

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

2400 Tom L. Wilson Blvd.

Galesburg, IL 61401

Phone: 309.341.5313

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 |

Kellogg, David M

associate dean, 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, biofuels, rail, machine tooling, 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 welding lab offers 16 bay stations and soon will have an additional ten working spaces. The welding area offers a welding simulator, as well as state of the art multi process welding machines.