



## Automated Machining Certificate - 16 credits

Program Area: Integrated Manufacturing Machine Tool (Fall 2018)

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

### Program Description

This 16 credit certificate provides advanced training for people already working as machinists. It gives them a chance to improve their skills with the latest fully-automated machine tools available today. The CNC machines will be set up and programmed keeping lights out machining in mind. CAM will also be used to create programs for these machines.

### Required Courses

Number	Name	Credits	Term
MTCC 2600	CNC Automation Programming	1	
MTCC 2602	Swiss Automation	3	
MTCC 2604	CNC Mill/Turn Application	4	
MTCC 2606	CNC 4 Axis Horizontal Automation	4	
Elective Credits	<i>Choose 4 elective credits from any MTCC course.</i>	4	

**Total Credits** **16**

\*Requires a prerequisite or a concurrent course

### Program Outcomes

- Manufacture mating parts and assemblies
- Perform set ups and use milling fixtures to manufacture parts
- Setup and machine compound angles using various processes
- Build jigs and fixtures to complete manufacturing processes
- Manufacture and inspect quality products

### Pre-program Requirements

Completion of an AAS or Diploma degree in the Machine Technology program and/or instructor's consent.

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 78 or higher on the reading comprehension 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 33 or higher on the **Elementary Algebra Skills** portion of the Accuplacer, or
- Completion of MATH0520 (or equivalent course or higher), and with a grade of "C" or better. MATH 0520 may be taken concurrently with Semester I coursework.

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 at: [pat@lsc.edu](mailto:pat@lsc.edu) or 218-733-7601



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For more information about the Automated Machining Certificate including course descriptions, course prerequisites, and gainful employment statistics, see program website: <https://degrees.lsc.edu/cnc-machine/>

**- OR -**

Contact Faculty Advisors, Max Udovich: [m.udovich@lsc.edu](mailto:m.udovich@lsc.edu) or 218-733-7732 or  
Randy Antonich: [randy.antonich@lsc.edu](mailto:randy.antonich@lsc.edu) or 218-733-7641



MINNESOTA STATE

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