

# TRAINING SYLLABUS

**Course Number:** 6.0.0  
**CEU Assignment:** 0.6  
**NETA CTD:** 8  
**Course Title:** Insulation Theory for Electrical Testing

## Course Description

Introduces the new technician to and provides essential knowledge for the experienced technician on the theory and sciences associated with electrical insulation. This training covers: the characteristics of insulation materials, key terms associated with insulation (dielectric) theory, and the properties of insulating material. This training covers the various methods of non-destructive field testing for insulating material. This is a full day, 8 hour, classroom course.

**Fee / Class Size:** \$450 per trainee, 4 trainee minimum - 12 trainee maximum\*

**Prerequisites:** Proficiency in Basic DC Theory

**Course Duration:** 1 day at 8 hours

## Contact Information

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## Course Objectives

- Explain the three characteristics of insulation materials
- Explain key terms associated with insulation (dielectric) theory
- Describe the properties of insulating materials
- Describe the characteristics of insulating materials
- Describe the non-destructive testing for insulating materials

## Performance Tasks

- Select an appropriate Insulation Resistance Test Set to test both a 15kV cable and 480 volt equipment
- Properly prepare and test a 15kV cable including DAR and PI
- Properly document the insulation testing on 15kV cable
- Properly execute and document an insulation resistance test on a 480 volt MCC bus
- Locate and set up a DC over-potential test set and demonstrate how you would prove the test set is working properly

**Required Student Materials:** PowerPoint (provided)

**Outcome Measurement:** 20 Question Written Test / Practical

**Grading Policy:** Min. 70% to pass / PASS-FAIL

\*Assumes classes are held in Lewisville, TX. On-site training is available for an additional travel charge.