



## Engineering CAD Technology **AAS Degree - 67 credits**

Program Area: Integrated Manufacturing CAD (Fall 2020)

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

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### Program Description

This 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, including the application of computer-aided design.

### Program Outcomes

- Illustrate orthographic viewing and dimensioning techniques
- Demonstrate section and auxiliary detailing
- Display dimensioning and tolerance techniques
- Outline an understanding of manufacturing principles and practices
- Create mechanical component details
- Illustrate sheet metal development drawings
- Demonstrate basic through advanced principles of CAD applications
- Create and engineer electrical/electronic drawings
- Create and engineer industrial piping layouts
- Create and engineer fluid power drawings
- Present technical illustrations using 3-dimensional design
- Provide a cumulative final design project
- Create engineering drawings using advanced CAD applications

### Required Courses

Number	Name	Credits	Term
CADE 1468	SolidWorks I	3	
INMG 1400	Introduction to 8		



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### **Program Articulation**

This program has an articulation agreement in place that allows students to transfer most (if not all) of their credits earned, should the graduate decide to pursue a bachelor's degree from Minnesota State University, Moorhead with a BS in Operations Management.

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### **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:**

- A score of 250 or higher on the reading portion of the Accuplacer, or
- Completion of ENGL/READ 0950 or 0955 (or equivalent course or higher). ENGL/READ 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 [LSC Accuplacer](http://lsc.edu/Accuplacer) (lsc.edu/Accuplacer) to find out more.

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:pat@lsc.edu) (pat@lsc.edu) at 218-733-7601

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