



Solutions Catalog

for Tennessee Business
and Industry

SOLUTIONS *for Tennessee Business and Industry*

■ PERFORMANCE SOLUTIONS

- Lean
 - Lean Manufacturing Training
 - Lean Manufacturing Implementation
- Leadership and Supervision
- Quality

■ SUSTAINABILITY SOLUTIONS

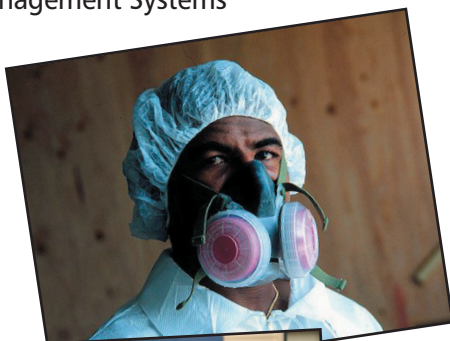
- Energy Efficiency
- Environmental Compliance
- Environmental Management Systems

■ REGULATORY SOLUTIONS

- Confined Space
- Hazwoper/Hazardous Waste Management
- Healthcare Emergency Preparedness
- OSHA — Compliance
- OTI (OSHA Training Institute)
- Technical Rescue Programs

■ GROWTH SOLUTIONS

- Economic Development
- Innovation and Technology Acceleration Services
- Procurement Technical Assistance Center (PTAC)



PERFORMANCE SOLUTIONS

■ LEAN MANUFACTURING

(NOTE: See Innovation and Technology Acceleration Services in Growth Solutions for additional course in Lean Product Development.)



LEAN MANUFACTURING TRAINING

- **LEAN MANUFACTURING OVERVIEW:** This course demonstrates a systematic approach to reducing costs and lead times by continually reducing non-value added activities. Lean Manufacturing tools improve the flow of information and materials that will increase organizational productivity, competitiveness and profitability. With a combination of classroom training, real-world examples and hands-on simulations, participants will discover ways to identify and eliminate or reduce wastes in the manufacturing process.
- **LEAN CERTIFICATE SERIES:** The Lean Certificate Series is a five-day “boot camp” that prepares Lean Leaders. Participants complete this training ready to take on key roles in an organization’s implementation of Lean Continuous Improvement.
- **KAIZEN FACILITATOR TRAINING:** Kaizen events are the vehicle to implementing Lean tools and concepts. Kaizen events are well-scoped improvement efforts that utilize a team-based approach to eliminating wastes. This course is designed to teach a standard Kaizen process that can be used for implementing any Lean tool, such as quick changeover, 5-S, cellular, process layout and total productive maintenance.
- **TRAINING WITHIN INDUSTRY:** TWI helps develop the skill sets for floor managers and associates to effectively work within a manufacturing environment. Consider it if you are having process variation or product quality problems associated with methods or people, you are trying to standardize process operations to make them more consistent, or if employee turnover is high and you need quick, easy solutions to new employee training.
- **TOYOTA KATA:** An element of the Toyota Production system focusing on the daily management and coaching routine that maintains focus and energy on the goal of improvement. There is activity at every process daily to advance the process toward the vision. The Toyota Kata management method emphasizes knowledge management and how to develop the organizational capacity to innovate.

LEAN MANUFACTURING IMPLEMENTATION

These topics are presented on-site and include training followed by hands-on implementation.

- **VALUE STREAM MAPPING:** Value stream mapping focuses on improvement efforts, and pinpoints solutions that give the most value for money, time and energy. Value stream mapping creates a material and information flow map of a product family.
- **LEAN OFFICE:** With a combination of classroom training, real-world examples and hands-on practice, discover how to identify and eliminate or reduce the waste in administrative processes. Participants learn Lean definitions, along with Lean tools and techniques such as value stream mapping for the office. By the end of the second day, participants develop a value stream map that identifies the most significant improvement opportunities.
- **LEAN OFFICE FOR GOVERNMENT:** With a combination of classroom training, real-world examples and hands-on practice discover how to identify and eliminate or reduce the waste in governmental administrative processes. Participants learn Lean definitions, along with Lean tools and techniques such as swim lane mapping to identify improvement opportunities.

• **WORKPLACE ORGANIZATION AND VISUAL CONTROLS (5-S SYSTEM):**

5-S is an organizational technique that helps streamline the workplace. By using this systematic method, participants learn to create a safer, cleaner and more organized arrangement of the workplace with a specific location for everything. Learn to eliminate items that are not needed, and see lasting productivity improvements from these simple techniques.

• **TOTAL PRODUCTIVE MAINTENANCE:** Total Productive Maintenance (TPM) harnesses the participation of all employees to improve production equipment's availability, performance, quality, reliability and safety. Total Productive Maintenance helps develop the skill sets for floor managers and associates to effectively maintain manufacturing equipment at peak operating effectiveness.

• **MISTAKE PROOFING:** This event provides methods for increasing the visibility of errors, improving reaction time to errors and creating systems to prevent errors from recurring.

• **QUICK CHANGEOVER/SETUP:** This tool reduces the time lost to setups and changeovers while increasing the available time of production equipment. Based on principles of single minute exchange of dies (developed by Shigeo Shingo), this event uses classroom training and simulations to demonstrate methods.

• **PULL/KANBAN SYSTEMS AND CELLULAR FLOW:** Pull/Kanban is based on the concept of building products based on actual consumption. The system uses visual signals when parts need to be replaced. Participants learn how to control shop floor inventory and production schedules by implementing pull systems. Cellular Flow is the linking of manual and machine operations into the most efficient combination of resources to maximize value-added content while minimizing waste.

• **RAPID SOLUTIONS:** Companies often do not have the financial or manpower resources to challenge long-term strategic improvement projects. In addition, many times when a company embarks on a long-term project, it does not fully realize the potential impact because the overall culture does not change to one of continuous improvement. Rapid Solutions is designed to provide a simple tool that will allow associates/operators to continually analyze their processes at a micro level, and identify and implement rapid improvements providing impact for the larger value stream.

WHAT PEOPLE ARE SAYING ABOUT OUR TRAINING COURSES

“ I liked the open discussion that pertained to specific issues faced by class members and examples by instructors.

A must have!!!

I learned a lot and am ready to start implementing some of these ideas.

“We are going in the right direction to change our culture.

This is a great set of tools to improve our overall performance.”

CLIENT SITE TRAINING AND CONSULTING SERVICES

Lean Manufacturing Audits

Lean Certificate

Lean 101

Kaizen Facilitator Training

Training Within Industry
Job Instruction
Job Relations
Job Methods



VSM

Lean Office

Lean Government

Workplace Organization
– 5S

TM

Flow Systems

Rapid Solutions

LEADERSHIP AND SUPERVISION PROGRAM

This program is perfect for those about to move into a leadership role or current managers wishing to hone their skills. The Leadership and Supervision program allows participants to learn to be effective leaders and to be able to explore leadership and management on-the-job.

Program participants will be taught by industry leaders, experienced coaches and management professionals who will cover topics including the fundamentals of leadership, communication, coaching for improved performance, problem solving, health and safety in the workplace, resolving conflicts and more.

- **DISC Assessment: Self-Awareness Inventory**

The disc assessment will provide an opportunity to learn more about you, others and how to deal in situations where interpersonal relationships are involved. Your personal assessment will be used to assess one's self and help understand how one person would be likely to react in specific team, management or leadership situations, given her or his disc style.

- **Essential Skills of Leadership**

Essential Skills of Leadership is the first step to developing successful managers. By focusing on three critical management skills, the program establishes a methodology for productive interactions between team members and team leaders. Essential Skills of Leadership helps experienced managers, new managers, and aspiring managers refocus on the basics - the skills required to manage the individual while also leading the team.

- **Essential Skills of Communicating**

Essential Skills of Communicating provides the tools necessary to develop clear, concise messages. Focusing on communication as a two-way process, the program can help even experienced managers improve their messages by making them clear, well organized and aimed at the needs and interests of the listener. By developing the essential skills of communicating, managers improve relations with their team members and increase productivity.

- **Training Within Industry: Job Relations**

Job Relations training teaches supervisors how to handle problems, how to prevent them from occurring, and, most importantly, it aids in developing a logical, common sense approach to handling issues with a people-centric view. The core elements of this course are extremely conducive to teaching the basics of consensus building and individual problem solving. This course lays the groundwork upon which you can build the next step of stability into your organizations process.

- **Resolving Conflicts**

Resolving Conflicts helps managers develop skills to identify the source of team member conflicts. Using effective communication and management techniques, managers can help individuals understand another point of view and move beyond the conflict.

- **Motivating Team Members**

Motivating Team Members opens each leader's thinking about the answers to how to motivate and retain employees. It explores what motivation truly is and how it works and explores how motivation is different for each individual. It helps leaders understand what they can do to create an improved work environment that will motivate members of their team. Motivating Team Members helps managers learn the four stages to influence a team member to perform a task, while creating a work environment that will motivate higher performance.

- **Developing and Coaching Others**

Developing and Coaching Others educates managers to effectively and successfully develop and coach their team leaders to become better and more consistent performers. The program will help your managers learn the specifics of how they can effectively impact the learning process and coaching moments of their teams to make a marked difference and quicker performance development.

- **Diversity Awareness**

The Diversity Awareness course provides team members with the tools that show them how to understand and respect people of other cultures. The course also helps team members develop the skills to gain greater understanding and respect from others. In addition, the course highlights how to successfully create a climate where team members appreciate differences and utilize these differences to improve interaction, increase problem solving, and promote innovation.

- **Supervisory Fair and Best Practices**

State and federal legislation have covered virtually every aspect of managing. Even without laws, most of the required practices constitute sound human resource management as they involve treating people fairly. This workshop is designed to teach managers and/or supervisors the basic guidelines that should reduce potential litigation and help prevent unfair and illegal discrimination in the workplace.

- **Lean Manufacturing & Lean Administration 101**

This course will provide Lean best practices for both novice and experienced shop floor and administrative leaders/supervisors. Course participants will be prepared to identify process waste while learning opportunities to reduce overall organizational financial cost. Moreover, workshop objectives can be transferred to any process within your organization.

- **Organizational Problem Solving**

Solving organizational problems often becomes difficult because the root cause is improperly defined or identified. In the rush to complete a project or meet the next deadline, people typically take action on the first solution that appears when multiple solutions are possible. Your ability to solve problems depends on your proficiency at addressing issues and problems as they arise as well as continually seeking improvement on existing methods and procedures.

- **Toyota Kata: Identifying Strategic Opportunities and Changing Workplace Culture**

Toyota Kata is an element of the Toyota Production system focusing on the daily management and coaching routine that maintains focus and energy on the goal of improvement. There is activity at every process daily to advance the process toward the vision. The Toyota Kata management method emphasizes knowledge management and how to develop the organizational capacity to innovate.

- **Health and Safety: Identifying Common Issues in Your Work Environment**

This training session highlights practical approaches to accident prevention. Employers and employees are actively encouraged to participate in and support company safety efforts. Safety is a team effort. A basic understanding of people is important to the success of a company's safety operation.

- **Quality Standards in Today's Global Economy**

The reality of the global market and the increased competition it has precipitated has caused many companies to look seriously at management strategies based on quality instead of quantity. This training session examines the advantages of and suggestions for implementing a quality management program.

LEADERSHIP PLUS+

- **LEADING SUCCESSFUL PROJECTS:** Leading Successful Projects provides the structure, process and tools to master the art and science of project management. This four-module program enables managers to identify and work with the key variables that impact how projects are defined, planned and implemented.
- **HIRING WINNING TALENT:** Hiring top quality employees, those who rapidly get up to speed and who remain with the organization for a substantial time, doesn't happen with guesswork. It happens by applying the powerful, structured, analytical process approach taught in this two-module program.
- **MOTIVATING TEAM MEMBERS:** In this course, participants learn the four stages to influence a team member to perform a task, while creating a work environment that motivates higher performance. Learners participate in reading, discussion, assessments, diagnostics, small group exercises and rehearsal modeling with real life situations and facilitator coaching.
- **SOLVING WORKPLACE PROBLEMS:** Solving Workplace Problems doesn't focus only on addressing problems that occur, it also addresses how to look at current practices to design them to be more efficient and effective. This program presents a five-step methodology to identify and solve critical workplace problems. No leader is fully capable without understanding this methodology.
- **DEVELOPING AND COACHING OTHERS:** Developing and Coaching Others is about how managers can effectively and successfully develop and coach their team members to become better and more consistent performers. The program helps managers learn the specifics of how they can effectively impact the learning process and coaching moments of their teams to make the difference.
- **RETAINING WINNING TALENT:** This program provides skills, tools, and a research-based approach that helps team leaders rate the attrition risk of each team member, surface individual team members' retention needs, increase the level of commitment from each team member, and, most importantly, develop and implement a Retention Action Plan designed to increase retention for the entire team.

■ QUALITY

- **ISO 9001: 2015 INTERNAL AUDITOR:** This in-depth interactive course is for those currently involved with quality auditing, and for new internal auditors who wish to become proficient using this standard. Internal auditing is among the most important steps on the road to achieving, maintaining and improving your quality.
- **ISO 9001 SERIES OF STANDARDS OVERVIEW:** This is an overview of requirements for successful implementation and maintenance of ISO 9001:2015 Quality Management Systems
- **ISO/TS 16949 INTERNAL AUDITOR:** This in-depth, interactive course is for those involved with automotive supply chain manufacturing and quality management system audit requirements. This course helps maintain the internal audit team's credentials or train new talent.
- **ISO/TS 16949: 2009 AND ISO 14001: 2015 EMS:** This in-depth, interactive course is for those involved with automotive supply chain manufacturing and need to meet joint quality/environmental management system audit requirements. This course helps maintain the internal audit team's credentials or train new talent.

- **2009 INTERNAL AUDITOR: DISCIPLINED PROBLEM SOLVING OVERVIEW:**

This course provides a comprehensive overview of some effective, systematic methods for solving difficult problems that arise in manufacturing related organizations.

- **DISCIPLINED PROBLEM SOLVING:** This interactive course is for personnel who must implement and maintain an effective quality system, and for those who would benefit from learning basic root cause analysis and problem-solving skills. Participants will increase their ability to apply disciplined problem-solving methods, and learn how these methods aid continual improvement and conformance with quality management standards.

- **COST OF QUALITY:** This workshop is devoted to an understanding of appraisal costs, internal and external corrective action, and preventive costs associated with assuring customer quality. Learn about the components that make up each of these costs and what your organization can do to reduce them. Learn how to build a proactive quality management system and become an organization that is focused on continual improvement.

- **SIX SIGMA GREEN BELT:** The Green Belt series of courses is intended for those interested in improving current processes. By applying Six Sigma tools to projects closely related to their current duties, Green Belts create significant, measurable impacts for businesses.

- **SIX SIGMA BLACK BELT:** This series of courses is intended for those interested in improving processes in a full-time role. Black Belts might apply the Six Sigma tools to any process within an organization, helping create tremendous measurable impacts for businesses.



CLIENT SITE TRAINING AND CONSULTING SERVICES

Auditor Training – Quality

Auditor Training –
Environmental



Problem Solving
and Consulting

Six Sigma Consulting

Energy Assessments
and Consulting



SUSTAINABILITY SOLUTIONS

■ ENERGY EFFICIENCY

- **ENERGY 101 INDUSTRIAL ENERGY EFFICIENCY:** This class is an introduction to energy conservation measures (ECM) with a look at opportunities based on industrial energy savings. Included in this class are the typical modules related to equipment generally found in a manufacturing or industrial setting.

- **FIREFIGHTER/FIRST RESPONDER PHOTOVOLTAIC HAZARDS AND SAFETY TRAINING PROGRAM:**

The four-hour firefighter training course assists first responders in understanding concerns of photovoltaic (PV) systems and the potential impact on firefighting operations. These concerns included firefighter vulnerability to electrical and casualty hazards when mitigating a fire involving PV systems.

■ ENVIRONMENTAL COMPLIANCE

- **REGULATORY REPORTING: EPCRA TIER II:** Learn to determine reporting requirements for the EPCRA Tier II report and to gather, organize and file information with appropriate authorities. Organizations must file an annual EPCRA Tier II report if the workplace contains an extremely hazardous substance in an amount greater than threshold planning quantities or 10,000 pounds of an OSHA hazardous substance.

“Was well worth the cost and would recommend for other EHS professionals.”

- **FORM R REPORT:** The Environmental Protection Agency (EPA) offers free online training, and CIS delivers in-plant training upon request.

- **INDUSTRIAL AIR REGULATIONS:** Learn updates, dos and don'ts, and basic emission calculation formulas from TDEC representatives, who are also the people responsible for permits.

- **HAZARDOUS AND SPECIAL WASTES:** Facilities generating special or hazardous wastes benefit from this workshop that provides information needed to comply with generator requirements. It also covers the Resource Conservation and Recovery Act, Tennessee Solid Waste Management regulations and waste reduction planning requirements.

- **TENNESSEE ENVIRONMENTAL REGULATORY OVERVIEW (TERO):** This course helps businesses stay up-to-date and in compliance with the most common air, solid, and hazardous waste, and water regulations as enforced by the Tennessee Department of Environment and Conservation and the U.S. Environmental Protection Agency.

- **ENVIRONMENTAL COMPLIANCE TRAIN THE TRAINER:** Employees need the tools to understand, teach and monitor environmental compliance. This three-day program is for the worker or supervisor who must make environment-related business presentations or train personnel.

- **INTRODUCTION TO INDUSTRIAL WASTEWATER TREATMENT:** This two-day training session covers physical, chemical, and biological treatment of industrial wastewater. The first day covers industrial wastewater characteristics, pollution prevention measures, physical treatment (sedimentation, filtration, etc.), chemical treatment (metals precipitation, ion exchange, etc.), and an overview of biological treatment. The second day covers activated sludge basics, types of activated sludge processes, activated sludge microbiology, activated sludge process control, and troubleshooting. Each day ends with a hands-on case study involving use of information covered in the course.

- **INDUSTRIAL WASTEWATER TREATMENT WORKSHOP:** This two-day training session covers physical, chemical, and biological treatment of industrial wastewater. The first day covers industrial wastewater characteristics, pollution prevention measures, physical treatment (sedimentation, filtration, etc.), chemical treatment (metals precipitation, ion exchange, etc.), and an overview of biological treatment. The second day covers hydroxide precipitation of metals, metals precipitation treatment options, effects of chelators on metals removal, sulfide precipitation and clarifier performance, and ion exchange/other processes for metals removal. The second day ends with a hands-on case study involving use of information covered in the course.

■ ENVIRONMENTAL MANAGEMENT SYSTEMS

- **INTERNAL AUDITOR 14001:2015:** This class is designed to develop in-house environmental auditing capacity for industrial manufacturing sites. This class satisfies training requirements for auditors mandated by the ASQ/ISO-14001:2015 Environmental Management System standard. Each student will receive a copy of the ISO-14001 environmental standard and the ISO19011 auditing standard plus hands-on training and mentored auditing experience.

CLIENT SITE TRAINING AND CONSULTING SERVICES

Internal Auditor 14001

Regulatory Reporting –
EPCRA Tier II Assistance



Form R Reporting
Assistance

Hazardous and
Special Waste Assistance

Firefighter/First Responder
Photovoltaic Hazards and
Safety Training Program

WHAT PEOPLE ARE SAYING ABOUT OUR TRAINING COURSES

“

Class professional, content and instructor.

I now know what I did not know I didn't know!

Very productive use of a day.

The instructor is knowledgeable and made the tasks enjoyable.

”

The course instructor offered real life examples from his past experiences — both good and bad.



REGULATORY SOLUTIONS

HEALTH AND SAFETY

(NOTE: See Sustainability Solutions for additional Environmental Regulatory Compliance courses.)

■ CONFINED SPACE PROGRAMS

- **8-HOUR CONFINED SPACE OPERATIONS OVERVIEW (CSO/OTI 7300):** OSHA regulation 29 CFR 1910.146(g) requires an employer to train employees who enter, attend to or supervise confined spaces. In this introductory course, learn to identify confined spaces, the major confined space hazards, principles of ventilation, entry permitting and the requirements of a permit-required confined space program.
- **16-HOUR CONFINED SPACE OPERATIONS:** This 16-hour program includes and expands upon the information provided in the Confined Space Overview Course.
- **16-HOUR MANHOLE OPERATIONS AND SAFETY TRAINING:** All personnel entering utility access points, vaults or other utility installations must be trained for proper entry. Additionally, personnel on-site must be trained for rescue from these facilities. This course provides the information and practical exercises needed for safe entry operations.
- **24-HOUR CONFINED SPACE RESCUE (NFPA LEVEL 1):** For personnel who perform entry rescue services to relatively uncomplicated permit spaces, this program meets minimum requirements of OSHA 1910.146 (k) and NFPA 1670/1106. The training considers the facility's unique confined space hazards and complexities, response plans, and the rescue team building process among varied experience levels.
- **40-HOUR CONFINED SPACE RESCUE (NFPA LEVEL 2):** This program is an advanced course for the confined space rescue technician. Program content is designed to meet the requirements of NFPA 1006 for Confined Space Rescue Technician and NFPA 1006 Technical Rescuer Level II standards. Students gain the knowledge, skill and ability to pre-plan confined spaces for rescue, manage rescue operations, control hazards, learn advanced skill in confined space rescue communications and participate in various scenarios for team building skills.

■ HAZWOPER/HAZARDOUS WASTE MANAGEMENT

- **40-HOUR HAZWOPER, HAZARDOUS WASTE SITE WORKER:** Learn about hazard recognition, personal protective equipment and monitoring, as well as rights and responsibilities under the Occupational Safety and Health Administration. Above all, learn how to work safely around hazardous materials and wastes. This course meets the training requirements of the Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) regulation, 29 CFR 1910.120(e)(3)(i).
- **8-HOUR SITE WORKER REFRESHER (HAZWOPER):** Under the HAZWOPER regulation 29 CFR 1910.120, workers who complete the 40-Hour Site Worker course must receive eight hours of refresher training every year. This course fulfills that requirement. Participants will review hazard analysis and recognition and be updated on new regulations.
- **24-HOUR OPERATIONS LEVEL EMERGENCY RESPONSE:** Under 29 CFR 1910.120(q)(6)(ii), workers must be trained to the operations level before they are authorized to help control the spread of hazardous waste spills. In this course, students refine their ability to recognize hazards and improve their decontamination, monitoring, and safe work practices, as well as participate in full dress-out using personal protective equipment. Students must complete the medical evaluation and bring it to class.

- **24-HOUR EMERGENCY RESPONSE TECHNICIAN:** If you are required to physically approach and plug, patch, or otherwise stop the flow of a hazardous substance, according to 29 CFR 1910.120 (q)(6)(iii), you must be trained to the level of technician. In this hands-on course, you learn to manage a hypothetical emergency, implement a response plan, identify and classify spilled materials, use personal protective equipment and decontaminate the site.
- **8-HOUR EMERGENCY RESPONSE REFRESHER (HAZWOPER):** This is the annual refresher training required for emergency response workers trained under 29 CFR 1910.120(q) (6). The course focuses on changes in the regulations, new technology, hazard recognition and hazardous materials response procedures.
- **16-HOUR INDUSTRIAL INCIDENT MANAGEMENT SYSTEM:** This course covers the basics of an incident command system, including how to design a system, standard operating procedures, hazard and risk evaluation, site management and control, media relations, and how a system will work with local, state and federal incident management plans.
- **16-HOUR DOT:** This course covers and tests all the subjects needed to fulfill the U.S. Department of Transportation (DOT) requirement 49 CFR 172.704(d)(5). Under DOT regulations, employees who impact the shipping and receiving of hazardous materials must be trained and tested, then certified by their employer. This includes workers who prepare or sign hazardous materials/waste manifests, workers who prepare hazardous materials for shipment off-site and hazardous waste generators.
- **8-HOUR DOT REFRESHER:** After completing initial Hazardous Waste Operations and Emergency Response Standard training, under 49 CFR 172.700, refresher training is required every three years. In this course, you will review material classifications, hazard communication and requirements for loading and unloading, as well as any changes to DOT regulations.
- **CLANDESTINE METHAMPHETAMINE LAB DECON CONTRACTOR CLASS (24 HOURS):** Participants who successfully complete the training and state of Tennessee pre-requisites meet the training requirements to become a Clandestine Methamphetamine Lab (CML) Decontamination Contractor and certified CML Hygienist. Topics include obtaining a Certificate of Cleanliness, sampling requirements, decontamination requirements, manufacturing methods and toxicology.

■ HEALTHCARE EMERGENCY PREPAREDNESS

- **8-HOUR HEALTHCARE FACILITY EVACUATION:** Intended to provide participants with enhanced awareness of the planning, operational and logistical requirements involved with internal, partial, or total facility evacuations in a hospital setting. The program will stress the need for developing plans that are routinely tested, and assuring these plans are integrated into community-wide and regional plans. Versions of this class include: Hospital, Nursing Care Facility, and Emergency Response Organization.
- **HOSPITAL DECONTAMINATION COURSE:** This class fulfills the OSHA recommendations for training of First Receivers, as defined in OSHA Best Practices for Hospital-Based First Receivers of Victims from Mass Casualty Incidents Involving Release of Hazardous Substances (January 2005). The class is divided into four modules: HAZCOM awareness, decontamination practices, and practical exercises in decontamination procedures and use of PPE.
- **TERRORISM CONCEPTS:** Designed to help students recognize the presence of terrorist activity, detect the presence of terror weapons, and recognize medical signs/symptoms of victims of such attacks. This course includes an overview of terrorism in the historical and modern context, explosive weapons, chemical agents, biological agents, and nuclear/radiological dispersion agents.

- **HOSPITAL METHAMPHETAMINE RESPONSE CLASS:** This program is designed to increase or enhance healthcare provider awareness to hazards and issues associated with care of individuals exposed to meth, meth precursors or by-products of illegal meth production. The program provides an overview of the meth problem in the United States and Tennessee, and medical consequences of illicit meth use. Participants will learn about common meth productions and the chemical hazards associated with them. The program also covers chemical hazard analysis, and procedures for decontamination of individuals and healthcare facilities impacted by illegal meth production.
- **HOSPITAL INCIDENT COMMAND SYSTEM (HICS):** Designed for hospital staff that may function in key management roles during emergencies. Combines lecture, case studies, and a facilitated tabletop exercise to educate and inform personnel about the value and need of HICS to better manage the incident, personnel and resources during a crisis or disaster.
- **NURSING FACILITY INCIDENT COMMAND:** Every significant incident or event requires certain management functions to be performed. This program will present the critical components of the Nursing Home Incident Command System (NHICS).
- **CRISIS COMMUNICATIONS FOR HEALTHCARE ORGANIZATIONS:** Healthcare organizations must have individuals capable of performing as the “face” of their facility during periods of facility specific or community crisis situations. This program discusses the differences between “normal” and “crisis” communications, components of effective crisis communications plans, and media interaction considerations (including interview how to’s, pitfalls, and traps). Participants will also learn the basics of developing message maps to facilitate “pre-scripting” of initial communications releases for high-probability or high impact events
- **RADIATION FUNDAMENTALS COURSE:** Participants will perform mock facility preparation, utilization of PPE and radiation monitoring equipment, as well as patient decontamination procedures.

WHAT PEOPLE ARE SAYING ABOUT OUR TRAINING COURSES



Excellent training ... recommend to anyone I know.

Well worth the time and hard work.

Instructor took time to explain well.

Excellent class ... answered questions at a level all could understand.

Instructor adjusted class to assist with participants' needs.

Friendly environment; comfortable setting; easy to speak to instructor.

The information was very helpful and the instructor was very good.

There were opportunities for the students to interact and tell applicable stories.

It was a fantastic class and I gained invaluable knowledge.

Fast paced and kept interest high. Thorough. Stayed on subject. Good investment return.



■ OSHA – COMPLIANCE

- **8-HOUR EXCAVATION COMPETENT PERSON/TRENCH SAFETY (OTI 7410):** This course covers the responsibilities of the excavation “competent person” as spelled out in OSHA 29 CFR 1926.650. Students learn the OSHA accepted soils classification methods, types of testing required, how to select protective systems, and the elements of an excavation safety program.
- **COMMUNICATING DURING EMERGENCY:** This workshop will review aspects needed for effective and positive communications during a stressful event. It will cover stakeholder perspectives along with employee, community and media concerns.

- **OSHA 10-HOUR GENERAL INDUSTRY:** This course is particularly useful for those who are just entering the safety field and want a better understanding of what is required and where to start. Course subjects include an introduction to OSHA, OSHA/General Duty Clause, inspections, citations, and penalties, walking and working surfaces, means of egress and fire protection and electrical safety. Students who complete this will receive an OSHA 10-Hour General Industry card.

- **OSHA 30-HOUR GENERAL INDUSTRY:** This course covers more subjects and goes into more detail than the OSHA 10-Hour. Good for safety managers and maintenance personnel as well as safety committees, etc. Course subjects include intro to OSHA, electrical, safety and health management programs, machine guarding, permit-required confined spaces and lockout/tagout. Students who complete the course will receive an OSHA 30-Hour card. **PLEASE NOTE: This course is NOT the pre-requisite for the OTI 501 Trainer class. The pre-requisite for the OTI 501 Trainer class is the OTI Standards class. We offer OTI 511.**

- **RECORDKEEPING – 300 LOG (4 HOURS):** See OTI 7845 300 Log – Recordkeeping.

- **OSHA WRITTEN PROGRAMS AND TRAINING – THE REQUIREMENTS:** More than 50 OSHA standards require written programs. This course provides an overview of these OSHA standards by covering written program basics and identifying example plans. It identifies who must be trained and identifies example training programs that can be accessed.

- **CONSTRUCTION WORKSHOP SAFETY OUTREACH 10-HOUR OSHA CLASS:** This course is designed to provide workers with training on construction safety and health. It is an excellent tool for the workforce, front line supervision and anyone else who needs to understand and comply with OSHA standards and regulations. Emphasis is on identifying common hazards of the construction industry and avoidance, control and prevention of hazards techniques.

- **ERGONOMIC BASICS FOR MANUFACTURING:** This one-day seminar is designed to help companies determine if they have ergonomic hazards in their facilities and what can be done to address these hazards. Attendees will learn how to identify musculoskeletal disorder risk factors in the workplace and possible solutions to common problems.

- **INDUSTRIAL HYGIENE MADE EASY:** This four-hour workshop will cover major industrial hygiene regulatory issues, monitoring and measurement issues, instrumentation commonly used, hearing programs, and ventilation issues.

- **ACCIDENT INVESTIGATION BASICS:** This workshop covers practical application of an accident investigation process, which helps identify the causes of accidents and the corrective actions needed to avoid similar incidents. Investigation helps companies avoid potential litigation by clearly identifying how and why the accident happened. The course combines investigation process steps in detail, along with necessary OSHA reporting and record keeping requirements.

- **SAFETY COMMITTEE STRATEGIES:** The objective of this four-hour workshop is to examine successful safety committee strategies used by Tennessee companies. The workshop examines the issues such as roles of safety committees, energizing the committee and program, interaction of top management and supervisors with the committee, VPP and SHARP safety committee requirements.

- **BLOODBORNE PATHOGENS WORKSHOP AND HEALTHCARE UPDATE:** This workshop covers important issues of the bloodborne pathogens standard and explains what is required to comply. For example, the workplace must have an exposure control plan that details the procedures in place to protect employees from exposure. This workshop also provides information on what to do if employees are exposed to bloodborne pathogens.

- **CONDUCTING WORK HAZARD ASSESSMENT:** This workshop provides information and exercises to help participants identify hidden workplace hazards. CIS provides DVDs about the responsibilities of management. Participants are responsible for conducting a workplace hazard assessment and evaluating the effectiveness of the Personal Protective Equipment program.
- **SAFETY THROUGH TEAMWORK:** This course can be used for a safety committee or team to develop skills that help them identify hazards and determine effective corrective actions. Fast-paced and interactive, the practical, four-hour course includes a safety audit and teaches attendees to: develop good communication skills, use incident investigation techniques for root cause assessment and determine f effective corrective / preventive actions.
- **OSHA DISASTER SITE WORKER:** Increases participants' awareness of safety and health hazards, including CBRNE agents, which may be encountered at a natural or human-made disaster site. The importance of respiratory and other personal protective equipment and proper decontamination procedures that may be used to mitigate the hazards will be emphasized. Participants will support the use of an Incident Command System through the safe performance of their job responsibilities.
- **MEDICAL WASTE WORKER:** This program fulfills OSHA HAZWOPER training requirements for operations-level personnel. The course is designed to serve individuals who collect biological or/and pharmaceutical waste in healthcare, research or other facilities. Class content covers requirements of the HAZWOPER standard, chemical hazard recognition exercises, interpretation of chemical hazard information resources, use of work-related PPE, waste/product collection procedures, and mitigation/response practices for incidental spills.
- **FIRST AID, CPR, AND AED WORKSHOP:** Participants will learn the appropriate action to take in an emergency until professional help arrives. Meets OSHA standards for first aid in the workplace.
- **PERSON QUALIFIED RIGGER/SIGNAL TRAINING CLASS:** Upon completion of this class the basic qualified rigger will be able to: inspect rigging, use various types of rigging equipment and basic hitches, recognize associated hazards, and signal operations, identify and describe the use of slings and common rigging hardware, basic inspection techniques and rejection criteria used for slings and hardware, demonstrate proper use of American National Standards Institute (ANSI) hand signals. Describe basic hitch configurations, proper connections, and basic load-handling safety practices. Upon successful completion of this class, students will be qualified in basic rigging and signaling as to meet updated OSHA crane standards.
- **COMBUSTIBLE DUST:** Facilitated, interactive session allowing participants to recognize combustible dust hazards, to identify controls, and to become familiar with OSHA and consensus standards.
- **FALL PROTECTION, SCAFFOLD AND LADDER SAFETY:** Awareness of ladder safety, scaffold safety, basic fall protection and equipment inspected are presented in this course applicable to new hires, those moving into an industry where they are working at heights, or personnel who may provide safety oversight.
- **INVESTIGATION ACCIDENT BASICS:** Half day workshop that covers the practical applications of an accident investigation process. We look at how to identify causes of accidents and how to develop effective corrective actions. Effective accident investigations help companies avoid costs associated with lost-time, workers comp, and even litigation. Also covers OSHA recordkeeping basics as well.

■ OSHA TRAINING INSTITUTE (OTI) IN PARTNERSHP WITH SOUTHEASTERN OSHA TRAINING INSTITUTE

- **OTI 500 TRAINER COURSE IN OSHA STANDARDS FOR CONSTRUCTION:** This course is for people interested in teaching the 10- and 30-hour construction safety and health outreach program to their employees and other interested groups. Special emphasis is placed on those topics required in the 10- and 30-hour programs as well as on those that are the most hazardous, using OSHA standards as a guide.

- **OTI 501 TRAINER COURSE IN OSHA STANDARDS FOR GENERAL INDUSTRY:** This course is for people interested in teaching the 10- and 30-hour general industry safety and health outreach program to their employees and other interested groups. Special emphasis is placed on those topics required in the 10- and 30-hour programs as well as on those that are the most hazardous, using OSHA standards as a guide. Pre-requisites: Course #511 or equivalent, and five years of general industry safety experience.
- **OTI 502 UPDATE FOR CONSTRUCTION INDUSTRY OUTREACH TRAINERS:** This course is for people who have completed #500 Trainer Course in Occupational Safety and Health Standards for the Construction Industry, and are active trainers in the outreach program. It provides an update on such topics as OSHA construction standards, policies and regulations.
- **OTI 503 UPDATE FOR GENERAL INDUSTRY OUTREACH TRAINERS:** This course is for people who have completed course #501 Trainer Course in Occupational Safety and Health Standards for General Industry, and are active trainers in the outreach program. It provides an update on OSHA general industry standards and OSHA policies.
- **OTI 510 OCCUPATIONAL SAFETY AND HEALTH STANDARDS FOR CONSTRUCTION:** This course covers OSHA policies, procedures, and standards, as well as construction safety and health principles. Topics include scope and application of the OSHA construction standards. Special emphasis is placed on those areas that are the most hazardous, using OSHA standards as a guide.
- **OTI 511 OCCUPATIONAL SAFETY AND HEALTH STANDARDS FOR GENERAL INDUSTRY:** This course covers OSHA policies, procedures, and standards, as well as general industry safety and health principles. Topics include scope and application of the OSHA general industry standards. Special emphasis is placed on those areas that are the most hazardous, using OSHA standards as a guide.
- **OTI 7845 300 LOG – RECORDKEEPING (4 HOURS):** Learn how to complete the OSHA 300 annual summary log and use it to target injury and illnesses. The workshop covers recording criteria on hearing conservation and musculoskeletal disorders. The workshop also covers day counts, annual summary, employee involvement, privacy protection, and information reporting to the government.

■ TECHNICAL RESCUE PROGRAMS

- **VEHICLE RESCUE/NFPA LEVEL 1:** Expands upon the principles and theory learned in vehicle rescue awareness to include safety considerations, hazard control and the team process. Highlights vehicle technology and its impact upon rescue activities as well as safety concerns.
- **VEHICLE RESCUE/NFPA LEVEL 2:** Expands upon the lessons learned and skills developed in the Vehicle Rescue Operations program, and takes them in a multitude of directions. The focus of the program is situational problem solving and the development of the team concept.
- **ROPE RESCUE 1/NFPA LEVEL 1:** Teaches personnel how to safely conduct basic rope rescue operations. Focuses on various knots, rescue hardware, auxiliary equipment, personal protection equipment, rope care and maintenance and standards governing basic rope rescue operations.
- **ROPE RESCUE 2/NFPA LEVEL 2:** Upon the successful completion of this course, emergency responders will have the skills and knowledge required for certification to Chapter 6.2. "Rope Rescue Level II," as described in the National Fire Protection Association (NFPA) 1006, Standard for Technical Rescuer Professional Qualifications (2008 edition), includes the areas of multipoint anchors, compound Mechanical Advantages (MA), highline systems, and pick-off systems.

- **TRENCH RESCUE, NFPA LEVEL 1/LEVEL 2:** Meets certification requirements for Trench Rescue operations (Level 1) or Technician (Level 2) based on NFPA 1670, 1999; NFPA 1006, 2002. Covers soil mechanics and analysis, trench assessment practices, trench protective systems, excavation safety practices, trench/evacuation dynamics, basic collapse victim care, and incident management.
- **CONFINED SPACE OPERATIONS/RESCUE, NFPA LEVEL 1/LEVEL 2:** Participants will have the ability to evaluate, manage and perform a confined space rescue in accordance with NFPA 1670 and NFPA 1006.
- **40-HOUR LIGHT FRAME/UN-REINFORCED MASONRY COLLAPSE RESCUE. SCR-I:** Provides participants with skills and cognitive sets to safely initiate and undertake rescue/recovery operations at structural collapse incidents.
- **40-HOUR CONCRETE BUILDING COLLAPSE TRAINING CLASS, SCR-II:** The SCR-II program is a continuation class from SCR I. The SCR-II program provides students with practical and cognitive skill sets to safely undertake rescue/recovery operations in concrete/heavy wall structures.

WHAT PEOPLE ARE SAYING ABOUT OUR TRAINING COURSES



Great training/learning experience for me.

I truly enjoyed class – never boring – instructor kept my attention.

Small group enhanced the experience and instructor was very good.

*I gained more respect for the role of OSHA personnel
and obtained valuable information related to general industry.*

Instructor gets it ... plain and simple. Great wisdom.

*As with all of the CIS courses that I have attended, the course
was informative and allowed interaction at a reasonable cost.*

Greatly aided my understanding of what constitutes a good class.

Great program and worthwhile ... ability to learn from peers.

Very useful ... good suggestions for recognizing hazards.

*Very essential to my position, informative, great resource ...
will recommend for other employees.*

*Very informative. Instructor was outstanding, knowledgeable
and well-prepared.*

*Excellent information about how to fill out the OSHA log
... step-by-step instructions.*



CLIENT SITE TRAINING AND CONSULTING SERVICES

Safety Hazard Assessments
(Audits)

OSHA-Compliant
Written/Training Program
Development

On-Site Emergency Response/
Hazardous Materials Team
Development

Assistance with and Interpre-
tations of Health and Safety
Regulations

OSHA Training Institute
Courses

OSHA 18001 Assistance –
HAZWOPER, RCRA,
First Aid, CPR

Hospital Emergency
Preparedness

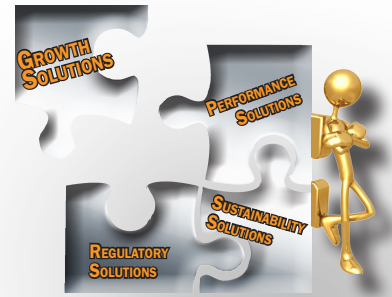
Trenching Safety,
Excavation Competent
Person Training

Confined Space
Operations/Rescue

Technical Rescue Training

GROWTH SOLUTIONS

■ ECONOMIC DEVELOPMENT



CERTIFICATE PROGRAM

THE TENNESSEE CERTIFIED ECONOMIC DEVELOPER (TCED) PROGRAM is a comprehensive professional development program tailored to give participants a broad-based knowledge of economic opportunities and trends, core components, and tools required to compete in today's global economy, with a focus on economic development in Tennessee. Upon completion of the 91-hour TCED course curricula and certification requirements, participants are awarded the Tennessee Certified Economic Developer certification, indicating that they have developed core competency in the principles and practices of economic development in Tennessee. The TCED certificate curriculum includes the Tennessee Basic Economic Development Course, six specific subject matter courses listed below, along with an elective and a capstone project. Courses may be completed as part of the certificate program or independently.



- **TENNESSEE BASIC ECONOMIC DEVELOPMENT COURSE:** The Tennessee Basic Economic Development Course (TBEDC), an International Economic Development Council (IEDC) certified course, focuses on the fundamental concepts, strategies and tools of economic development. This four-day course provides a basic overview of economic development strategic planning, managing economic development organizations, financing economic development, workforce development, business retention and expansion, entrepreneurship and small business development, marketing and attraction, community development and more.
- **TENNESSEE BUSINESS RETENTION AND EXPANSION COURSE:** The Tennessee Business Retention and Expansion Course is a one and a half day course that focuses on how to develop, implement and evaluate an effective Retention and Expansion program. Course topics include how to promote existing businesses, how to address sudden and unexpected losses of major employers, and the importance of retooling both the workplace and workforce.
- **TENNESSEE ENTREPRENEURSHIP AND SMALL BUSINESS DEVELOPMENT COURSE:** The Tennessee Entrepreneurship and Small Business Development Course is a one-and-a-half-day course that focuses on the impact of small businesses on local and regional economies, needs of entrepreneurs and small businesses and available resources to assist them, and effective networks and strategies to support entrepreneurship and small business development.
- **TENNESSEE FINANCE AND REAL ESTATE COURSE:** The Tennessee Finance and Real Estate Course is a one-and-a-half-day course that examines important concepts and techniques related to land development, particularly the development of land for economic development purposes. Topics include developing industrial sites, land use planning, financing tools such as tax increment financing and payments in-lieu of taxes (PILOTs), and incentives and resources to support real estate development.

WHAT PEOPLE ARE SAYING ABOUT OUR TRAINING COURSES

“ This past week was a very entertaining, informative, interesting and enjoyable few days. No question that I made some very good contacts and gained a wealth of knowledge and information that will be beneficial as I work to improve the quality of life for all Decatur County residents. ”

- **TENNESSEE MANAGING ECONOMIC DEVELOPMENT ORGANIZATIONS COURSE:** The Tennessee Managing Economic Development Organizations Course is a one-and-a-half- day course that focuses on building an effective economic development organization at state and regional levels. Topics include examining organizational models, measuring performance, management approaches, roles of key leaders, politics and the economic developer, and technology's role in the EDO.
- **TENNESSEE MARKETING AND ATTRACTION COURSE:** The Tennessee Marketing and Attraction Course is a one-and-a-half-day course that examines the process of strategic comprehensive marketing in economic development. It includes an examination of market research techniques and analysis, technology's role in marketing; site selection decision making processes, advertising and promotion techniques, and prospect hosting in economic development. While this course emphasizes business attraction, new business development, existing business, and community development are included as part of a comprehensive approach.
- **TENNESSEE STRATEGIC PLANNING FOR ECONOMIC DEVELOPMENT COURSE:** The Tennessee Strategic Planning for Economic Development Course is a one-and-a-half-day course that covers the steps to successfully implement a strategic planning process for your organization, your geographic area, or project. Course topics include consensus building, understanding and applying economic data, developing mission, vision, and goals, and measuring progress.

■ INNOVATION AND TECHNOLOGY ACCELERATION SERVICES

- **INNOVATION ENGINEERING MANAGEMENT SYSTEM (IEMS):** This service will help your company accelerate innovation and reduce risk associated with product development and organizational improvement. IEMS expedites the creation, communication and commercialization of new ideas. CIS will provide the assistance needed to establish an IEMS that will turn ideas into profits.
- **MANUFACTURING RESEARCH AND DEVELOPMENT ASSISTANCE (MRDA):** This service helps companies solve complex engineering problems and utilize technology to improve productivity and profitability. CIS connects manufacturers with some of the most sophisticated engineering research and development resources in the country, including the UT College of Engineering, Oak Ridge National Laboratory, UT Space Institute, and Y-12 National Security Complex.
- **SMALL BUSINESS INNOVATION RESEARCH (SBIR) AND SMALL BUSINESS TECHNOLOGY TRANSFER (STTR):** SBIR/STTR programs award more than \$2.5 billion to small businesses with innovative ideas throughout the country. To share in the awards, companies must communicate their ideas effectively to the targeted federal agency. CIS workshops and services provide information on how to prepare a competitive proposal.
- **LEAN PRODUCT DEVELOPMENT:** Lean Product Development offers tools and methods to improve time to market and reduce the risk inherent in new product introduction. It also provides ways to reduce the waste in, and improve the results of, product development efforts.

■ PROCUREMENT TECHNICAL ASSISTANCE CENTER (PTAC)

- **PTA 101: BASICS OF GOVERNMENT CONTRACTING:** Hear overviews from our partners at the U.S. Small Business Administration and the Tennessee Small Business Development Centers. All attendees receive resource material with the information necessary to become a successful government contractor.
- **PTA 102 BASICS OF TENNESSEE STATE GOVERNMENT CONTRACTING:** Learn how to do business with the state of Tennessee. Also learn how to register with the state, determine your commodity codes and obtain bid information.

- **PTA 401: FEDERAL ACQUISITION REGULATIONS AND GOVERNMENT CONTRACTING:** Participants will learn the basics on How to Understand the FAR, and be able to locate the relevant FAR regulations in a proposal, locate the FAR regulations on the Internet, and recognize the pitfalls associated with Government contracting and to be able to avoid them.
- **PTA 501: PREPARING A RESPONSE TO A REQUEST FOR PROPOSAL:** Participants will be able to identify the steps in the request for proposal procurement process, be able to identify the components needed in the response to a request for proposal and learn the most common reasons for rejection of a proposal.



Customized online courses can be developed to meet your specific needs.



Center for Industrial Services
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