

# MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

## COURSE OUTLINE

**DEPT. CRPT**

**COURSE NUMBER: 2271**

**NUMBER OF CREDITS: 3**

**Lecture: 3 Lab: 0 OJT 0**

<b>Course Title:</b>
Construction Drafting, Design and Blueprint Reading

<b>Catalog Description:</b>
Construction Drafting, Design and Blueprint Reading introduces the students to the basic principles of mechanical drafting, architectural drafting and the design of floor plans. Auxiliary views, cross sections and elevation views will also be studied and drawn. Students will have the opportunity to learn both hand drafting methods and computer aid drafting. The student will be taught the skills needed to accurately read and interpret a complete set of working drawings for residential and light commercial construction projects.

<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</b>
Reading a scale
Drawing layout styles
Standard dimensioning requirements
Drafting symbols
Drafting tools and drawing aids
Drawing plot plans, foundation plans, floor plans, elevations, sections and detail plans
Styles of residential houses
Kitchen and bath designs
Computer aided drafting software (CAD)

Working drawings done with CAD
Reading and interpreting blueprints or working drawings

<b>Student Learning Outcomes</b>
Identify and demonstrate proper use of scales used in architectural drafting.
Demonstrate use of drafting board and drafting tools to draw plot plans, foundation plans, floor plans, elevations and section drawing.
Identify symbols used in architectural drafting.
Identify building code requirements for residential construction projects.
Identify and discuss different styles of residential houses.
Identify various kitchen and bath designs and draw cabinet details of each
Demonstrate the use of CAD to draw plot plans, foundation plans, floor plans, elevations, section drawings and detail plans.
Produce blue prints using an Architectural plotter.

<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