Faculty members are required to have the outline submitted to the Academic Affairs Office. The course outline is the form used for approval of new courses by the Academic Affairs and Standards Council.

**DEPT. CRPT COURSE NUMBER: 1150**

**NUMBER OF CREDITS:** 3  **Lecture:** 1  **Lab:** 2

<table>
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<tr>
<th>Course Title:</th>
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<tr>
<td>Site Layout and Foundations</td>
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<th>Catalog Description:</th>
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<td>Introduce 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.</td>
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**FULFILLS MN TRANSFER CURRICULUM AREA(S)**

- **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:

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<tr>
<th>Prerequisites or Necessary Entry Skills/Knowledge:</th>
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**Topics to be Covered**

- 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**

1) Demonstrate the proper set-up of a builder’s level, level-transit and laser transit.

2) Establish grades and elevations with a builder’s level and/or a level-transit.

3) Lay out lines for a given lot.

4) Lay out building corners and pull building lines for a given building size.

5) Square building corners using the 3-4-5 method.

6) Square building corners using a builder’s level.

7) Set batter boards and explain their function.

8) Demonstrate a proficiency in reading and interpreting plot plans, foundation plans and floor plans.

9) Describe how concrete is mixed and the function of each component.

10) Identify tools used to pour and finish concrete.

11) Identify defects that may occur in concrete and their cause.

12) Identify types of foundations and advantages of each.

**Is this course part of a transfer pathway:** Yes ☐ No ☒

Revised Date: May 2020