



Manual Machinist Certificate - 30 credits

Program Area: Integrated Manufacturing Machine Tool (Fall 2019)

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

Program Description

This 30-credit certificate trains students to work in a maintenance environment. Students will learn complex setups and machining and inspection of parts made on vertical and horizontal mills, lathes, and grinders. Designing and building jugs and fixtures necessary to these parts will be covered as well as the materials to use in their construction.

Program Outcomes

- Manufacture mating parts and assemblies
- Perform setups and use milling fixtures to manufacture parts
- Set up and machine compound angles using various processes
- Build jugs and fixtures to complete manufacturing processes
- Manufacture and inspect quality product

Required Courses

Number	Name	Credits	Term
INMG 1400	Introduction to Manufacturing Technology	4	
INMG 1410*	Mechanical Blueprint Reading	3	
MTCC 1600	Engineering Materials	1	
MTCC 1603*	Turning	2	
MTCC 1604*	Milling	2	
MTCC 1608	Toolroom Machining I	3	
MTCC 1505	Surface Grinder I	2	
MTCC 1520	Cylindrical Grinding	1	
MTCC 1606*	Horizontal Milling and Indexing	1	
MTCC 1614*	Milling II	2	
MTCC 1616*	Turning II	2	
MTCC 1618*	Toolroom Machining II	3	
MTCC 1622*	Maintenance Machining	3	
MTCC 2460	Tool and Cutter Grinding	1	

Total Credits **30**

*Requires a prerequisite or a concurrent course

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 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 MATH 0520 (or equivalent course or higher). 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](mailto:pat@lsc.edu) (pat@lsc.edu) or 218-733-7601



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For more information about the Manual Machinist Certificate including course descriptions, course prerequisites, and gainful employment statistics, see the [program website](https://degrees.lsc.edu/machinist/) (<https://degrees.lsc.edu/machinist/>)

OR

Contact Faculty Advisor [Max Udovich](#) or 218-733-7732



MINNESOTA STATE

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