

CNC Production Technician & CNC Programmer





SC Johnson iMET Center

2320 Renaissance Blvd, Sturtevant, WI 53177

Elkhorn Campus

CNC Operator
Certificate

CNC Production
Technician
Technical Diploma

CNC Programmer
Technical Diploma



How do I become a CNC Operator?

Apprenticeship

- **Youth Apprenticeship**
 - Gain a job at a manufacturing shop
 - Learn while you are working
- **Registered Apprenticeship**
 - Learn while you are working
 - Earn a technical diploma in CNC Production or CNC Programmer

Certificate

- **CNC Operator**

Technical Diploma

- **Technical Diploma in**
 - CNC Production
 - OR
 - CNC Programmer
- **Technical Skills classes**

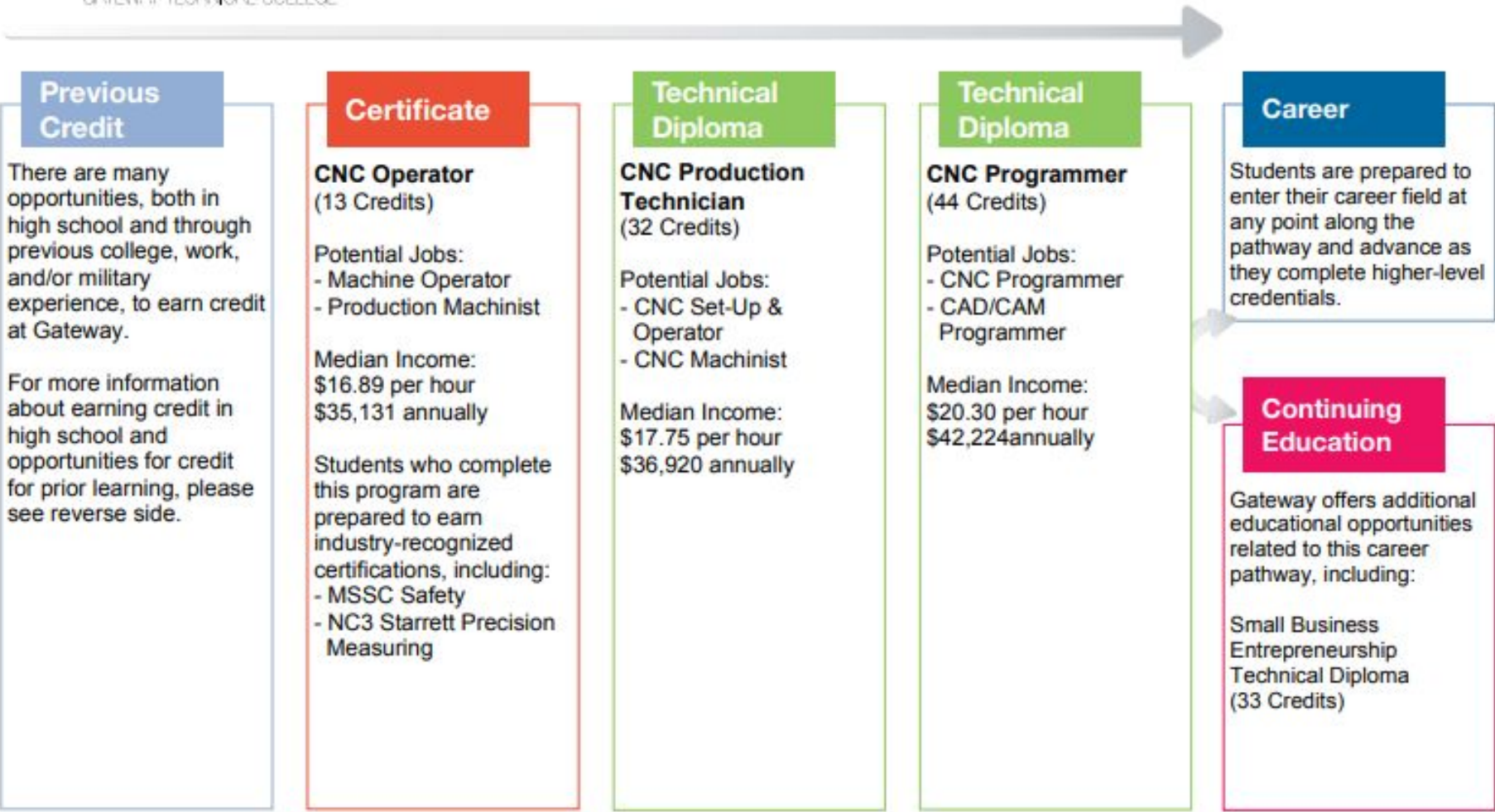
Did you know?

- 3D Printers are actually CNC machines
- Some CNC machines are small enough to use at home
- One type of CNC machine uses water to cut material, it's called a water jet cutter
- CNC machines work similar to programming robots

CAREER PATHWAY

GATEWAY TECHNICAL COLLEGE

CNC



Previous Credit

There are many opportunities, both in high school and through previous college, work, and/or military experience, to earn credit at Gateway.

For more information about earning credit in high school and opportunities for credit for prior learning, please see reverse side.

Certificate

CNC Operator
(13 Credits)

Potential Jobs:
- Machine Operator
- Production Machinist

Median Income:
\$16.89 per hour
\$35,131 annually

Students who complete this program are prepared to earn industry-recognized certifications, including:
- MSSC Safety
- NC3 Starrett Precision Measuring

Technical Diploma

CNC Production Technician
(32 Credits)

Potential Jobs:
- CNC Set-Up & Operator
- CNC Machinist

Median Income:
\$17.75 per hour
\$36,920 annually

Technical Diploma

CNC Programmer
(44 Credits)

Potential Jobs:
- CNC Programmer
- CAD/CAM Programmer

Median Income:
\$20.30 per hour
\$42,224 annually

Career

Students are prepared to enter their career field at any point along the pathway and advance as they complete higher-level credentials.

Continuing Education

Gateway offers additional educational opportunities related to this career pathway, including:

Small Business Entrepreneurship Technical Diploma
(33 Credits)

What will you learn?

Certificate: CNC OPERATOR (61-444-3)

Credits: 13 Credits

Description: Students completing the first semester technical courses of the two semester CNC Production Technician technical diploma will be conferred with the CNC Operator certificate. The certificate is designed to give graduates the entry level skills needed to be a CNC operator, responsible for production runs. All courses in this certificate may be applied to the CNC Production Technician technical diploma.

Related program: CNC Production Technician

Campuses Available: Elkhorn Campus and SC Johnson iMET Center

REQUIRED COURSES

✓	<u>Semester One</u>	<u>Credits</u>	<u>Prerequisite</u>	<u>Corequisite</u>
	444-339 Gauging and Quality Control	3		
	444-337 Fund. of Blueprint and Shop Safety	3		
	444-338 Fund. of CNC Machine Apps.	4		444-337
	444-331 CNC Machining Technology	3		444-337
	Total Credits	13		

What will you learn?

CNC Production Technician (31-444-2)

Technical Diploma

Effective 2020/2021

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.

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

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	E-D
1	890-155	1	📍 Gateway to Success (G2S)		F
1	*444-331	3	🎓 CNC Machining Technology	Coreq: 444-337	F
1	*444-337	3	🎓 Fund. of Blueprint and Shop Safety		F
1	*444-338	4	Fund. of CNC Machine Application	Coreq: 444-337	F
1	804-370	2	Mathematics I, Applied ¹	Prereq: 854-760	F
2	*444-339	3	Gauging and Quality Control ⁴		S
2	*421-316	2	Blueprint Reading, Advanced	Prereq: 444-337 Coreq: 801-301; 804-371	S
2	*444-335	3	CNC Lathe Set-Up		S
2	*444-336	3	CNC Mill Set-Up		S
2	801-301	1	Writing Principles ¹	Prereq: 851-756	S
2	804-371	1	Mathematics II, Applied	Prereq: 804-370	S
3	*444-333	3	Fund. of CNC Turning Applications	Prereq: 444-331 Coreq: 421-316; 804-371	SU
3	*444-334	3	Fund. Of CNC Milling Applications		SU
3	801-302	1	Speaking Principles		SU

Minimum Program Total Credits Required: 33

What will you learn?

CNC Programmer (31-444-3)

Technical Diploma

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1	*444-331	3	🎓 CNC Machining Technology	Coreq: 444-337	F
1	*444-337	3	🎓 Fund. of Blueprint and Shop Safety		F
1	*444-338	4	🎓 Fund. of CNC Machine Application	Coreq: 444-337	F
1	804-370	2	Mathematics I, Applied ¹	Prereq: 854-760	F
2	*444-339	3	Gauging and Quality Control ⁴		S
2	*421-316	2	Blueprint Reading, Advanced	Prereq: 444-337; Coreq: 801-301; 804-371	S
2	*444-335	3	CNC Lathe Set-Up		S
2	*444-336	3	CNC Mill Set-Up		S
2	801-301	1	Writing Principles ¹	Prereq: 851-756	S
2	804-371	1	Mathematics II, Applied	Prereq: 804-370	S
3	*444-333	3	Fund. of CNC Turning Applications	Prereq: 444-331 Coreq: 421-316; 804-371	SU
3	*444-334	3	Fund. of CNC Milling Applications		SU
3	*444-307	3	Fund. of Swiss CNC Turning		SU
	OR	3	OR	Prereq: 444-335; 444-336	SU
	*444-308		Fund. of Live Tooling		
3	*444-306	3	Swiss CNC Setup and Operation		SU
	OR	3	OR	Prereq: 444-335; 444-336	SU
	*444-309		Live Tooling Setup and Operation		
4	*444-311	3	CNC Lathe Process	Prereq: 444-335; 444-336	F
4	801-302	1	Speaking Principles		F
4	*444-314	3	CNC Mill Process	Prereq: 444-335; 444-336	F

Minimum Program Total Credits Required: 45

Interested in Getting Started Now?

In High School...

- Youth Apprenticeship
- Gateway courses
 - CNC Machining Technology
 - Fundamentals of CNC Milling Apps
 - Fundamentals of Blueprint and Shop Safety
 - Gauging and Quality Control

In High School

- [CNC Operator Academy](#)
- [Smart Manufacturing Academy](#)



EXPLORE!



Ready, set, learn about coding!

Directions

- Watch Haas' 9 Lines of Code for CNC machining
- Graph coordinates from worksheet on your graphing paper; **be sure to send us a picture of the design!**
- If you are interested in learning what G code functions, you can watch this video from Haas

Supplies

- Ordered pair worksheet
 - Print page 1 only
 - PDF will be sent from your teacher
- Pen / pencil