information from a drawing

Course Outcome 2.

Use basic mathematics to solve problems found in the construction industry.

Learning Objectives 2.

Review of basic algebra and geometry
Review of imperial measurement
Define perimeter, area and volume related to various geometric shapes
Review of the Pythagorean Theorem and its practical application
Apply basic mathematics to solve construction related problems

Course Outcome 3.

Describe methods and procedures required for scaffold erection and dismantling.

Learning Objectives 3.

List required personal protective equipment
Interpret related occupational health and safety legislation
Interpret material list requirements
Identify scaffolding system and components
Describe pre-installation inspection procedures for scaffolding system and components
Describe area layout procedures for scaffold base
Describe the procedures to check alignment during installation
Demonstrate basic installation procedures for scaffolding systems

Course Outcome 4.

Describe the methods and procedures required for selecting and mixing concrete ingredients and testing for slump and strength.

Learning Objectives 4.

Identify various types of cement and describe their use
Identify types of concrete admixtures and describe their uses
Identify concrete curing methods and materials
Identify concrete testing methods
Perform slump testing of concrete

Course Outcome 5.

Describe the use of survey measurement devices for construction.

Learning Objectives 5.

Identify surveying equipment, including: tripod, level, transit, laser level
Interpret the use of a tripod, level and rod
Define the term bench mark, back sight, foresight and height of instrument
Illustrate the set up of a level on a tripod
Illustrate the use of the instrument in calculating levels and heights
Describe the use of grade through the use of a bench mark

Course Outcome 6.

Understand the use of Estimating in construction.

Learning Objectives 6.

Identify different types of estimates
Recognize the different construction divisions

Course Outcome 7.

Construct a woodworking project according to specifications provided.

Learning Objectives 7.

Sizing material as per specifications on drawings provided
Training of the safe use of tools required to complete the project

Date:

Monday, December 18, 2017

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