

# Underground School

May 6–9, 2025



MMUA Training Center  
Marshall, MN

# 2025 Underground School program details

Underground School features hands-on training that varies from year to year. Whether you are a seasoned journeyman looking to stay current or an apprentice just starting out, this school offers something for everyone.

## Participants choose between two course options:

- Multi-session Class
- Advanced Class

### Option #1: Multi-session Class

Participants will be divided into groups and will rotate through the following six hands-on training sessions:

#### Circuit Isolation and Switching

This session will cover the importance of following switching orders. Instructions on proper steps will be taken to cover the techniques needed to switch and isolate underground equipment. The required procedures and use of tools and equipment will be taught on how to effectively test and ground your work area.

#### Cable Pulling

This session will focus on the proper procedures for pulling wire. Crews will pull in 1/0 wire using state of the art pulling equipment. Students will be instructed on preparing the site on which the work will take place and identifying the hazards that may be in the area. This class will focus on safety and proper procedures.

#### Locating

Individuals will be able to try different brands of locators and go through the different techniques used in locating, including using the A-frame locator to locate faulted secondary wires.

#### Troubleshooting and Fault-Finding Primary Cable

In this session, students will be taught how to isolate and restore power on underground primary systems. Proper use of phasing sticks with direct current hi-pot adapters, fault indicators, and thumpers will be demonstrated to help students understand and address the issues related to underground cable faults.

#### Leaking Transformer Changeout

This session will cover how to properly change out a leaking transformer. Students will be taught what needs to be done with the contaminated area, as well as materials and tools, and what to do if the oil has polychlorinated biphenyls (PCBs).

#### 600-Amp Terminations

This session will help participants gain important knowledge in the process of terminating 500 MCM aluminum wire. Terminations for a riser, splice, and elbows will be taught. Proper tool selection and grounding will also be covered.

### What do I need to bring?

Please bring appropriate attire and materials, including:

- High-visibility clothing /outerwear
- Work gloves
- Hard hat
- Rubber gloves
- Safety glasses
- Work boots

### Option #2: Advanced Class

#### Equipotential Grounding and The Isolation Method

This course will focus on equipotential grounding and the isolation method. Proper testing and grounding is one of the single most important safeguards we have in our industry. It establishes a safe work zone where all conductors are at the same potential. It ensures that even if a circuit becomes energized the lineworker is still protected. Utilizing the isolation method for underground construction will also prevent any fault current from entering the worker.

- Discuss changes made to the APPA safety manual regarding equipotential grounding of underground and overhead distribution lines.
- Discuss what the isolation method is and the science behind why equipotential grounding is the safest way to ground.
- Hands-on equipotential grounding dealing with different scenerios in both underground and overhead applications.
- Hands-on using the isolation method on underground distribution cables.

### Schedule

#### Tuesday, May 6

12:00–1:00	Registration and check-in
1:00	Welcome and opening remarks
1:00–4:00	Gopher State One Call/Office of Pipeline Safety
4:00	Wrap up

#### Wednesday, May 7

8:30–12:00	Hands-on training
11:45–12:30	Lunch
12:30–4:00	Hands-on training
4:00	Wrap up
5:00	Optional evening activities

#### Thursday, May 8

8:30–12:00	Hands-on training
12:00–1:00	Lunch
1:00–4:00	Lineworker mystery event

#### Friday, May 9

8:30–12:00	Mutual aid: Hurrigan Milton Recap
12:00	Wrap up

### Underground School registration fees

- Member—\$555 per person
- Non-member—\$835 per person

Registration fee increase \$50 on April 12, 2025. MMUA will issue a refund (less \$50 processing fee per person) provided MMUA is notified of the cancellation by 4:30 pm on April 25, 2025. Refunds issued to credit cards will be subject to a 3% fee. To register visit [mmua.org/events](http://mmua.org/events).

Register by April 11 for best rate. Advance registration ends April 25.