



Machine Technology CNC Programmer Diploma - 64 credits

Program Area: Integrated Manufacturing Machine Tool (Fall 2024)

REMEMBER TO REGISTER EARLY

Program Description

The CNC Machine Programmer program is designed to prepare the student for employment as a CNC Machinist/-Programmer. Skill development includes performing basic floor programming to produce a part to specifications, setup and operation of CNC machines, instruction in inspection and statistical process control, and program parts designed using a CAD/CAM computer system.

Program Outcomes

- Perform a basic setup and operate different types of manual metal working machines
- Write basic programs and operate different types of CNC metal working machines
- Perform mathematical calculation of shop problems
- Use basic CAD and CAM computer programs to generate CNC programs to be used on machine tools
- Interpret all basic drawings and blueprints
- Build basic machine parts and tools

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 ENLG 1106 – College Composition I, 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 [Course Placement](http://lsc.edu/course-placement) (lsc.edu/course-placement) to find out more.

Required Courses

Number	Name	Credits	Term
CADE 1468*	SolidWorks I	3	
INMG 1400	Introduction to Manufacturing Technology	4	
INMG 1410*	Mechanical Print Reading	3	
INMG 1420	Design Application Concepts I	3	
WLDG 1560	Gas Metal Arc Welding I	3	
MTCC 1603*	Turning	2	
MTCC 1604*	Milling	2	
INMG 1412*	Advanced Mechanical Blueprint Reading	3	
MTCC 1432*	Quality Methods	2	
MTCC 1505*	Surface Grinder	2	
MTCC 1620	CNC Basic Programming	2	
MTCC 2504*	CAD CAM	3	
MTCC 1600	Engineering Materials	1	
MTCC 2502*	CNC Turning	3	
MTCC 2540*	CNC Machine Center 3 Axis	3	
MTCC 2560*	Advanced CNC Mill 4 Axis	3	
MTCC 2562*	CNC Mill/Turn Live Tooling	3	
MTCC 2564*	CNC Horizontal 4 Axis	3	
COMM 1601	Interviewing Procedure and Practice	1	
INMG 1422*	Design Application Concepts II	3	
MTCC 1520*	Cylindrical Grinding	1	
MTCC 1530*	Water Jet Cutting Processes	2	
MTCC 2500*	CNC Mill Conversational	2	
MTCC 2570	Wire EDM	2	
MTCC 2572*	Swiss Automatic	3	
MTCC 2506*	Advanced CAM	2	

Total Credits

64

*Requires a prerequisite or a concurrent course



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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) or 218-733-7601

For more information about the Machine Technology CNC Programmer Diploma including course descriptions, course prerequisites, the program report, and potential career opportunities, see the [program website](https://degrees.lsc.edu/cnc-programmer/) (https://degrees.lsc.edu/cnc-programmer/)

or

Contact Faculty Advisor [Nathan Zobel](mailto:nathan.zobel@lsc.edu) (nathan.zobel@lsc.edu) or 218-733-7732



MINNESOTA STATE

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