



**Maintenance  
Basics**

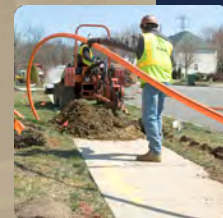


**Overhead  
Distribution**

# **TD & POWER SKILLS<sup>®</sup>**

**Lineworker training for the electric utility industry**

**1-318-767-5802**  
***tdpowerskills.com***



**Underground  
Distribution**



**Substations**



**Transmission**



T&D PowerSkills is a comprehensive, video- and workbook-based lineworker training program that focuses on safety-related work practices that lineworkers need to know. It is designed to help lineworkers be efficient and safe on the job whether they are doing overhead, underground, meter, transmission, or substation work. Both apprentices and journeymen lineworkers will benefit from T&D PowerSkills training units.

## Instructional Features

The video program illustrates electrical lineworker principles and safety practices performed in the field, supported by 2D and 3D graphics, animation, and simulation exercises. The program is designed to engage the trainee in real-life procedures and experiences.

Pre-tests can be designed by the administrator, and quizzes appear throughout each course to keep the instruction challenging. Final unit tests are included in the Instructor's Guide for each course unit. Student Workbooks include USDOL OSHA Regulation 'Snap-Shots' and a Field Performance Requirements (FPR) checklist for documenting skill proficiency development in the field.

## Objective

All T&D PowerSkills course units are arranged in a comprehensive curriculum. Important fundamentals are covered in **Maintenance Basics**, such as electrical safety and basic climbing skills, moving on to more advanced topics in **Overhead Distribution**, such as pole top equipment replacement, and transformer troubleshooting. Specialized training is offered in **Underground**, **Substations**, and **Transmission**, as well.

## Benefits

The benefits of this lineworker training program system include: reduction of learning time, consistency of delivery, better understanding of lineworker safety, skill development monitoring, training documentation system, and ease of remedial or refresher training.

## Structure

The 78 units are divided into groups that represent major components of lineworker career tracks. Single courses, group packs, or the entire program can be purchased.

## Materials

Each course unit includes one DVD (or access to the video online), one Instructor's Guide, and one Student Workbook. Customization for site specific training is available upon request.





## Product Features

- 78 units, spanning the entire range of lineworker training, from entry-level to journeyman. **High quality DVD video, an instructor's guide, and a comprehensive student workbook for each unit. Online video streaming is now also available.**
- Each unit highlights specific **OSHA regulations snapshots** pertaining to the topic discussed, and where to find them in the legal record.
- Each unit has an **FPR (Field Performance Requirements)** checklist, important in documenting field skill proficiency.
- **Routine updating.** Our pledge is that when safety regulations change, we will update the affected unit, and send you a new DVD, at no charge to you.
- With the purchase of a package, you also receive your **first year's membership with ISPC**, at no additional charge (a \$375 value). You will be under no obligation to renew your membership, but of course, we hope you see value in doing so.
- Currently, this material is being used to support several **DOL BAT Certified Programs.**
- Available in units to support an **instructor-led program**, as well as online, to support **self-paced training.** The online Learning Management System (LMS) includes **automated testing and tracking features.**
- **Customization** services available.



**Thank you for your interest in T&D PowerSkills lineworker training material.**

Here are the several options in which to acquire a license to use our material, based on the number of people you have to train and the type of training you would like to do:

- **Traditional DVD delivery model.** In this approach, you would buy individual units that you wish to train with, from our list of 78 titles (attached). Each unit comes with a DVD, an instructor's guide and one student workbook. Video streaming is also available for \$50 per unit, per year. Additional student workbooks are available for \$19.95 each. A rate sheet is attached for this delivery model – the more units you purchase the less the per-unit cost.  
*\* Updates are included at no additional charge. Each update comes with an updated DVD, student workbook, and instructor's guide. Video streaming updates are automatic, if applicable.*
- **Online Learning Management System (LMS).** This delivery model tends to support a self-paced learning system, where the individual student sits down at a computer, logs into the T&D PowerSkills LMS, views the video and digital student workbook, then takes an online test at the end of each unit. At some point, the student comes into a central location for field skill development practice, under the guidance of an experienced Journeyman. Additional information about the LMS option is attached.  
*\* Digital Student Workbooks are \$10.00 per unit when accessed in the T&D PowerSkills LMS. No charge for digital student workbooks when used with blanket access. Updates are automatic at no additional charge.*
- **Hybrid Delivery Model.** This is a combination of both the DVD delivery model and the online Learning Management System (LMS). Pricing is available upon request.  
*\* Updates are equivalent to the above.*
- **Client-hosted model.** This allows the customer internal access to the T&D PowerSkills course content within an in-house or third party hosted Learning Management System. There is an annual subscription and usage fee per unit. Student workbooks are priced separately, and are available in both digital and hard copy format.  
*\* Digital updates are no additional charge. All digital files are provided on a hard drive, unless other media is requested.*
- **The 'Lending Library'** is designed for small apprenticeship programs. You subscribe to the Lending Library for an annual fee, and then you select either 3 units or 6 units (based on the subscription level you have chosen). We send you those units, plus the number of student workbooks you will need. You train, using those units, then when you are finished, return the DVDs, and select new ones to train with. There is a monthly user's fee in addition to the annual subscription fee, and the student workbooks cost an additional \$19.95 each. This is a very cost-effective way to train a small number of lineworkers.  
*\* Updates are included at no additional charge.*



## Learning Management System 2.0 Features

### **Administrative Features**

The T&D PowerSkills Learning Management System provides a comprehensive set of tools to allow administrators to manage student enrollment and monitor their progress through assigned courses.

- Access to create, edit, or delete students and administrators.
- Control administrator permissions with Administrator Groups.
- Restrict student access to courses based on IP address or time of day.
- Administer student Field Performance Review data.
- Review student activity, including student logins, failed login attempts, course access, and tests taken. Each recorded item also captures the student's HTTP User Agent and IP address.
- Set a general pass/fail threshold, or set a pass/fail threshold for individual courses.
- Set prerequisite courses to be completed before students can access courses.
- Create custom course groupings.
- Allow or deny course access after passing the final exam.
- Allow or deny course access based on the number of test attempts.

### **Course Features**

But even more important than having the tools to manage students is how effectively a student is learning. The T&D PowerSkills Learning Management System has been retooled to take better advantage of how adult learning styles have changed over time.

- Course material is divided into shorter, two to five minute sections based on lesson content.
- At the end of each course segment, student engagement is tested with a section quiz that provides the student with instant feedback to how well they're grasping the content.
- Each final test is composed of 20 questions drawn from a larger course pool of 30-50 questions, and randomized so that each student has a unique test.
- Students may change their account information, or reset their password via email.





### **Reporting Features**

- New courses that students have begun during the previous month.
- Progress report allowing the administrator to choose one or more students for display, indicating:
  - Student progress through individual courses.
  - Student's highest and average test grade for individual courses.
  - Completion of Field Performance Review (FPR) documents.
  - Amount of time a student has spent viewing courses either cumulatively or on a course-by-course basis.
  - Number of courses and Field Performance Reviews (FPRs) remaining.
  - Course Enrollment report, indicating new course enrollments for a given period.

Statistics report including:

- Number of active, inactive, and deleted students.
- Students who have completed a test or Field Performance Requirements Document within the last week, and within the last month.
- Ranked list of students who have participated in the Learning Management System.

**NOTE:** Use of the Learning Management System requires the user to have access to a computer, tablet, or smartphone with high-speed Internet access.

**To try the online LMS for yourself,**  
please go online to: <https://preview.tdps.app/signup>

or call us for more information  
Jerry Havens, Director of Sales  
866.880.1380

# Lineworker Training Material Units



## Maintenance Basics Training

- Introduction to T&D Systems
- Transmission
- Distribution
- Substations and Switchyards
- Basic Electricity
- Alternating Current Fundamentals
- Climbing Wooden Poles
- Safety in T&D Maintenance
- Using Tools
- Rigging 1
- Rigging 2
- Electrical Safety
- Hydraulic Derricks
- Material Handling Bucket Trucks
- Bucket Trucks
- System Protection and Monitoring
- Introduction to Metering
- Bucket Truck Rescue
- Safety in Meter Work
- Safety in Substations and Switchyards
- Advanced Rigging

## Substation Training

- Power Transformers 1
- Power Transformers 2
- Circuit Breakers 1
- Circuit Breakers 2
- Voltage Regulators 1
- Voltage Regulators 2
- Capacitors and Reactors
- Relays 1
- Relays 2
- Control Equipment
- High Voltage Terminations

## Transmission Training

- Transmission Structures
- Transmission Line Safety
- Climbing Steel Poles and Towers
- Transmission Line Installation
- Rigging for High Voltage Work
- Working on De-energized Transmission Lines
- Transmission Line Repair - Hot Sticks
- Transmission Line Repair - Bare Hand Method

## Underground Training

- Underground Residential Distribution Systems
- Safety in Underground Line Maintenance
- Underground Cable Installation
- Pad-Mounted Transformers and Switchgear
- Cable Splicing 1
- Cable Splicing 2
- Cable Terminations
- Locating Primary Faults
- Locating Secondary Faults
- URD Troubleshooting

## Overhead Distribution Training

### De-energized System Units

- Overhead Distribution Systems
- Service Installation
- Pole Framing and Guying
- Setting and Replacing Poles
- Safety in Overhead Line Maintenance
- Multimeter Operation
- Using Line Test Equipment
- Tree Trimming
- Safe Bucket Truck Operation
- Working on Distribution Poles
- Distribution Line Safety
- Care and Testing of Tools and Equipment
- Pole Top Equipment-Reclosers & Switching Devices
- Pole Top Equipment-Transformers
- Pole Top Equipment-Voltage Regulators
- Pole Top Equipment-Capacitors
- Transformer Connections 1
- Transformer Connections 2
- Power Quality

### Energized System Units

- Distribution Line Installation and Removal
- Distribution Line Replacement
- Distribution Line Repair - Gloves
- Distribution Line Repair - Hot Sticks
- Transformer Troubleshooting
- Troubleshooting Overhead Lines
- 34.5 kV Rubber Glove Work
- Overhead Troubleshooting 1
- Overhead Troubleshooting 2 - Emergency Conditions



## ***Traditional Apprenticeship Model***

### **Apprenticeship Year 1**

- Introduction to Transmission and Distribution Systems
- Transmission
- Substations and Switchyards
- Distribution
- Underground Residential Distribution Systems
- Basic Electricity
- A/C Fundamentals
- Safety in Transmission and Distribution Maintenance
- Safety in Underground Line Maintenance
- Electrical Safety
- Distribution Line Safety
- Overhead Distribution Systems
- Climbing Wooden Poles
- Safety in Overhead Line Maintenance
- Hydraulic Derricks
- Using Tools
- Rigging 1
- Rigging 2
- Pole Framing & Guying
- Setting & Replacing Poles

### **Apprenticeship Year 2**

- Bucket Trucks
- Material Handling Bucket Trucks
- Safe Bucket Truck Operations
- Service Installation – Overhead & Underground
- Introduction to Metering
- Safety in Meter Work
- Bucket Truck Rescue
- Working on Distribution Poles
- Care and Testing of Tools and Equipment
- Underground Cable Installation
- Pad-Mounted Transformers & Switchgear
- Cable Splicing 1
- Cable Splicing 2
- Cable Terminations
- URD Troubleshooting
- Locating Secondary Faults
- Locating Primary Faults
- System Protection and Monitoring
- Multimeter Operation and Use
- Using Line Test Equipment
- Transformer Connections - Basic & Advanced





### **Apprenticeship Year 3**

- Tree Trimming
- Pole Top Equipment and Replacement - Transformers
- Pole Top Equipment and Replacement - Cutouts & Reclosers
- Pole Top Equipment and Replacement - Switching Devices
- Pole Top Equipment and Replacement - Capacitors
- Pole Top Equipment and Replacement - Voltage Regulators
- Distribution Line Installation & Removal
- Distribution Line Replacement
- Distribution Line Repair – Gloves
- 34.5 kV Rubber Glove Work
- Distribution Line Repair - Hot Sticks
- Troubleshooting Overhead Lines
- Transformer Troubleshooting
- Overhead Troubleshooting 1
- Overhead Troubleshooting 2

### **Apprenticeship Year 4**

- Advanced Rigging
- Safety in Substations and Switchyards
- Control Equipment
- Capacitors and Reactors
- Voltage Regulators 1
- Voltage Regulators 2
- Power Transformers 1
- Power Transformers 2
- Circuit Breakers 1
- Circuit Breakers 2
- Relays 1
- Relays 2
- Power Quality
- Transmission Line Safety
- Transmission Structures
- Climbing Steel Poles and Towers
- Transmission Line Installation
- Rigging for High Voltage Work
- Working on De-energized Transmission Lines
- High Voltage Terminations
- Transmission Line Repair - Hot Sticks
- Transmission Line Repair - Barehand Method



## ***Testimonials***

"... your instructional material has been an easy transition for me to deliver instruction to the student."

*Steve Addy, Instructor  
Dakota County Technical College*

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"The operations management team is very pleased with the caliber of apprentices who have attended the T&D PowerSkills classes. The management team attends each field testing and are very satisfied with the apprentice's abilities."

*Leroy Lee, Trainer  
CoServe, Corinth, TX.*

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"Willbros T&D Services began a Lineman Training Academy in September of 2012. We wanted to be able to train a variety of individuals, primarily Veterans, on all aspects of line work in an 8 week course that would involve 4 weeks of classroom training and 4 weeks in the field building real jobs for our customers. When we started looking for materials it was immediately obvious to us that T&D Power Skills was the direction we wanted to go. Not only did they offer a full menu of classroom materials but they were complemented by a full menu of field evaluations. We have been extremely pleased with their services and will be using more of their materials as our students are put on crews and return on a yearly basis for more advanced instruction in the various skill sets needed to ensure proper education and skills training in both overhead and underground line work."

*John Morton, Director of Health, Safety, and Training  
Willbros T&D Services.*

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"There are currently over 40 Public Power Municipal Cities/Towns in North Carolina that are using T&D PowerSkills program for Lineman training"

*Jeff Vaughn, Safety & Training  
ElectriCities of NC*

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"We use T&D PowerSkills and have seen a huge improvement in our apprentice program. I would and have recommended this program to any utility I come across looking to better their apprentice program and company as a whole"

*Brandon Johnson, Training Supervisor  
Bluebonnet Electric Cooperative, Inc.*

"...we are well pleased with the program and materials and have completed two classes with our apprentices. It is great material and a valuable tool for me to use in our training program"

*Chris Stewart, Safety and Training  
Hi-Tech Electrical Contractors*

"I have been involved in training apprentices/journeyman linemen all over the nation since 2001 (all but two years) and this program is hands down the best program I have found, especially when it comes to videos being up-to-date."

*Craig Cagle, Supervisor, Lines Training and Tools  
NV Energy*





## Demo Package Request Form

|                                 |  |
|---------------------------------|--|
| Organization Name               |  |
| Representative Name & Title     |  |
| Mailing Address                 |  |
| Shipping Address (if different) |  |
| Email Address                   |  |

Please forward a **Demo Package** for the above organization to preview.  
*(Includes one DVD & five demo student workbooks)*

Return this form using one of the following methods

**Email** to: [Jerry@tdpowerskills.com](mailto:Jerry@tdpowerskills.com)

**Mail** to: 3504 Parliament Ct. Alexandria, LA 71303