



Effective 2012/2013

Career Cluster ►



Career Pathway ►

Production

CNC PRODUCTION TECHNICIAN

(31-444-2)

Technical Diploma

Offered at: Racine Campus

| △ Suggested Sequence | ✓ | Course Number | Course Title | Requisites | Credits | Hrs/Wk Lec - Lab |
|----------------------|---|---------------|-----------------------------------|---|---------|------------------|
| Semester 1 | | 420-342 * | CNC Intro/Support Equip Basic | Coreq: 420-345; 623-147 | 1 | 0-2 |
| | | 420-344 * | CNC Offsets and Operations | Coreq: 420-345 | 1 | 2-0 |
| | | 420-345 * | Gauging / Inspection | Coreq: 421-376; 804-370 | 2 | 2-2 |
| | | 421-376 * | Blueprint Reading | | 2 | 2-2 |
| | | 444-331 * | CNC Machining Technology | Coreq: 420-342 | 3 | 3-3 |
| | | 444-332 * | CNC Production Applications | Prereq: 420-342 Coreq: 420-344; 444-331 | 2 | 2-2 |
| | | 623-147 * | Manufacturing Shop Safety | | 1 | 1-0 |
| | | 623-183 * | Statistical Process Control/CT | | 1 | 1-0 |
| | | 801-302 | Speaking Principles | | 1 | 2-0 |
| | | 804-370 | Mathematics I, Applied | Prereq: 854-760 (See Note 1) | 2 | 4-0 |
| Semester 2 | | 421-316 * | Blueprint Reading, Advanced | Prereq: 421-376 | 2 | 2-2 |
| | | 444-333 * | Fund. of CNC Turning Applications | Prereq: 444-331 Coreq: 421-316; 804-371 | 3 | 2-4 |
| | | 444-334 * | Fund. Of CNC Milling Applications | Prereq: 444-331 Coreq: 421-316; 804-371 | 3 | 2-4 |
| | | 444-335 * | CNC Lathe Set-Up | Coreq: 444-333 | 3 | 2-4 |
| | | 444-336 * | CNC Mill Set-Up | Coreq: 444-334 | 3 | 2-4 |
| | | 801-301 | Writing Principles | Prereq: 851-760 (See Note 1) | 1 | 2-0 |
| | | 804-371 | Mathematics II, Applied | Prereq: 804-370 | 1 | 2-0 |

Program Total Required 32

△ Courses may be taken out of suggested sequence as long as requisites have been met.

Federal regulations require disclosure of the following information for this program:

| Books and Supplies | Resident Tuition and Fees | Median Loan Debt ¹ | On-time Graduation Rate ² | U.S. Department of Labor Standard Occupational (SOC) Code & Occupational Profile – available at http://www.onetonline.org |
|--------------------|---------------------------|-------------------------------|--------------------------------------|---|
| \$300 | \$4,820 | \$0 | 8.3% | Numerical Tool & Process Control Programmer (51-4012) & CNC Machine Tool Operators (51-4011) |

¹ **Median Loan Debt:** Based on eligibility, students can receive loans to help pay for the total cost of attending college. The cost is comprised of tuition and fees, books and supplies, transportation costs, room and board, and miscellaneous personal expenses. Therefore, medial loan debt may be more than the listed tuition, fees, books, and supplies cost.

² **On-time Graduation Rate:** Dependent upon students' choice to attend college part-time or full-time. Students decide to attend college part-time for a number of reasons including work schedule/demands and family responsibilities. 76 percent of students at Gateway attend part-time, therefore taking longer to complete their chosen program of study.



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PROGRAM DESCRIPTION

CNC Production Technician is a well rounded approach to becoming a CNC Technician. We teach the skills necessary for students to become qualified set-up technicians. Students are taught the basics of G-Code programming, proper M-Code usage, and the required steps to efficiently set fixture and tool offsets. Students create their own CNC programs and DNC to the proper machine tool. An excellent overall knowledge of CNC Controls is achieved by working on several different brand name controls. Overall, students will be proficient at programming, set-up, operation, editing, and part inspection.

PROGRAM LEARNING OUTCOMES

Graduates of the CNC Production Technician Technical Diploma Program should be able to:

1. Develop an inspection plan and inspect simple parts using precision tools and techniques. Prepare reports on the compliance of the parts.
2. Keep the duty station clean and safe for work. Keep the tools, workbenches, and manual equipment clean, maintained, and safe for work.
3. Interpret blueprints to determine part details and specifications.
4. Set up and operate a CNC milling center.
5. Set up and operate turning centers.
6. Determine common programming codes and program format.

CORE ABILITIES

Gateway believes students need both technical knowledge and skills and core abilities in order to succeed in a career and in life. The following nine core abilities are the general attitudes and skills promoted and assessed by all Gateway programs. All Gateway graduates should be able to:

- | | |
|--|---|
| 1. Act responsibly | 6. Respect themselves and others as a member of a diverse community |
| 2. Communicate clearly and effectively | 7. Think critically and creatively |
| 3. Demonstrate essential comp. skills | 8. Work cooperatively |
| 4. Demonstrate essential math skills | 9. Value learning |
| 5. Develop job seeking skills | |

ADMISSION REQUIREMENTS

1. Students must submit an application & \$30 fee.
2. Students must complete reading, writing, and math placement testing.
3. Students must submit official high school, GED, or HSED transcript.

GRADUATION REQUIREMENTS

1. 32 Credits with an average of 2.0 or above.
2. *Average of 2.0 ("C") or above for these major courses.

For a complete list of Graduation Requirements check the Student Handbook.

NOTES

1. A satisfactory placement test score (or successful remediation) is required prior to enrollment. See a counselor for details.
2. Safety glasses (marked Z-87) are required in labs. If prescription glasses are needed, allow a minimum of 90 days.
3. A hand calculator capable of trigonometric functions is required for 804-370; the cost is approximately \$25.
5. Any course may be taken prior to entry in the program, assuming prerequisites and corequisites have been satisfied (or waived with department approval).

OTHER INFORMATION

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for a period of two years or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult the Master Class Schedule for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

**EQUAL OPPORTUNITY/ACCESS EDUCATOR / EMPLOYER
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You may call Student Services at (262) 767-5300 (Burlington), (262) 741-8300 (Elkhorn), (262) 564-2300 (Kenosha), or (262) 619-6300 (Racine) for additional information. For a complete list of course descriptions (and possible online courses) for this program, please consult Web Advisor on our web page at www.gtc.edu.

My counselor is _____ My counselor's contact information is _____.