

Certificate in CNC Machinist

Career Curriculum: MAC 2014 Minimum Hours: 30 Major Code:1.2 480510 Effective Date: Fall 2025

FIRST YEAR - FALL SEMESTER

Dept. No. Hrs. Grade ORI 100 College 101 1 **Basic Electricity and Wiring** 4 ELT 102 3 ELT 205 Hydraulics and Pneumatics 2 WFI 115 Metallurgy MAC 200 Machine Tool Laboratory 4 3 ELT 105 Introduction to Programmable Logic 17 Controllers

FIRST YEAR - SPRING SEMESTER

Dept.	No.		Hrs.	Grade
MAC	154	Introduction to CNC	2	
MAC	159	CAM Operations	2	
MAC	180	Blueprint Reading	3	
ELT	201	PLC Manufacturing Systems & Industrial Robotics	3	
WEL	124	GTAW (TIG) Welding I	<u>3</u> 13	

NOTES AND INFORMATION

All students registered for this program will be required to furnish a basic tool set. The set includes the following:

- Combination square (recommend: Starrett, Mitutoyo or Fowler)
- Micrometer set 1" & 2" (recommend: Starrett, Mitutoyo or Fowler) <u>optional</u>
- 6" dial calipers (recommend: Starrett, Mitutoyo or Fowler)
- Carbide tipped scribe
- Steel toed work boots/shoes
- Safety glasses with side shields
- 6" flexible rule
- Shop apron
- Ball end Allen wrench set (standard and metric)
- Red lead pencil, grease pencil, and fine tip Sharpie
- Tool box
- 25' tape measure
- Blue jeans (100% cotton)
- Long sleeve shirt (100% cotton)
- Leather welding gloves
- Channel lock pliers
- Composition notebook (qty 2)
- 3 ring binder with 1 package of tab dividers
- Scientific calculator (TI30XA or equivalent) no programmable calculators
- Digital multi-meter (DMM) must measure volts, ohms, and milli-amps
- Replacement fuses for meter
- 15 amp fuses (qty 4)
- Needle nose pliers
- Lineman's pliers
- Cable stripper
- #2 Phillips screwdriver
- ¼" standard screwdriver

Note: Cost varies from different suppliers.

Career Opportunities: Beginning salaries are comparable to other technical careers with many positions offering an opportunity for quick advancement. These positions can be found in our region and throughout the nation from manufacturing companies, industrial companies, government agencies, and the mining industry.

Upon completion of the CNC Machine Certificate program, a student may find employment as a machine tool operator/programmer, CNC machinist, lather operator, mill operator, or a general machinist. This program provides the student with an opportunity to start as a higher level in the work force with quick advancement within a company possible.

A job placement service is provided for all John A. Logan College graduates in an effort to assist students in finding gainful employment. Each year new graduates prepare or update resumes and submit them to the college Placement Office for review by potential employers.

John A. Logan College reserves the right to modify this curriculum guide as needed. Please verify with your academic advisor the accuracy and timelines of this document.