

### Program Information

The Anoka Technical College Machine Technology Certificate 2 is a 16-credit program that prepares students with mid-level skills to set up and operate the following equipment: manual mills, lathes and surface grinding. Inputting of programs, offsets and the use of cutter compensation on CNC mills and lathes are also covered.

Program graduates are skilled in the areas of solid modeling and blueprint generation, GD&T, statistical process control, math and advanced inspection practices.

Graduates working in this field are expected to perform basic setup and operation of manual and CNC lathes, mills and grinders. They are able to inspect and produce parts to the desired dimensions, with proper supervision.

### Program Learning Outcomes

By completing this program, students will achieve the following learning outcomes.

1. The student will demonstrate machine skills and practices consistent with the manufacturing industry.
2. Exhibit safety principles and practices in a manufacturing environment.
3. Communicate effective use of machine shop theory and process terminology.
4. Work efficiently as a member in a machine shop environment to manage time and meet project deadlines.
5. Work effectively as a member of a team while accepting constructive criticism.

### Admission Requirements

Must successfully complete Machine Technology certificate 1.

### Course Prerequisites

Some courses may require appropriate test score or completion of basic math, basic English, and/or reading courses with a "C" or better.

### Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS), diploma, or certificate must meet the cumulative grade point average (GPA) of 2.0 or higher.

### Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s\_agreements.php?numResults=25&archive=false&from\_inst=70&from\_prog=&to\_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx) (www.anokatech.edu/BecomeStudent/Transfers.aspx)

### Industry Information

The machinist is a skilled metal worker who produces metal parts by using machine tools and hand tools. Training and experience enable the machinist to plan and carry through all the operations needed

to turn out a finished machine product and to switch readily from one kind of product to another. The machinist's background and knowledge enables him/her to turn a block of metal into an intricate, precise part.

All options are an art as well as a skill, and are considered to be demanding occupations. There is a great variety in the construction of dies and molds, depending on the design of a part, the type of materials used, the ingenuity of the designer, and the knowledge and skill of the die and mold maker, who must machine intricate components of various tooling to tolerances expressed in fractions of one-thousandths of an inch.

### Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](https://mn.gov/deed/job-seekers/job-outlook/) (https://mn.gov/deed/job-seekers/job-outlook/).

### Gainful Employment

Follow this link for a [Gainful Employment Report](#).

### Technical Education: 16 Credits

- MACH 1200 Advanced Machining..... 3
- MACH 1220 Grinding..... 2
- MACH 1231 Blueprint Design/CAD II..... 1
- MACH 1240 Geometric Dimensioning & Tolerancing ..... 3
- MACH 1250 CNC Machining..... 2
- MACH 1261 CNC Programming I..... 3
- MACH 1275 Quality Standard..... 1

*Also see: CNC Design & Manufacturing Technology AAS, Advanced CNC Machine Technology diploma and Machine Technology certificate 1 and 3*

### Start Dates

Fall Semester.....August  
Spring Semester.....January

### Faculty Contact

[Matt Rogers](#)..... 763-576-4088  
[Jesse Oldenburg](#)..... 763-576-4065  
[Brendon Paulson](#)..... 763-576-4243  
[Jerry Showalter](#)..... 763-576-4043

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or [EnrollmentServices@anokatech.edu](mailto:EnrollmentServices@anokatech.edu)

### Sample Program Sequence

Full Time

First Semester	
1 <sup>st</sup> YEAR	MACH 1200..... 3
	MACH 1220..... 2
	MACH 1231..... 1
	MACH 1240..... 3
	MACH 1251..... 3
	<b>TOTAL</b> ..... 16

