



CNC Programmer (31-444-3)

Technical Diploma
Effective 2026/2027

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here. All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan. Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.). More detailed scheduling information for this program can be found at <https://www.gtc.edu/cnc>. Please see your academic advisor for additional information.

E-D = Elkhorn/days, F=Fall, S=Spring, SU=Summer

| Term | Course Number | Credits | Course Title | Requisites (prereq- before/ coreq-with) | Notes | E-D |
|------|----------------------------|---------|---|---|---|-----|
| 1 | 890-155 | 1 | Gateway to Success (G2S) | | • Students are required to take this course in their first semester of enrollment. Please see an advisor for details. | F |
| 1 | *444-331 | 3 | CNC Machining Technology | | • Faculty have identified this milestone course as providing a strong foundation for success throughout the program. | F |
| 1 | *444-337 | 3 | Fund. of Blueprint and Shop Safety | | • Faculty have identified this milestone course as providing a strong foundation for success throughout the program. | F |
| 1 | *444-339 | 3 | Gauging and Quality Control | | | F |
| 2 | *444-316 | 3 | Foundations of CNC Machining | | | S |
| 2 | *444-334 | 3 | Fund. of CNC Milling Applications | | | S |
| 2 | 804-370 | 2 | Mathematics I, Applied | Prereq: 854-760 | • Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details. • A hand calculator capable of trigonometric functions is required for this course; the cost is approximately \$25. | S |
| 3 | *444-307 OR *444-308 | 3 | Fund. of Swiss CNC Turning OR Fund. of Live Tooling | | | SU |
| 3 | *444-306 OR *444-309 | 3 | Swiss CNC Setup and Operation OR Live Tooling Setup and Operation | | | SU |
| 3 | *444-333 | 3 | Fund. of CNC Turning Applications | Prereq: 444-331 | | SU |
| 4 | *444-335 | 3 | CNC Lathe Set-Up | | | F |
| 4 | *444-336 | 3 | CNC Mill Set-Up | | | F |
| 5 | *444-311 | 3 | CNC Lathe Process | Prereq: 444-335 | | S |
| 5 | *444-314 | 3 | CNC Mill Process | Prereq: 444-336 | | S |

Minimum Program Total Credits Required: 39

(*) Students must achieve a combined average of 2.0 ("C") or above for this major course to meet graduation requirements.

CNC Programmer (31-444-3)

The *CNC Programmer* technical diploma program gives an overview of essential machine shop practices including machine safety, blueprint reading and part inspection methods. CNC Machine programming, set-up and operation will also be covered in-depth. Graduates of this program will have the skills necessary for entry-level employment in a machine shop setting. Machinists already employed will find the program a great way to improve their skill set. Special emphasis will be placed on learning the skills necessary to transform raw material into a finished part. Students will be able to apply the techniques learned in lectures within a machine shop setting. Overall this program is intended to introduce students to many different aspects within a machine shop setting.

Program Learning Outcomes

Graduates will be able to:

- 1 Apply basic safety practices in the machine shop.
- 2 Interpret industrial/engineering drawings.
- 3 Apply precision measuring methods to part inspection.
- 4 Perform basic machine tool equipment set-up and operation.
- 5 Perform programming, set-up, and operation on CNC milling centers.
- 6 Perform programming, set-up, and operation on CNC turning centers.

Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- 1 Communication Competence
- 2 Critical Thinking and Problem Solving
- 3 Professionalism and Career Management
- 4 Teamwork and Collaboration
- 5 Cultural Competence
- 6 Technology Competence

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. The District reserves the right to modify, cancel, or relocate course offerings in response to factors such as low enrollment, resource availability, or other relevant considerations to ensure high-quality educational experiences. Students will be notified in writing and are encouraged to meet with their Academic Advisor to adjust their academic plan.

Admission Requirements

- 1 Students must submit an application and pay \$30 fee.
- 2 Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

Graduation Requirements

- 1 Minimum 39 credits with a cumulative GPA of 2.0 or above.
- 2 *Average of 2.0 ("C") or above for these major courses.
- 3 Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

Notes

- 1 Safety glasses (marked Z-87) are required in labs. If prescription glasses are needed, allow a minimum of 90 days before the program start to obtain prescription and glasses.

EQUAL OPPORTUNITY EMPLOYER AND EDUCATOR/EMPLEADOR Y EDUCADOR QUE OFRECE IGUALDAD DE OPORTUNIDADES