



## Engineering CAD Technician Certificate - 24 credits

Program Area: Engineering CAD Technology (Fall 2024)

\*\*\*REMEMBER TO REGISTER EARLY\*\*\*

### Program Description

The Engineering CAD Technician program prepares students to translate the ideas, sketches, and specifications of engineers and designers into workable plans which are used in product fabrication. Students learn to use engineering technology in determining exact specifications for new product design or modification, or redesign of present products. The course begins with instruction in basic drafting skills and advances to more complex technological areas. Major emphasis will be on the application and use of computer aided design.

This 24-credit Certificate seamlessly transfers to the Engineering CAD Technology Diploma (60 credits) and the AAS (67 credits).

### Required Courses

Number	Name	Credits	Term
CADE 1407*	AutoCAD	3	
CADE 1450*	Mechanical Details	3	
CADE 1468*	SolidWorks I	3	
CADE 1490*	Revit Industrial/Structural (BIM) Applications	3	
CADE 2472*	AutoCAD Design Project	3	
CADE 2492*	Revit Industrial/Mechanical (BIM) Applications	3	
INMG 1410*	Mechanical Print Reading	3	
Choose 3 credits from the following:			
INMG 1420*	Design Application Concepts I	3	
CADE 2407	Engineering Technology Internship (variable credits)		
MTCC 2504*	CAD CAM		
WLDG 1560	Gas Metal Arc Welding I		

### Total Credits

**24**

\*Requires a prerequisite or a concurrent course

This certificate is designed to provide a basic working knowledge of CAD and/or enhance the education of a student who may occasionally come in contact with engineering CAD technology through another related technical field of study. This certificate is not intended to take the place of either the two-year AAS degree or the two-year diploma degree from the Integrated Manufacturing – Engineering CAD Technology program.

### Program Outcomes

- Design products for manufacture using 2D and 3D standards
- Apply orthographic CAD design procedures to working drawings
- Perform advanced CAD software applications
- Create a capstone design project incorporating advanced CAD and industrial/mechanical applications

### Pre-program Requirements

Successful entry into this program requires a specific level of skill in the areas of English, mathematics, and reading. Program entry will depend, in part, on meeting the prerequisites listed below:

#### English/Reading:

- Eligible for ENGL 1106 - College Composition I, or
- Completion of ENGL/READ 0950/0955 (or equivalent or higher). ENGL/READ 0950/0955 may be taken concurrently with Semester I coursework.

#### Mathematics:

- A score of 250 or higher on the Arithmetic portion of the Accuplacer.

There are other ways to qualify. Visit [Course Placement](http://lsc.edu/course-placement) (lsc.edu/course-placement) to find out more.



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For interpretation of test results and selection of appropriate coursework; or general information about the program, admissions, financial aid, and getting started at LSC, contact the [professional advising team](mailto:advising@lsc.edu) (advising@lsc.edu) at 218-733-7601

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For more information about the Engineering CAD Technician Certificate including course descriptions, course prerequisites, the program report, and potential career opportunities, see the [program website](https://degrees.lsc.edu/cad-software/) (https://degrees.lsc.edu/cad-software/)

or

Contact Faculty Advisor,  
[Rick Steel](mailto:richard.steel@lsc.edu) (richard.steel@lsc.edu) at 218-733-6931



MINNESOTA STATE

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