

Power Academy

Introduction to Power System Protection and Controls



4.5 Days | 31 PDHs

This course provides foundational training in the areas of Protective Relays, Protection Schemes, Instrument Transformers, and other equipment used in Power System Protection and Controls.

WHO SHOULD ATTEND?

- Field and Commissioning Engineers and Technicians
- Protection Engineers and Technicians
- Entry-level Engineers and College Graduates

LEARNING EXPERIENCE

This instructor-led course is delivered in our training substation in Lancaster, PA.

The class is designed to provide students with foundational knowledge of Protection & Controls concepts and equipment.

Students will use drawings to conceptualize and analyze protection schemes and applications.

In addition, students are required to complete precourse work prior to attending class.

For more information regarding the course content, delivery dates, and registration, please contact us at: <u>TRCPowerAcademy@trccompanies.com</u>

PREREQUISITES

- Basic understanding of power system theory and operations
- Experience reading and interpreting power system substation electrical drawings

LEARNING OBJECTIVES

- Learn how one-line diagrams relate to protection and controls
- Describe basic Protection Schemes
- Define and describe three types of protective relays: Electromechanical, solid state, and microprocessor
- Describe instrument transformers, including current transformers, voltage/potential transformers, and capacitor-coupled voltage transformers
- Describe protection schemes and applications: Differential, Transformer, Bus, Transmission Line, DCB, POTT, DTT, and PTT
- Describe protection considerations
- Define protection communication-assisted protection, including Power Line Carrier, fiber optics, and microwave