

## Programmable Controller (PLC) Certificate

A Programmable Logic Controller (PLC) Certificate prepares the individual to install, maintain and troubleshoot industrial grade PLC systems. Typically these technicians will work closely with maintenance supervisors and electrical engineers, sometimes receiving objectives and technical advice from them. Technicians conduct extensive self study (reading, research and practice) to improve and maintain technical proficiency, due to new and improved electrical control devices.

Typically, technicians work on assignments and tasks with minimum supervision and guidance, often requiring the technician to interface and pass down information between cross-function personnel of incoming and outgoing shifts. It is expected by employers that technicians demonstrate excellent verbal, written and interpersonal communication skills.



## Career Outlook

Graduates of this program may find employment as entry-level control technicians, electrical technicians or as service technicians working under the direction of the maintenance or engineering department. Some of the typical duties of these technicians will include: troubleshooting and programming of PLC control systems; variable frequency drives; 480 volt 3 phase motor wiring; reading blueprints and electrical schematics; installing conduit and wiring; testing wiring connections; working closely with electrical engineers and/or general contractors.



## STEM and Industrial Technology Division



Franklin Roberts  
Dean

### Questions:

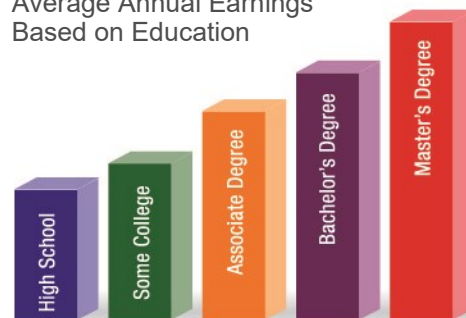
NSCC Admissions Office  
(419) 267-1320  
admissions@NorthwestState.edu

[www.NorthwestState.edu](http://www.NorthwestState.edu)

2019-2020

### Education Pays

Average Annual Earnings  
Based on Education



Based on data from the Bureau of Labor Statistics

NSCC is accredited by:  
The Higher Learning Commission  
(312) 263-0456  
[www.ncahigherlearningcommission.org](http://www.ncahigherlearningcommission.org)

# PROGRAM SEQUENCE

<b>First Semester / 1st 8 weeks</b>		<b>Credits</b>
+IND120	Industrial Electricity I	3
IND110*	Industrial Computing I	3
IND105	Industrial Safety	2
		<hr/>
		8

<b>First Semester / 2nd 8 weeks</b>		<b>Credits</b>
+IND121	Industrial Electricity II	3
+PLC200	Programmable Controller I	3
	Communications Elective	3
		<hr/>
		9

<b>Second Semester / 1st 8 weeks</b>		<b>Credits</b>
+IND223	Motors & Motor Controls	3
+IND221	Instrumentation & Controls	3
		<hr/>
		6

<b>Second Semester / 2nd 8 weeks</b>		<b>Credits</b>
+PLC210	Programmable Controller II	3
+PLC220	Programmable Controller III	3
+PLC230	Servo/Robotics Systems	3
		<hr/>
		9

**Total Program Credit Hours** **32**

\* Prior to taking IND110, students should have basic computer literacy in Windows and at least one Windows application.

+ Refers to technical coursework. Students must attain a minimum grade of "C" in these technical courses to pro-

*Gainful employment information for NSCC's certificate programs can be found online at:*

*<https://northweststate.edu/gedt/plc/>*

*Gainful employment information includes: estimated cost of the program, average student loan debt and types of jobs available.*