

www.clcillinois.edu/programs/cnc

CERTIFICATE PROGRAMS

Engineering, Math and Physical Sciences
Division, Room T302, (847) 543-2044

CNC PROGRAMMING/OPERATIONS (Certificate) Plan 24NG

This certificate program provides knowledge and skills needed for entry level employment in CNC programming operating. Students will perform operations and programming on FANUC and HAAS CNC controlled machine tools. Advanced placement and NIMS credentialing may be arranged for experienced machinists.

FIRST SEMESTER

MTT 112	Machining Principles <i>or</i>	12
MTT 210	Machine Shop II	3
MTH 115	Applied Mathematics II	3
EGR 121	Engineering Graphics	3
ENG 120	Technical Composition I <i>or</i>	3
ENG 121	English Composition I	3

SECOND SEMESTER

CNC 115	CNC Programming I	3
CNC 110	CNC Operations I	3

SUMMER SESSION

CNC 210*	CNC Operations II	3
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THIRD SEMESTER

CNC 215 ***	Advanced Mill Programming <i>or</i>	3
CNC 216 **	Advanced Lathe Programming	3

FOURTH SEMESTER

CNC 217***	Introduction to Wire EDM Machining	3
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SUMMER SESSION

MTT 211*	Jig and Fixture Design	3
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Total Hours for Certificate 30

* Summer only

** Fall only

*** Spring only

Prerequisite Required

NIMS LEVEL 1 CNC OPERATOR/SETUP TECHNICIAN (Certificate) Plan 24NH

This certificate program provides the knowledge, skills, and abilities for entry level employment in the field of Computerized Numerical Control (CNC) machining as a CNC Mill or Lathe Operator and/or Setup technician. Students will learn basic blueprint reading, metal cutting principles and tools, and the operation of modern FANUC and HAAS CNC controlled vertical machining centers and turning centers. Each student will be required to demonstrate competency based on the National Institute for Metalworking Skills (NIMS) nationally validated skill standards. Lecture and lab time will focus on the interpersonal, technical, and employment skills necessary to succeed in the trade. Testing for the following NIMS Level I credentials will be administered during the coursework in which the student will be required to complete a performance test (producing precision parts on the machines) and/or a related theory exam: (1) Measurement, Materials and Safety, (2) Job Planning, Benchwork, and Layout, (3) CNC Milling: Operations, (4) CNC Turning: Operations, (5) CNC Milling: Programming, Setup, and Operations, and (6) CNC Turning: Programming, Setup, and Operations.

FIRST SEMESTER

MTT 112	Machining Principles	6
MTT 110	Machine Trades Blue Print Reading	3

SECOND SEMESTER

CNC 110	CNC Operations I	3
CNC 115	CNC Programming I	3

SUMMER SESSION

CNC 210*	CNC Operations II	3
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THIRD SEMESTER

EWE 120	Job Readiness Skills	2-5
EWE 220	Cooperative Work Experience I	1
		1-4

Total Hours for Certificate 17-20

* Summer only

TYPICAL JOBS

- Machinist
- CNC Operator
- CNC Programmer
- Tool and Die Maker
- CNC Setup Technician

EMPLOYERS

- Edmik
- Smalley Steel Ring
- NyproMold
- Qualitek Manufacturing
- Ludlow Manufacturing
- Morton Manufacturing
- JST Corporation
- Dynamax Corporation

GETTING STARTED

For steps on how to apply and register, visit www.clcillinois.edu/admission.

Grayslake • Vernon Hills • Waukegan • Online

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NIMS LEVEL 1 CNC OPERATOR (Certificate) Plan 24NJ

This certificate provides the knowledge, skills, and abilities for entry level employment in the field of CNC machining as a CNC Mill or Lathe Operator. Students will learn the operations of a modern FANUC and HAAS CNC controlled vertical machining center and turning center. Each student will be required to demonstrate competency based on the National Institute for Metalworking Skills (NIMS) nationally validated skill standards. Lectures and lab time will focus on the interpersonal, technical, and employment skills necessary to succeed in the trade. Testing for the Level 1 NIMS CNC Mill Operator and Lathe Operator credential will be administered during the coursework in which the student will be required to complete both a performance test (producing precision parts on the machines) and a related theory exam.

FIRST SEMESTER	6
MTT 112 Machining Principles	3
MTT 110 Machine Trades Blueprint Reading	3
SECOND SEMESTER	3
CNC 110 CNC Operations I	3
Total Hours for Certificate	9

CONTACT INFO

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May 2020
Per 2020-21 catalog

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