



# WIRED

## FOR SUCCESS

**North Dakota State College of Science**

### PROGRAM PURPOSE

*It is the department's intent to produce students with entry-level skills acceptable to all employers. We, also, strive to give our students the knowledge, skills and abilities for future growth and advancement within the Electrical Industry. Lastly, our students will speak, write and otherwise communicate effectively on the job.*

### STUDENT LEARNING OUTCOMES

are summarized as follows:

*Students will be knowledgeable of:*

- *Electricity (i.e. theory, terminology, circuit analysis)*
- *Electrical Safety and work safely in the labs*
- *National Electric Code (NEC)*
- *Installation and troubleshooting of electrical equipment*
- *Installation, adjust and troubleshoot controls*
- *Symbols and print reading*
- *Electric meters and proficient using them for troubleshooting*
- *Oral and written communication*
- *Math operations and critical thinking*



*The NDSCS Electrical Department kicked off Homecoming 2018 with NDSCS Graduates sharing their success stories and words of wisdom to the Electrical Technology Students. Ron Anderson (1961) Owner – A & K Process Machinery, Marlin Linder (1980) – VP Mountain Division – Encore Electric, Inc., Marshal Albright (1985) President / CEO – Cass County Electric, Joel Krause (1988) Owner – Crossroads Electric, Bill Gavin (2004) Design / Estimator – Parsons Electric along with Slade Fitzgerald (1998) current NDSCS instructor who moderated the discussion. Ivan Maas (1982) Electrical Department Chair is in the background.*

## Celebrating Success—95 Years and Beyond

The NDSCS Electrical Technology Program proudly celebrated its 95<sup>th</sup> birthday. Spawned by the need to electrify the upper Midwest, the program trained line-workers, meter technicians, as well as electricians. Despite the industry pressure to focus more on wiring applications only, the program continues to promote learning beyond wiring with heavy doses of theory, math and other general education courses which, over the years, has proven to enhance the technicians' troubleshooting skills and career advancement. A recipe which has lasted almost a century.

The celebration (in conjunction with the NDSCS Homecoming events) began with an industry panel of alumni sharing their journey through their careers. They provided "golden nuggets" of proven advice as Curt Kasper – NECA, echoed. Barnard Hall hosted an Open House for all Electrical Alumni as they had a chance to check out the artifacts in the Electrical Museum and tour the classrooms and labs. An Alumni awards recognition Friday evening rewarded alums for 20, 30, 40 and 50 years after graduation. LeRoy Sletten, class of 1951, was the earliest graduate to return for the weekend event. Retired and current faculty as well as Alum and their families had a chance to reminisce and share stories at the Saturday breakfast and open house throughout the day. Bernie Anderson, Charles Henry, Ken Kjar, Verlin Lundgren, and Shane Suko, were former instructors returning for the event. Several alumni joined current Electrical Club students for the opportunity to ride on the Wahpeton Parks and Rec, English (Bristol) double-decker bus in the Homecoming Parade.



**Thanks to all that made the 95th Celebration a success!**

Photos from the celebration weekend will be available soon thru the <http://www.ndscsalumni.com> flickr link.



**Mark your calendars for Homecoming 2023  
NDSCS Electrical Technology turns 100!**

**Looking for NDSSS & NDSCS ARCHIVES from 1914 - 2003?  
Check out [ArcaSearch](#) thru the Alumni website.**



# THANK YOU

sponsors for your generosity to help celebrate the NDSCS Electrical 95th Anniversary!



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## "A lot has changed since then."

Barnard Hall did not exist, and Electrical classes were held in Trade-Tech 1 (now Horton Hall). Some of our classes were held on the second floor. There were a lot of hooks in the hallway where you would see rows of Electrical Club jackets hanging while we were in class. We didn't worry whether our jackets would still be there when class was over.

There was a water fountain in the hallway next to the door to the freight elevator. The water supply to that water fountain came from the area of the elevator, and there was a shut off valve just inside the door. As a joke, one person would wait inside that door and another would lean against the door. When someone would come to take a drink, there would be a soft tap on the door and the person manning the water valve would slowly close the water valve. The person getting the water would lean closer to the diminishing water and a second tap would signal for the water to be turned on full blast. There was usually a wet face and some snickering by the spectators.

When we were studying our electrical theory at night and having trouble with the assignments, we would wander over to Trade Tech 1, and if the lights were on in the classroom where we had lab and theory, we would toss some small rocks at the window and Mr. Matheson would come down and let us in to give us help.

Also in the early 60's, the NDSSS football games were held at Chahinkapa Park. The Electrical Club had the concession stand for those games. With the use of borrowed equipment from various places on campus, we sold hot dogs, pop, coffee and other things. The money we made from the sales was used for a banquet in the winter. We rented a place downtown, had a great meal, and paid an honorarium for a speaker, all from the concession sales. Others on campus must have realized that we had it too good because by 1970 we no longer had the concession stand.

Those were the days of slide rules instead of calculators, one phone on each floor of the dorms instead of cell phones, and chalk boards instead of white boards. We still got a great education, and NDSCS had, and still has, a great reputation for a great Electrical Technology program. - **Ken Kjar, 1965 Graduate and Instructor from 1970-1991**

*Do you have story to share? Send it to [ivan.maas@ndscs.edu](mailto:ivan.maas@ndscs.edu)*

## 2018 NDSCS ELECTRICAL GRADS OUTSCORED THE NATION AVERAGE IN 11 of 12 CATEGORIES!

Annually since 2011, we share exam results from May graduates. the **National Occupational Competency Testing Institute (NOCTI)** which is a leading provider of high-quality written and performance occupational competency assessments. The 12 categories covered in the written exam provide an overview of student learning across the entire program and are used during the NDSCS Electrical program assessment to evaluate student learning outcomes. (NOCTI results are posted on the right)



### JOB READY WRITTEN ASSESSMENT

	<b>NDSCS</b> ELECTRICAL TECHNOLOGY	<b>NATION AVG.</b>
AC Theory, Magnetic Theory & DC Theory	<b>76.9</b>	<b>70.6</b>
Blueprints, Specifications, and Estimations	<b>80.5</b>	<b>73.8</b>
Circuit Theorems and Conversions	<b>73.4</b>	<b>66.1</b>
Green and Renewable Technology	<b>65.0</b>	<b>59.1</b>
Identification & Selection of Tools, Materials, and Components	<b>80.7</b>	<b>77.5</b>
Introduction to the Electrical Construction Technology Career	<b>82.8</b>	<b>82.9</b>
Meters, Measurements, Testing	<b>82.1</b>	<b>75.1</b>
Motors	<b>66.5</b>	<b>60.7</b>
National Electrical Code (NEC)	<b>71.5</b>	<b>70.2</b>
OSHA Regulations and Electrical Safety Practices	<b>75.4</b>	<b>69.9</b>
Transformers	<b>70.3</b>	<b>67.9</b>
Wiring, Circuits, and Installation	<b>66.1</b>	<b>65.8</b>

## STUDENT FOCUSED



### Thank You Dakotas NECA

**For Supporting Students Scholarships**

From left —John Bolgrean, owner of New Horizons Electric in Fargo, Ivan Maas, Electrical Department Chair, Kurt Casper, Dakotas Chapter NECA and Tim Neumann, Donor Development Manager, NDSCS.

## FACULTY CONNECTIONS

Welcome!

**Greg Heitkamp**  
Adjunct Instructor  
Electrical Technology





## 2 YEAR

**A.A.S. DEGREE OPTIONS**

**ELECTRICAL CONSTRUCTION**

**or**

**INDUSTRIAL ELECTRICAL**

## 3RD YEAR

**A.A.S. Degree Option**

**ROBOTICS, AUTOMATION &  
MECHATRONICS TECHNOLOGY**

North Dakota State College of Science

**ELECTRICAL TECHNOLOGY**

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*The Science of Success.*

### **Careers in Energy Week: October 15—19, 2018**

The Center for Energy Workforce Development (CEWD) and member companies began working together to create a Careers in Energy Week in 2010. The purpose is to increase the public's awareness about energy careers through a concerted nationwide effort. This provides an opportunity for energy companies to connect with their local communities by sponsoring special events where schools, families, and other businesses can learn more about how your company operates and the importance you have in the local economy.



NDSCS recognizes that the Energy field needs Electricians and Electrical Techs. The public is invited to check out the display cabinets in the Mildred Johnson Library and browse the collections of books or online resource links available to explore Careers in Energy.

Department tours are available upon request. High school students interested in the Electrical trade can tour during an upcoming Special Event Days (see info below) or contact Enrollment Services to schedule a tour.

### **Discovery Days: Thursday, October 18 & Friday, October 19, 2018**

High school students can get a glimpse into life as a Wildcat at NDSCS! Learn about 80+ academic programs you can explore including Electrical, HVAC/R, Plumbing, Robotics, Automation and Mechatronics Technology and MORE!!!

### **Building Systems (Electrical, HVAC/R & Plumbing) and Manufacturing Day: Thursday, November 1, 2018**

High school students can tour department labs and discover the Electrical Construction, Industrial Electrical, Heating, Ventilation, Air Conditioning and Refrigeration (HVAC/R) Technology, Plumbing, Precision Machining Technology, Welding Technology, Robotics, Automation and Mechatronics Technology programs.

### **Electrical Technology Advisory Committee: Tuesday, February 26,**

**2019** It is the policy of the North Dakota State Board for Vocational Education that each technical program has a separate advisory committee. Committee members include people from the industry who possess knowledge and work experience in the technical program which they serve. Members help the program identify the latest educational and employment trends and help promote and assure that the program remains of the highest possible quality. Plus more!!!

### **NDSCS Career Fair: Wednesday, February 27, 2019**

The **2019 Career Fair** will be held on Wednesday, February 27 from 10 a.m. - 1 p.m. in the Clair T. Blikre Activities Center. This **cross-discipline** Career Fair will not only attract students from specific technical programs, but is open to students from all of our academic areas. There is a charge of \$175 to attend if payment is received by 1/25/19. If payment is received after January 25, the charge will be \$225. There is a charge of \$25 for interview space (interviews are held at the conclusion of the Career Fair). Cancellations received by 1/25/19 will receive a \$100 refund. **Space is limited to the first 200 employers.**

Each booth will consist of one 6 foot table, two chairs and a black table covering. If you have a larger display and need more space, you may need to reserve two booths. Each booth also allows for 1 electrical device; please bring your own extension cord.

A drop-in, buffet style lunch will be provided to employers attending the fair (12:30 – 1:30 p.m.); attendees are encouraged to stagger lunch times to ensure booths are always staffed.

*To reserve your spot at the 2019 North Dakota State College of Science Career Fair, please complete the online registration form or contact NDSCS Career Services at 701-671-3000 or [NDSCS.CareerServices@ndscs.edu](mailto:NDSCS.CareerServices@ndscs.edu).*