

# MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

## COURSE OUTLINE

**DEPT. CRPT**

**COURSE NUMBER: 1150**

**NUMBER OF CREDITS: 3**

**Lecture: 1 Lab: 2 OJT 0**

<b>Course Title:</b>
Site Layout and Foundations

<b>Catalog Description:</b>
Site Layout and Foundations introduces students to the tools and skills necessary to lay out a building site and construction methods used to form and pour concrete footings for a building.

<b>Prerequisites or Necessary Entry Skills/Knowledge:</b>
None

**FULFILLS MN TRANSFER CURRICULUM AREA(S) (*Leave blank if not applicable*)**

Goal 1: Communication: \_\_\_\_ by meeting the following competencies:

Goal 2: Critical Thinking: \_\_\_\_ by meeting the following competencies:

Goal 3: Natural Sciences: \_\_\_\_ by meeting the following competencies:

Goal 4: Mathematics/Logical Reasoning: \_\_\_\_ by meeting the following competencies:

Goal 5: History and the Social and Behavioral Sciences: \_\_\_\_ by meeting the following competencies:

Goal 6: The Humanities and Fine Arts: \_\_\_\_ by meeting the following competencies:

Goal 7: Human Diversity: \_\_\_\_ by meeting the following competencies:

Goal 8: Global Perspective: \_\_\_\_ by meeting the following competencies:

Goal 9: Ethical and Civic Responsibility: \_\_\_\_ by meeting the following competencies:

Goal 10: People and the Environment: \_\_\_\_ by meeting the following competencies:

<b>Topics to be Covered (General)</b>
Builder's level, level-transit and laser level, and set-up of each
Establishing grades and elevations
Locating the building on a lot
Building layout
The function of batter boards
Components of concrete and their function
Forming for concrete pours
Placing and finishing concrete
Types of foundations for residential buildings

Student Learning Outcomes
Demonstrate the proper set-up of a builder's level, level-transit and laser transit.
Establish grades and elevations with a builder's level and/or a level-transit.
Lay out lines for a given lot.
Lay out building corners and pull building lines for a given building size.
Square building corners using the 3-4-5 method.
Square building corners using a builder's level.
Set batter boards and explain their function.
Demonstrate a proficiency in reading and interpreting plot plans, foundation plans and floor plans.
Describe how concrete is mixed and the function of each component.
Identify tools used to pour and finish concrete.
Identify defects that may occur in concrete and their cause.
Identify types of foundations and advantages of each.

  

<b>Is this course part of a transfer pathway:</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<small>*If yes, please list the competencies below</small>

Revised Date: 1/2022