

COMPUTER NUMERIC CONTROL CERTIFICATES

<http://www.sandburg.edu/Academics/Degree-Certificates/CNC%20Operator%20Certificate/index.html>

CNC Operator Certificate

The program will train graduates for entry level positions in the machine tool area as represented in the Manufacturing career cluster, Production pathway. Positions could include: Grinding, Lapping and Buffing Machine Operator, Milling Machine setter, Set-Up Operator and Machine Operator. The program is being proposed to address the anticipated immediate need for trained workers for the Galesburg and area manufacturing industries in computer numerical control operations with skills in machine tooling and blueprint reading. The current employment projections from the Bureau of Labor Statistics indicate positive growth for the various machine tool operator's positions in the state and our college district. Computer-Controlled Machine Tool Operator (51-4011) shows an annual growth of 1.87% for the state and 1.93% for the college district. These numbers are reflective through 2022 for the district and state.

Admission to the Program: Open

CNC Programmer Advanced Certificate

The CNC Programmer certificate 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. 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.

Admission to the Program: Open

First-Time Enrollees

1. Complete an application for admission to the College and, if desired, apply for financial aid.
2. Send an official high school transcript or GED score report to the Admissions and Records Office.
3. Complete the placement exam.
4. Meet with an advisor/counselor to select classes and complete the registration process

Department of Career & Corporate Development

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Phone: 309.341.5461

For Additional Information Contact:

The Welcome Center

Phone: 309.345.3500

welcomecenter@sandburg.edu

For Graduation Requirements:

See the graduation policies and procedures (http://catalog.sandburg.edu/academicinformation/#graduation_policies_and_procedures) page for details.

Course	Title	Semester Hours
First Year		
Spring Semester		
MFG.125	Industrial Blueprints	3
MFG.130	Industrial Safety	2
MTL.103	Manufacturing Processes	2
MTL.130	CNC Machining Technology	4
MTL.135	Fund. of CNC Machine Applications	4
Summer Session		
MTL.295 or MTL.296	Operator Internship I or Operator Internship II	2
Total Semester Hours		17

Course	Title	Semester Hours
Second Year		
Fall Semester		
MAT.101	Technical Mathematics 1	3
MTL.150	Fund. of CNC Turning Applications	3
MTL.155	Fund. of CNC Milling Applications	3
MTL.160	CNC Lathe Set-up	3
MTL.165	CNC Mill Set-up	3
Spring Semester		
MAT.102	Technical Mathematics 2	3
MTL.200	Fundamentals of Live Tooling	3
MTL.205	Live Tooling & Set-Up & Orientation	3
MTL.210	CNC Lathe Process	3
MTL.215	CNC Mill Process	3
Summer Session		
MTL.297 or MTL.298	Programmer Internship I or Programmer Internship II	2
Total Semester Hours		32

Christopher N. Banker

Dean of Career and Corporate Development

The Center for Manufacturing Excellence (CME) offers classroom space, a computer lab, and houses Carl Sandburg College's industrial programs. Students may take courses in the following subject areas: welding, Computer Numerical Control Machining (CNC), biofuels, rail, machine tool, manufacturing or electrical. The electrical lab features a host of components to aid in student learning including AC/DC trainers. In 2014, Sandburg became a designated National Academy of Railroad Sciences (NARS) training site offering courses in locomotive electrical and locomotive mechanical. Instruction is delivered by individuals with industry-specific expertise and includes specialized coursework using technical equipment. Two diesel engines inside the CME are available for training opportunities. The College's weld lab offers 26 bay stations. The welding area offers two welding simulators, as well as state of the art multi process welding machines. The CNC Program offers training in programming, setup, and operations while housing multiple lathe, mills, and CNC Machines as well as simulators to properly train students for a career in the machining industry.