

Industrial Electrical Certificate

Engineering Technologies Division

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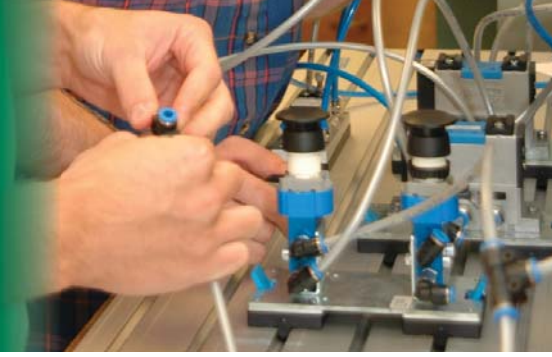
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www.northweststate.edu

NSCC is accredited by:
The Higher Learning Commission
(312) 263-0456

www.ncahigherlearningcommission.org



Industrial Electrical Certificate

This program will focus on learning experiences that will prepare students with the technical skills to work in the industrial electrical field in positions such as industrial electrician, electrical technician, industrial controls technician, or maintenance technician. All of these courses apply toward the comparable associate degree.

Students in the program will be trained not only in traditional electrician skills, but also how to operate and troubleshoot state-of-the-art programmable controller systems, solid state motor drives, instrument systems and industrial computer systems used by maintenance personnel in manufacturing and process plants.

Students will receive hands-on training on AC/DC motors, transformers, test equipment, basic hydraulic systems, and industrial wiring practices according to the National Electrical Code. Most of the technical classes will have 50 percent of the learning experience in the classroom, and the other 50 percent in the laboratory with hands-on training. This program focuses on basic fundamentals so that graduates can also adapt to the continuous changes in technology.

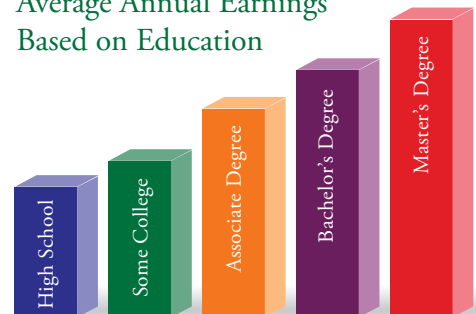
Coursework (100 level or higher) completed in this certificate directly applies toward the associate degree in Industrial Electrician.

Career Outlook

As manufacturers invest in new highly technological equipment, the demand for the Industrial Electrician is great.

Education Pays

Average Annual Earnings
Based on Education



2011-2012

Based on data from the Bureau of Labor Statistics

Program Sequence

First Semester *Credits*

+ IND120	Industrial Electricity I	3
MTH080	Review of Beginning Algebra	4
		7

Second Semester *Credits*

+ IND121	Industrial Electricity II	3
+ IND110*	Industrial Computing I	3
		6

Third Semester *Credits*

+ IND220	Electrical Prints & Troubleshooting	3
+ IND134	Industrial Fluid Power I	3
		6

Fourth Semester *Credits*

+ IND223	Motors & Motor Controls	3
+ PLC200	Programmable Controller I	3
		6

Fifth Semester *Credits*

+ EET277	Industrial Electronics	3
+ PLC230	Servo/Robotics Systems	3
		6

Sixth Semester *Credits*

+ IND221	Instrumentation & Controls I	3
	General Studies Elective	3
		6

Seventh Semester *Credits*

+ IND122	Industrial Wiring (NEC)	3
		3

Total Program Credit Hours **40**

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

+ Students must attain a minimum grade of "C" in all courses with a '+' to progress in the program and to graduate.

Course curriculum is subject to change. Please consult with an Academic Advisor for up-to-date information.



Industrial Electrical Certificate

Department of Engineering Technology

PROGRAM NAME & LENGTH

Name of Program: Industrial Electrical

Level of Program: Certificate

Program Length: 3 Semesters

RELATED OCCUPATIONS

U.S. Department of Labor's Standard Occupational Classification (SOC) code:

49-2092 Electric Motor, Power tool, and Related Repairers

Link(s) to the U.S. Department of Labor's O*Net Occupational Profiles:

<http://www.onetonline.org/link/summary/49-2092.00>

COST:

Total Tuition: \$5,304

Fees: \$390

Total Est. Costs for Books and Supplies: \$514

DEBT AT PROGRAM COMPLETION

Number of students completing the program between July 1, 2010 and June 30, 2011

Number of 2010-2011 Graduates: 3 Student(s)

For all Students completing program, the median cumulative debt for:

Federal Student Debt: Not Disclosed

PROGRAM COMPLETION IN NORMAL TIME

Normal Time in Months to Complete Program: 12 Months