

www.CTEcreditMn.com

Course Learning Outcomes

To complete these requirements, students will:

1. Identify CAD workstation
2. Perform drawing startup
3. Perform drawing save functions
4. Perform CAD drawing commands
5. Perform CAD edit commands
6. Utilize CAD layering commands
7. Utilize CAD text styles
8. Utilize CAD dimensions styles
9. Construct and utilize CAD blocks
10. Plot CAD drawing

Assessments

Mastery of 80% or higher of the course learning outcomes will meet the college credit requirement.

Students will be assessed in four different ways.

- The first is through Instructor Observation.
- The second method of assessment is a drawing production test.
- The third assessment method is a written test.
- The fourth assessment requirement is that each student must submit a portfolio of work that demonstrates mastery of the following content areas:
 1. Use absolute, relative, and polar coordinates
 2. Construct basic CAD entities
 3. Apply object selection commands
 4. Apply entity modification commands
 5. Use drawing inquiry commands
 6. Examine filtered object selection command
 7. Describe AutoCAD display control commands
 8. Utilize grid, snap, and o-snap aids
 9. Describe mode settings and drawing aid features
 10. Determine plotting scale factors
 11. Evaluate layer concepts
 12. Explain CAD dimensioning techniques
 13. Create multiple dimensioning styles
 14. Apply text construction procedures
 15. Create multiple text styles
 16. Apply fundamental dimensioning techniques
 17. Describe the drawing merge concept
 18. Use printing and plotting procedures
 19. Create layer scheme
 20. Use prototype drawing procedures
 21. Use drawing merge commands
 22. Use layering techniques
 23. Evaluate named view concepts

24. Create multiple named views
25. Create prototype template(s)
26. Utilize display control commands
27. Examine 'grips' editing capabilities
28. Produce assorted CAD drawings in hard copy and electronic form
29. Create a basic symbol library
30. Utilize 'grips' editing capabilities

The portfolio should also contain a CD Rom or jump drive with at least one drawing for review electronically.

Following is an Instructor Check-off Sheet to address those content goals to be assessed through observation. The drawing Production Test and Written Test are available at www.techprepmn.com. Students must receive a score of 80 percent or higher on all four assessments (observation, production, written, and portfolio) in order to receive articulated college credit.

Text for reference:

Check with the college bookstore for the current textbook

Recommended Industry-Recognized Certifications or Comprehensive Assessments – High School & College

Certifications/ Assessments	Vendors	Other Information
CAD Mechanical Design II (662)	Precision Exams	www.precisionexams.com
Introduction to Engineering	Project Lead the Way (PLTW)	www.pltw.org
AutoCAD Certified User	AutoDesk	www.autodesk.com
AutoCAD Certified Professional	AutoDesk	