



**CNC MACHINIST
Certificate Program**

Career Curriculum MAC 2014
Certificate Program
Minimum Hrs. 33
Major Code: 1.2 480510J

FIRST YEAR – FALL SEMESTER

Dept. No.	Hrs.	Gr.
ELT 102 Basic Electricity and Wiring	4	—
IDM 210 Hydraulics and Pneumatics	4	—
IND 201 Metallurgy	2	—
MAC 200 Machine Tool Laboratory	4	—
MFT 103 Industrial Robots and PLCs	3	—
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FIRST YEAR – SPRING SEMESTER

Dept. No.	Hrs.	Gr.
IDM 120 Safety and Environmental Management	2	—
MAC 154 Introduction to CNC	2	—
MAC 159 CAM Operations	2	—
MAC 180 Blueprint Reading	3	—
MFT 201 PLC Manufacturing Systems	3	—
WEL 150 Oxy-Acetylene Fusion Welding I	1	—
WEL 151 Oxy-Acetylene Fusion Welding II	2	—
WEL 162 T.I.G. Welding	1	—
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This is a Gainful Employment Certificate Program of 16 credit hours or more that prepares the student for gainful employment in a recognized occupation. For detailed information regarding program length, cost, average loan debt and completion details, select the following link to the Gainful Employment Worksheet for this program. [Gainful Employment Worksheet–CNC Machinist Certificate Program \(MAC 2014\)](http://www.jalc.edu/gainful_employment/cnc_machinist/Gedt.html). You can also access this information by typing the following URL into your browser's address bar: http://www.jalc.edu/gainful_employment/cnc_machinist/Gedt.html

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

Effective Date: Fall 2014

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) *optional*
- 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, lathe 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.