



MITCHELL TECH

Electrical Construction & Maintenance

- Engage in hands-on residential and commercial labs
- Fundamental knowledge working with the National Electrical Code (NEC) standards
- Highly experienced instructors
- Specialty areas include PLCs, industrial controls, fiber, motors, and more
- Graduates earn 2,000 apprenticeship hours
- Excellent starting wages



JOB PLACEMENT RATE: 100%*
TUITION/FEES/LAPTOP: \$20,400

Books and tool costs not included.

*Placement data is gathered through graduate surveys, faculty-collected data, and phone surveys started after six months of graduation. In 2025, 46 of the 47 graduates are represented in the data. Employment rate is figured by: (graduates employed)/(responding graduates who are seeking employment).

For information regarding licensure in South Dakota and other states, please visit our website at <https://www.mitchelltech.edu/programs/on-campus/construction-manufacturing-technologies/electrical-construction-maintenance/requirements>

GET READY



605.995.3025
mitchelltech.edu

Award: ECM AAS Degree

First Semester (Fall)		Semester Credits
ECM	101	Electrical Fundamentals4
ECM	121	Electrical Drawing4
ECM	151	Basic Electrical Lab5
OSHA	101	OSHA 10 Construction1
SSS	100	Student Success.....1
		*Math Elective3
		*General Education Elective3
		21

Second Semester (Spring)		Semester Credits
ECM	103	Designing Electrical Systems.....3
ECM	122	Residential Blueprint & Code3
ECM	149	Basic Conduit Bending.....2
ECM	157	Wiring Lab.....4
CIS	105	*Introduction to Computers3
		*General Education Elective3
		18

Third Semester (Fall)		Semester Credits
ECM	211	Power Distribution 1.5
ECM	231	Electronic Circuits.....2
ECM	251	Commercial/Industrial Wiring Lab.....4
ECM	252	Industrial Controls.....3
ECM	255	Control Lab I..... 1.5
ECM	259	Programmable Logic Controls3
		*Written Communications Elective3
		18

Fourth Semester (Spring)		Semester Credits
ECM	202	Motor Theory Maintenance.....2
ECM	221	Commercial Blueprint Reading.....2.5
ECM	235	Structured Cabling4
ECM	244	VFD Motor Drives 1
ECM	253	Advanced Control Systems.....2.5
ECM	257	Advanced Control Lab II.....2
ECM	261	Adv. Programmable Logic Controls.....3.5
CPR	100	First Aid, CPR & AED.....0.5
		18

Total Credits Required to Graduate: 75

*Dual credit opportunity

Award: ECM & SCADA AAS Degrees

Fifth Semester (Fall)		Semester Credits
SD	225	Introduction to SCADA Software.....4
SD	229	Networking Concepts.....3
SD	259	Adv. Programmable Logic Controllers4
SD	265	System Integration Troubleshooting.....4
		15

Sixth Semester (Spring)		Semester Credits
SD	205	Process Controls.....3
SD	239	Advanced Industrial Networking3
SD	266	Robotics & IEC 61131-3 Standards.....3
SD	270	SCADA Testing & Control Lab.....7
		16

Total Credits Required to Graduate: 106