Electrical and electromechanical technicians are in high demand, and SCC provides you with the tools to get your career on high voltage today! Electricians install, connect, test, and maintain electrical systems for residential, commercial and industrial systems, as well as maintain components for climate control, security and communications. Electromechanical technicians visualize, design, create, and repair the many devices that are used throughout the industrial-manufacturing world by combining their electrical and mechanical background.

Skills such as welding, hydraulics and machining, along with their electrical capabilities, are used every day to keep industry running. Robotics and automated control systems are a large part of industry, and our students receive many hours of training in these areas. Electricians may install and maintain the electronic controls for machines in business and industry.

“Working closely with the Electrical and Electromechanical instructors has always been a positive and rewarding experience. SCC uses the same methodology and is in ‘sync’ with our own in-house training department. Creating an environment where a student/employee can learn is one thing, but to build an atmosphere where they are tested, challenged and encouraged to think on their own creates a higher level of proficiency and troubleshooting ability. These attributes are not only key to the technical trade, but valuable tools that can be used in all aspects of life. 3M has had great success with SCC students; being able to hit the ground running, demonstrating disciplined expertise, arriving to work on time, and providing a can-do attitude day-in and day-out. All of this is a reflection of the dedication and efforts that go into the Milford Campus.”

Marvin Wiese, Plant Engineering GS, Valley, Neb.

Top Career Options
• Apprentice Electrician
• Automation Engineering Technician
• Electromechanical Technician
• Robotics Technician
• Substation Technician

Graduate Earnings
Recent graduates report an average starting wage of $21.30 per hour.

2019-2020 Tuition/Fee Rate Per Credit Hour
Nebraska Resident $108
Out-of-state tuition/fee rate $129

Estimated Expenses
Tuition/Fees $6966
Books 2160
Special Fees 203
Tools/Supplies 400
Total: $9,728
**Program Overview**

Students are admitted in the Fall and Spring semesters. Approximately half of the training time will take place in a laboratory setting where students will apply their classroom theory concepts and test their ability to make proper designs and connections on industrial grade equipment. All students will focus on electrical and industrial electronic principles before they choose to enter into one of three specific focus areas.

**Electrical Systems Focus**

Types of Jobs: residential, commercial and industrial construction environments, designing, installing, maintaining and upgrading all types of electrical power and control circuits throughout industry.

**Electromechanical Systems Focus**

Types of jobs: designing, installing, maintaining and upgrading industrial mechanical, electrical and automation systems. Their work may involve skills in the areas of machining, welding, fabrication, wiring and installation of new and existing production equipment along with hydraulic and pneumatic systems.

**Automation Systems Focus**

Types of jobs: industrial manufacturing settings that allow a student to work with all types of automation. This would include, but is not limited to programmable logic controllers, robotics, variable frequency drives, vision systems and other industrial devices.

**General Education Requirements (AAS)**

See the General Education pages for a complete list.

GELO #1: Oral Communication 3.0

GELO #2: Written Communication 3.0

GELO #3: Critical Thinking & Problem Solving 3.0-5.0

PHYS1017 or PHYS1150 or PHYS1410 (Recommended)

GELO #5: Analytical, Quantitative, and Scientific Reasoning

MATH1050 or higher 3.0

WELD1191 GMAW and SMAW Industrial Welding

MACH1131 Manufacturing Processes for

ELEC1337 Sketching & CAD 2.0

ELEC1496 Industrial Wiring I 4.0

Course # Course Title Credit hrs.

**Electrical Focus**

- Portaile tool chest
- 1/2" or 3/8" socket set (1/4" through 3/4"
- 10" ratchet for the above socket set
- 5" extension for the above socket set
- 10" and 8" adjustable wrench
- 7 piece combination wrench set-standard
- Standard tip screwdriver-5/16" with 6" shank
- Phillips screwdriver-size #1
- Locking tape (1/2" x 12" minimum)
- Hex key set (5/64" through 3/8"
- 6 3/4" slip joint pliers
- 7 3/4" curved diagonal cut pliers
- 10" locking pliers (straight or curved jaw)
- 1 1/2 lb standard deadblow hammer
- 16 oz ball peen hammer
- 5 piece punch set (1/16" through 5/32"
- Utility knife

**Combination Theory/ Laboratory Classes**

One per semester, as follows:

Course # Course title Credit hrs.

**Electrical Construction - IBEW Option**

For members of the International Brotherhood of Electrical Workers (IBEW - Local 265). The curriculum is provided with the cooperation of representatives of SCC and Nebraska representatives of the International Brotherhood of Electrical Workers - IBEW-Local 265. Applicants must meet the stated SCC and IBEW-Local 265 entrance requirements to be accepted into the program.

The curriculum is normally delivered over a five-year period. Classes are held at the IBEW Training Center, 6200 S. 14th St. in Lincoln. Prepares students for a career in the commercial and residential electrical construction industry.

For more information contact:

Roy Lamb, Director of Training
Joint Apprenticeship and Training Committee (JATC);

402-423-4519 or the College Admissions Office

Milford 402-761-8243, 800-933-7223 ext. 8243

**Tools for Electrical/Electromechanical/Automation**

1st semester
- Safety glasses
- (2) Large binders
- 10 square graph paper pad
- 81-506 Calculator
- USB drive 16GB
- Oscillogram paper pad

2nd semester
- All tools from the first semester plus the following:
- 3mm x 100mm screwdriver
- Wire stripper
- Multirometer (see program director)
- Phillips #2 screwdriver with 4" shank
- Tool box or tool pouch with belt (optional for automation students)

3rd semester ................................. Electrical

All tools from first two Electrical semesters plus the following:
- Aluminum torpedo with magnetized strip on bottom
- Steel locking tape (3/4" x 25' minimum)
- Electromechanical pocket knife or utility knife
- Hammer (heavy duty curved claw)
- 10" adjustable jaw wrench (with plastic dip handles)
- 10" water pump pliers (with plastic dip handles)
- 6 3/4" diagonal cutters (with plastic dip handles)
- 9 1/4" high leverage lineman plier (with plastic dip handles)
- Standard screwdriver 5/16" blade with 6" shank
- 1/2" 3/4" conduit reamer
- Hard sole shoes
- Hard Hat
- Architecture Ruler

4th Semester ................................. Electrical

All tools from first three Electrical semesters

3rd Semester ............................... Electromechanical

All tools from first two semesters plus the following:
- Head gear (skull cap)
- Green Lens
- Arc welding helmet
- Welding gloves
- Pliers
- Locking tape (1/2" x 12" minimum)
- Hex key set (5/64" through 3/8"
- 6 3/4" slip joint pliers
- 7 3/4" curved diagonal cut pliers
- 10" locking pliers (straight or curved jaw)
- 10 oz ball peen hammer
- 5 piece punch set (1/16" through 5/32"
- Utility knife

4th Semester ................................. Electromechanical

All tools from first three Electromechanical semesters plus:
- Circuit breadboard
- Standard Allen key set (1/16" through 1/4"

**On-the-job Training**

One course of 100 clock hours per semester. Skills checklist, as shown on syllabi, verified to SCC by IBEW. Supervision by IBEW members. Location of the OJT site varies with the demands of the Electrical Industry.

Course # Course title Credit hrs.

**Program Tools**

- All tools from first three Automation semesters
- Pliers
- Arc welding helmet
- Wire cutters
- (2) HB pencils
- Wire brush
- (2) F pencils
- Standard screwdriver
- Hard Hat
- Safety glasses
- (2) Large binders
- 10" locking pliers (straight or curved jaw)
- 7 3/4" curved diagonal cut pliers
- 1 1/2 lb standard deadblow hammer
- 16 oz ball peen hammer
- 5 piece punch set (1/16" through 5/32"
- Utility knife

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**General Education Requirements**

See the General Education pages for a complete list.

GELO #1: Oral Communication 3.0

GELO #2: Written Communication 3.0

Plus three classes from the four areas below; no two classes from the same area.

GELO #3: Critical Thinking & Problem Solving 3.0

GELO #4: Global Awareness and Citizenship

GELO #5: Analytical, Quantitative, and Scientific Reasoning

GELO #6: Career and Life Skills 9.0