

# MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

## COURSE OUTLINE

DEPT. MECH

COURSE NUMBER: 1115

NUMBER OF CREDITS: 2

Lecture: 1 Lab: 1 OJT: 0

### Course Title:

Computer Aided Design

### Catalog Description:

Computer Aided Design introduces the skills needed to design, draw, edit, and publish various industrial schematics using CAD software. Students will demonstrate the ability to edit and design mechanical, electrical, and structural schematics. Course time will include instruction on drawing setup and commands along with hands-on lab time working with and creating drawings.

### Prerequisites or Necessary Entry Skills/Knowledge:

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:

### Topics to be Covered

Understanding the workspace.

Basic drawing setup.

Create and edit drawings.

Basic drawing commands.

Drawing units and scales.

Models and layouts.

Line types and layers.

Dimensioning.

Coordinate systems
Grid and snap controls.
Templates.
Print and plot drawings.

### Student Learning Outcomes

Describe the workspace.
Perform drawing setup.
Utilize various drawing tools to create industrial schematics and prints.
Modify drawing features, objects, and drawings.
Publish industrial schematics and prints.

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

**\*If yes, please list the competencies below**

Revised Date: 1/26/2022