

Promo Code: X05

Introduction to General Maintenance

- Electrical Safety and PPE
- Lockout/tagout & Multimeters
- AC vs. DC
- Single Phase vs. Three Phase
- Transformers and Electrical Distribution
- General Wiring Techniques
- Electric Motors
- Reading Electrical Schematics
- Preventative Maintenance
- HVAC System Fundamentals
- Bearing Fundamentals

Troubleshooting Essentials

- Troubleshooting any problem
- Problem statements
- Brainstorming methods
- Verifying the cause
- Selecting the fix
- Test equipment
- Potential problems
- Time efficient alternatives
- Root cause of the problem
- Documentation and follow-up

Maintenance Fundamentals

A 4-day workshop that will put your facility on a path to better safety and productivity



"The class was very in depth..."

The Fundamentals of workplace safety and the basics of electrical, mechanical and HVAC maintenance

Examines how core principles and practices of troubleshooting apply to nearly any maintenance task

- Reserve your space now! **CALL 1-877-978-7246**
- Check us out online at live.tpctraining.com for a complete listing of all seminars coming to your area
- This seminar is also available as an **Online Simulcast** or can be brought **On-Site** to your facility

WHAT YOU WILL TAKE HOME

- Comprehensive classroom materials
- A Personalized Training Certificate with 0.8 TPC Training Continuing Education Units for each day attended, 1.6 for both days.
- All the information you need from asking our instructors specific questions about your own unique equipment or facility.

CONTINUING EDUCATION

For simulcasts and classroom instructor-led, live courses, the student will receive a three-star certification of completion showing 8 classroom hours (.8 TPC Training CEUs) per day attended. Most employers and many government agencies accept TPC Training CEUs to fulfill their continuing education requirements. TPC Training also offers CEUs toward state license renewal, which are accepted by over 90 electrical, water, HVAC, and professional engineering state licensing agencies. CEU availability and the CEUs earned per course varies by each state licensing agency. For more information about live CEUs and state licensing agencies, call 303-867-5035.



▶ *“The instructor was great and very knowledgeable.”*

▶ *“The class was very in depth...”*

▶ *“Excellent class. Good trainer.”*

Introduction to General Maintenance

SEMINAR OVERVIEW

This two-day course – offered for the first time and on a limited basis – is designed to meet the essential needs of every maintenance technician in every type of facility. It is the first course of its kind to cover the fundamentals of electrical, HVAC, and mechanical maintenance tasks in a single two-day seminar, along with the basic safety skills that every worker needs.

This is an ideal starter course for new hires as well as experienced technicians who made need a refresher, and an excellent base for the more in-depth training we offer in our electrical, HVAC, and mechanical categories. Combine it with our new Troubleshooting Essentials for a 4-day workshop that will put your facility on a path to better safety and productivity.

DISCUSSION TOPICS

Basic Electrical Skills:

- Electrical Safety in the workplace: 2018 NFPA 70E, OSHA
- When and how to select Personal Protective Equipment (PPE)
- Lockout/tagout (LOTO)
- Multimeter Selection and Safety
- Electricity Fundamentals (Voltage, Current, and Resistance)
- AC vs. DC and their Applications
- Single Phase vs. Three Phase
- Transformers and Electrical Distribution
- How to Select and Replace Switches and Receptacles
- General Wiring Techniques
- Checking and Replacing Fuses
- When and Where should GFCI's be Used
- Replacing Light Fixtures/Ballast or Replace with LEDs
- Electric Motor Basics and Troubleshooting
- Fundamentals of Reading Electrical Schematics
- Preventative Maintenance Best Practices

Basic Mechanical and HVAC Skills:

- Mechanical Safety in the Workplace
- Working with hand tools
- Ladder Safety
- Chemical Handling safety
- Proper Lifting Techniques
- HVAC System Fundamentals
- Bearing Fundamentals, Types, Installation, and Applications
- Lubrication
- V-Belt Types, Alignment, and Proper Tensioning Procedures
- Basics of Pumps, Blowers, and Fans
- Fire Extinguisher Use and Inspection



Troubleshooting Essentials

SEMINAR OVERVIEW

Troubleshooting is at the core of plant and facility maintenance, and the core principles and practices of troubleshooting apply to nearly any maintenance task, from electrical to HVAC to pumps and motors. This highly versatile 2-day course, suitable for any maintenance role, provides the building blocks to apply a consistent troubleshooting methodology to any common equipment problem.

Students who complete the course will be equipped with techniques they can put into practice immediately to reduce downtime in their facility. When combined with our General Maintenance class in a 4-day Maintenance Fundamentals Workshop, this course delivers a complete foundation for successful facilities.

DISCUSSION TOPICS

Developing a Logical and Systematic Troubleshooting Approach

- The proper steps to troubleshoot any problem
- Developing the problem statement
- Proper brainstorming methods
- Verifying the cause
- Selecting the fix
- Working with machine operators / asking questions
- Using data available to quickly find problems
- Teamwork troubleshooting approach
- Properly using test equipment to diagnose problems
- Using your senses / observations to rule out possibilities
- Adapting troubleshooting to any piece of equipment or application
- Troubleshooting by job title

Interactive classroom troubleshooting activities and role-playing

- Description of situation
- Class discussion of potential problems
- Teamwork-based in-class brainstorming sessions
- Instructor-guided troubleshooting process to lead to a solution
- Discussing the best/most time efficient alternatives to solving a problem
- Problems range from mechanical to electrical to customized problems based on the needs of the class
- Scenarios based on the attendee's unique issues in the workplace
- Exploring the root cause of the problem
- Preventing the problem from re-occurring through proper documentation and follow-up

BRING THE TRAINING ON-SITE TO YOUR FACILITY

live.tpctraining.com/on-site

TPC Training conducts hundreds of on-site trainings at customer facilities each year. Every public seminar class in our Course Catalog can be conducted on-site, with the same expert instructors. To arrange an on-site training, call or email us at onsite@tpctraining.com.

On-site training is also available in a Live Simulcast Seminar format, allowing teams in multiple facilities to join live training via a web connection. This is an excellent option for overseas facilities and geographically dispersed teams.

Advantages of On-Site Training

- Less Lecture – Our courses deliver targeted training tasks relevant to daily work.
- Cost Savings — The larger the group, the more you save. You also save time and travel costs by keeping workers onsite.
- Customized Content — The instructor can tailor the seminar to your facility, including discussion of your specific equipment.
- Flexibility — Our training can accommodate multiple shifts and different start and end times.
- Best Results — On-site training combines the knowledge retention of live training with the ability for workers to learn in their own environment.

Contact us if you have any questions and to get a no-obligation quote.

▶ ***“The class and instructor were great. Learned a lot.”***

▶ ***“I will be able to use everything I learned, at work, at home, and in the field.”***

▶ ***“Great seminar. Thanks.”***



Daily Schedule

7:30 am Registration
 8:00 am Class Begins
 12:00 -1:00 pm Lunch
 4:30 pm Class Ends

Is Live Training Right for You?

Our intensive courses, held in 100+ cities, on-site at our customers’ facilities, and online via simulcast, are simply the best way to gain, refresh, and advance essential maintenance skills quickly and apply them in the workplace.

What makes our live training different?

1. Personalization – Our classrooms are dynamic environments with small class sizes, allowing students to discuss the needs, challenges, and equipment in their own workplace.
2. Expertise – Our team of more than 60 expert instructors is the most seasoned in the industry, with more than 200,000 classroom hours between them, plus deep field experience.
3. Participation – We employ demonstrations, problem-solving exercises, teaching aids, and in some courses, hands-on equipment to enhance engagement and practical skill acquisition.
4. Reliability – All of our seminars, on-sites, and simulcasts are backed by our Money Back Guarantee, so you can book with confidence that we’ll deliver the training outcomes you need.

Training Philosophy

TPC Training’s curriculum is designed to provide complete coverage of essential industrial maintenance skills, across a full range of electrical training, HVAC, plant management, and mechanical & industrial topics. Our “see, touch, do” instructional approach allows us to impart practical skills in an intensive format.

The most vital part of our seminar format is the coverage that goes beyond the course outline. Our small class sizes allow each instructor to tailor the course to address students’ individual needs, concerns, and experience levels. Our instructors deliver content with hands-on exercises, demonstrations role-playing, visuals, and case study discussions.

About Our Instructors

Our team of 60 field-experienced instructors is the backbone of training seminar schedule, from HVAC certification and maintenance to PLC courses. Together they’ve logged more than 200,000 hours in the classroom — by far the deepest experience in the industry.

All of our instructors must meet three core requirements:

1. Relevant formal education in the seminar topic area
2. Documented hands-on work experience in their area
3. Specific experience as a maintenance training instructor

Many of our instructors’ credentials extend even further, including experience as authors, speakers, and industry organization board members within their fields of expertise. And they stay current on technology and industry trends through their own ongoing education, field visits, and peer review meetings.

The result of our emphasis on instructor quality is a consistently high standard of delivery across all of our 2000+ annual seminars. Workers leave our seminars ready to apply what they’ve learned to make an immediate impact at their jobs.

No Risk Registration & Money Back Guarantee

Not sure whether you or your employees will be able to attend an upcoming seminar? You can reserve your space in the class at any time and cancel without penalty. Cancellations made more than 14 days prior to the seminar may be refunded or rescheduled. Cancellations made within 14 days may be rescheduled for any future topic and/or date.

Not sure which employees you’ll send for training? You can also freely make substitutions among attendees up to the time of the seminar.

Phone: 1-877-978-7246

Website: live.tpctraining.com

Fax: (303) 531-4565

E-mail: customerservice@tpctraining.com

Mail: TPC Training, P.O. Box 3397, Englewood, CO 80155

Join our classroom seminars from virtually anywhere. Attend online: live.tpctraining.com/simulcast



TPC Training is proud to extend our legacy in instructor-led maintenance training to web-based learning with our new, industry-first **simulcast** seminars. Our simulcast option allows students to connect to a live classroom seminar via a web link, with the ability to participate fully in the classroom dialogue, exercises, and Q&A. Online participants get all the benefits of the full classroom experience, plus the convenience of remote access.

Can’t leave the worksite? We’ve got you covered. Can’t find a classroom seminar that fits your location and schedule? A simulcast is ideal for you.

Features include:

- Two full days of live, interactive instruction from a TPC Training instructor
- All classroom materials in PDF format
- Certificate of completion for 16 hours of live training
- Full technical support to ensure your online experience is as rewarding as being in the classroom

Register now for:

- Air Conditioning and Refrigeration
- Basic Electricity for the Non-Electrician
- Boiler Maintenance and Safety
- Chilled Water Systems
- Effective Maintenance Planning and Scheduling
- Arc Flash Electrical Safety NFPA 70E®
- General Maintenance
- Generators and Emergency Power
- High Voltage Electrical Safety Training
- HVAC Electrical Controls & Air Distribution
- Understanding and Troubleshooting Hydraulics
- Motors, Drives and Control Circuits
- National Electrical Code®
- Photovoltaic Solar Power
- Predictive Maintenance
- Effective Maintenance Planning and Scheduling
- Pump Repair and Maintenance
- Electrical Ladder Drawings, Schematics & Diagrams
- Troubleshooting Essentials