SAFE WORKPLACE IMPROVES YOUR BOTTOM LINE

Protect your workers, decrease downtime and maximize your competitive edge.

Action Items
- Commit resources
- Involve employees
- Assess job hazards
- Identify controls
- Provide PPE
- Train employees
- Reduce workplace injuries and illnesses

NC State University
ies.ncsu.edu/otieducationcenter

The University of Tennessee
cis.tennessee.edu
Welcome to the Southeastern OSHA Training Institute Education Center!

Since our launch in 2008, NC State University and The University of Tennessee have partnered to provide high quality safety education to employers and employees throughout OSHA Region IV. We serve both the private and public sectors with the ultimate goal of reducing injuries and illnesses in the workplace. We are impressed with the commitment of our students to implement safe work practices and ensure OSHA compliance in their organizations.

Thank you for considering our programs. We look forward to your participation in our classes!

Wendy Laing, CSP, MIE
Director, Southeastern OSHA Training Institute Education Center
NC State University, Industry Expansion Solutions (Lead Organization)

Instructional Team

Charles J. Gluck is a Safety Consultant for The University of Tennessee, providing HAZWOPER, DOT and First Aid training. He is a retired Battalion Chief from the San Jose Fire Department and spent 37 years in the Fire Service. Charles owned a consulting business in California for 20 years, providing Fire Life Safety instruction and consulting. He is also trained in High Angle Rescue and Confined Space, Trench operations and is an Authorized OSHA Outreach Trainer.

Walter D. Idol, MS, NREMTP, is the Health, Safety and Preparedness Program Manager for the Center for Industrial Services within The University of Tennessee. He is a nationally registered paramedic with more than 30 years of experience in emergency operations, fire, EMS, HazMat and technical rescue. Walter has a B.S. in Forestry, an M.S. in Adult and Technological Education and is an Authorized OSHA Outreach Trainer.

Matt Kerr is a contract instructor for the Southeastern OTI Education Center and has more than 20 years of experience in occupational safety and health, 10 years in Fire/Rescue/HazMat, 10 years of hazardous waste management and 20 years in volunteer search and rescue. He is a Certified Environmental, Health, and Safety Trainer (CET) and is an Authorized OSHA Outreach Trainer. Matt has a B.A. in Environmental Studies.

Bryan Lane is the Coordinator of the Southeastern OSHA Training Institute Education Center program within The University of Tennessee and is a consultant for the university’s Center for Industrial Services. He helped establish its successful occupational safety and health program and conducts training in a number of safety-related and continuous improvement initiatives. Bryan has a B.S. degree in Management and is an Authorized OSHA Outreach Trainer.

Quinton D. Lewis is a Safety and Health Specialist with NC State Industry Expansion Solutions and assists North Carolina industries in OSHA compliance, safety and health program development and training. Quinton provided safety and health compliance assistance as an independent consultant, and is a former Assistant Fire Marshall and Inspector for a large North Carolina municipality. Quinton is an Authorized OSHA Outreach Trainer and serves as an active member of the United States Air Force Reserve. He has an M.S. in Occupational Safety and Health.

Paul P. McCain, PE, is a contract instructor for the Southeastern OTI Education Center and offers a wide range of continuing education and consulting services related to engineering, safety, construction management and law. Paul has 30 years of experience in construction management and safety, and instructed for more than a decade as a full-time faculty member for NC State University with the Department of Civil, Construction and Environmental Engineering. He is an Authorized OSHA Outreach Trainer.

W. Tim McGlothlin, MS, CPE, is the Executive Director of The Ergonomics Center of North Carolina at NC State University. With more than 20 years of experience in ergonomics and human factors, Tim manages all aspects of the center while performing field studies and workplace assessments.

Tamara Nagelberg
Registration Program Coordinator
Michael “Mac” McNulty is a Safety and Health Specialist with NC State Industry Expansion Solutions and teaches numerous OSHA courses including Industrial Hygiene, Combustible Dust and Confined Space Entry. He provides hazardous waste operations, emergency response (HAZWOPER) and incident spill response education, training, exercise evaluations and program development to North Carolina businesses and local, state and federal agencies. Mac has more than 25 years of experience in chemistry, safety and health and remediation/emergency response. Mac has a B.S. in Hazardous Materials Management and is an Authorized OSHA Outreach Trainer.

Steven J. Owen is a contract instructor for the Southeastern OTI Education Center and has been active in the electrical industry for more than 34 years. Steven is certified as an electrical inspector, lighting protection designer, inspector and journeyman installer, power distribution engineering technician, chief electrical code analyst and master electrician. He is certified as a national electrical code instructor and sponsor in 38 states and numerous cities.

Wendy Padgett, MPPA, MSSEM, is a contract instructor for the Southeastern OTI Education Center and has more than 15 years of experience in Occupational Safety and Health. She has designed, developed, implemented, and maintained numerous safety training programs and policies in the private and public sectors. She conducts facility safety inspections, records compliance inspections and work zone inspections. Wendy is an Authorized OSHA Outreach Trainer.

Charlie Parrish, PE, is an Environmental Engineering Specialist with NC State Industry Expansion Solutions. He conducts technical assistance and training programs on ISO environmental and safety management system standards, air quality permitting and environmental compliance. In addition, Charlie instructs classes in DOT HazMat Transportation and Hazardous Waste Management.

Wendy Shepherd is a Safety and Health Specialist with NC State Industry Expansion Solutions assisting North Carolina industries in OSHA compliance, safety and health program development and training. Wendy has over 19 years of experience, including regulatory compliance experience with the NC Department of Labor and global risk consulting, analyzing workers compensation trends, incident investigation and industrial hygiene sampling. Wendy has a B.S. in Environmental Health with a concentration in both Public Health and Industrial Hygiene and is an Authorized OSHA Outreach Trainer.

Holli Singleton is the Assistant Director of Safety & Health Services at NC State Industry Expansion Solutions. She develops and presents safety and environmental continuing education courses, conducts work site assessments and is an authorized OSHA Outreach Trainer. Holli has a strong EHS training background with 20 years of experience in workplace safety and health. She has a B.S. in Health Education from UNC-Greensboro and has earned her MESH (Manager of Environmental Safety and Health) Certificate through NC State University.

Training Facilities

Industry Expansion Solutions (IES) is the engineering-based, solutions-driven, client-focused unit of NC State University. Our broad portfolio of solutions and deep industry expertise help organizations grow, innovate and prosper. Our extensive partnerships with business, industry, education and government generate a unique culture of collaboration that provides access to cutting-edge expertise, research, and technology.

The Center for Industrial Services (CIS) is an agency of the Institute for Public Service of The University of Tennessee, the state’s land grant college. The Center is part of the University’s statewide system of higher education and provides services and resources to industries and businesses throughout the state to improve their economic competitiveness. CIS houses the state’s Manufacturing Extension Partnership Program, the University Economic Development Center, and the Procurement Technical Assistance Center with a mission to deliver solutions that help businesses succeed, grow and create high quality jobs.

Host Sites

The Southeastern OTI Education Center also maintains relationships with the following training organizations in order to provide additional course offerings in OSHA Region IV:

- Carolinas AGC Foundation
- Safety and Health Council of North Carolina
- South Carolina National Safety Council

All OSHA courses hosted by these organizations are administered and instructed by the Southeastern OTI Education Center.

OSHA Outreach Training Program

The Southeastern OSHA Training Institute Education Center offers qualified individuals the opportunity to become Authorized OSHA Outreach Trainers who deliver 10-hour and 30-hour outreach classes to workers in construction, general industry and disaster sites. These outreach classes teach workers and employers about OSHA, workers’ rights and how to identify, avoid and prevent workplace hazards.

Details on how to become an Authorized OSHA Outreach Trainer are found on page 5. For more information, contact us at SoutheasternOTI@ncsu.edu.

Darija Franjic
Outreach Training Program Coordinator
Courses in OSHA Standards

Benefits of OSHA #510 & #511 Standards Courses

• Comprehensive foundation of OSHA’s safety requirements for construction and general industry
• Meets one of two prerequisites to become an Authorized OSHA Outreach Trainer (p 5)
• Meets core course requirement for the MESH Certificate Program (p 14)
• Meets one of three required courses for OSHA’s Public Sector Safety & Health Fundamentals Certificate Program (p 15)

OSHA #510 Occupational Safety and Health Standards for the Construction Industry
4 days | MESH hours: 30

This course covers OSHA policies, procedures and standards, as well as construction industry safety and health principles. A copy of the 29 CFR 1926 Construction Industry Standards is included with the registration fee. Participants must successfully pass a written exam at the end of the course.

This course meets one of two prerequisites for the OSHA #500 Trainer Course for the Construction Industry (see Page 5). Please note, the 30-hour Construction Industry OSHA outreach class is not considered equivalent to OSHA #510.

Participants will:
• Describe specific requirements in the OSHA 29 CFR 1926 standards that protect workers from common hazards associated with construction industry workplaces

OSHA #511 Occupational Safety and Health Standards for General Industry
4 days | MESH hours: 30

This course covers OSHA policies, procedures and standards, as well as general industry safety and health principles. A copy of the 29 CFR 1910 General Industry Standards is included with the registration fee. Participants must successfully pass a written exam at the end of the course.

This course meets one of two prerequisites for the OSHA #501 Trainer Course for General Industry (see Page 5). Please note, the 30-hour General Industry OSHA outreach class is not considered equivalent to OSHA #511.

Participants will:
• Describe requirements in the OSHA 29 CFR 1910 standards that protect workers from common hazards in general industry workplaces

OSHA #5810 Hazards Recognition and Standards for On-Shore Oil and Gas Exploration and Production
4 days | MESH hours: 30

This course covers OSHA Construction and General Industry Standards relating to the oil and gas industry. It provides information for employees and employers to protect themselves by developing the knowledge and skills to anticipate, recognize, evaluate and control hazards common to the on-shore oil and gas exploration and production industry. This includes work sites associated with the on-shore exploration and production of oil and gas including, but not limited to, construction, drilling, completion, well servicing, production, product gathering and processing, and product transmission. This course is intended for employees and employers engaged in all phases of on-shore oil and gas exploration and production.

Participants will:
• Identify hazards associated with the oil and gas industry
• Apply OSHA standards, policies, and procedures to the gas and oil industry
• Identify methods to control and abate hazards

Please note: There is no OSHA Outreach Trainer program for the oil and gas industry.

“I am so thankful to be a part of the Southeastern OTI Education Center extended family. Having studied both general industry and construction, I find their impeccable classes, newsletters, website, and staff are a consistent and effective resource for myself and my company.”

- Katrina Harman Roper, Private Consultant
Spartanburg, SC

Holli Singleton
Assistant Director, Safety & Health Services
NC State Industry Expansion Solutions
OSHA Outreach Trainer Courses

OSHA #500 Trainer Course in OSH Standards for Construction
4 days | MESH hours: 30
Successful completion of this course results in participants becoming Authorized OSHA Outreach Trainers to conduct both 10-hour and 30-hour construction industry classes that provide hazard awareness training to workers and employers.

During the course, students will develop a presentation and teach an assigned OSHA Construction Industry Outreach topic, and successfully pass a written exam. Participants will be provided with a variety of training materials and resources.

Prerequisites:
- OSHA #510 Occupational Safety and Health Standards for the Construction Industry
- Five (5) years of construction industry safety experience

OSHA #501 Trainer Course in OSH Standards for General Industry
4 days | MESH hours: 30
Successful completion of this course results in participants becoming Authorized OSHA Outreach Trainers to conduct both 10-hour and 30-hour general industry classes that provide hazard awareness training to workers and employers.

During the course, students will develop a presentation and teach an assigned OSHA General Industry Outreach topic, and successfully pass a written exam. Participants will be provided with a variety of training materials and resources.

Prerequisites:
- OSHA #511 Occupational Safety and Health Standards for General Industry
- Five (5) years of general industry safety experience

OSHA #502 Update for Construction Industry Outreach Trainers
3 days | MESH hours: 22
Currently Authorized OSHA Construction Industry Outreach Trainers are required to attend this course once every four years to maintain trainer status.

Prerequisites:
- Students must submit a copy of their current trainer card at the time of registration

OSHA #503 Update for General Industry Outreach Trainers
4 days | MESH hours: 30
Currently Authorized OSHA General Industry Outreach Trainers are required to attend this course once every four years to maintain trainer status.

Prerequisites:
- Students must submit a copy of their current trainer card at the time of registration

OSHA #500 Disaster Site Worker Trainer Course
4 days | MESH hours: 24
Successful completion of this course results in participants becoming trainers in the Disaster Site Worker Outreach Training program, to conduct the Disaster Site Worker Course, intended for second responders (those arriving hours or days after the event).

During the course, students will prepare a presentation on an assigned disaster site worker topic. Participants will be provided with a variety of training materials and resources.

Prerequisites:
- Completion of OSHA #500 Trainer Course in OSHA Standards for the Construction Industry or OSHA #501 Trainer Course in OSHA Standards for General Industry
- Three (3) years of safety training experience
- Completion of the 40-hour HAZWOPER course or equivalent

OSHA #502 Update for Disaster Site Worker Trainer Course
1 day | MESH hours: 7.5
Currently Authorized Disaster Site Worker Trainers are required to attend this course once every four years to maintain trainer status.

Prerequisites:
- Students must submit a copy of their current trainer card at the time of registration

“I had the privilege to attend an OSHA 500 course taught by Paul McCain. He offered suggestions and tips to better equip me for an OSHA 10-hour Construction class I successfully taught to supervisors and management the following week. I recommend this winning team to all wishing to receive their OSHA Outreach Trainer authorization.”

- Larry Dustin, EHS Specialist, Major Projects
  Duke Energy, Southport, NC

Paul McCain, PE
Construction & General Industry Instructor
Southeastern OTI Education Center
Safety and Health Technical Courses

OSHA #521 OSHA Guide to Industrial Hygiene
4 days | MESH hours: 30
This course addresses industrial hygiene practices and related OSHA regulations and procedures. Given the responsibility to provide a workplace that complies with OSHA’s Industrial Hygiene standards, the participant will be able to recognize potential health hazards in accordance with OSHA’s occupational health standards and guidelines. The course features workshops in health hazard recognition, OSHA health standards and a safety and health program workshop.

Participants will:
• Recognize basic industrial hygiene principles
• Identify methods to evaluate potential air contaminants
• Identify other health hazards such as noise, biological agents and musculoskeletal disorders
• Recognize methods to control health hazards

OSHA #2255 Principles of Ergonomics
4 days | MESH hours: 30
This course covers the use of ergonomic principles to recognize, evaluate and control workplace conditions that cause or contribute to musculoskeletal and nerve disorders. At the conclusion of this course, participants will be able to assess the work environment for the prevention of Work-Related Musculoskeletal Disorders (WMSD). This course emphasizes general industry case studies covering analysis and design of work stations and equipment, laboratory sessions in manual lifting and coverage of current OSHA compliance policies.

Participants will:
• Identify work-related musculoskeletal and nerve disorders and describe associated risk factors
• Apply basic principles of workstation design
• Describe lifting and NIOSH measurement techniques
• Recognize OSHA’s policy on ergonomics
• Describe the components of a successful ergonomics program

OSHA #2264 Permit-Required Confined Space Entry
4 days | MESH hours: 26
Many employers have confined spaces in their work environment that meet the definition of a permit space according to the OSHA Permit-Required Confined Space Entry Standard for General Industry 29 CFR 1910.146 and 29 CFR 1926 Subpart AA for the Construction Industry. This course is designed to enable participants to recognize, evaluate, prevent and abate safety and health hazards associated with permit-required confined space entry.

Participants will:
• Learn and apply the requirements of OSHA’s Permit-Required Confined Space Entry Standard for General Industry 29 CFR 1910.146 and 29 CFR 1926 Subpart AA for the Construction Industry
• Recognize, evaluate and control safety and health hazards associated with permit space entry
• Classify permit spaces and evaluate programs

“The OSHA training and resources provided by Bryan Lane have proven to be a valuable asset not only in my own career, but also as a benefit to my company’s safety program. Bryan’s underlying message about the importance of continuously striving to improve our safety program speaks volumes. I look forward to the next opportunity to grow through the Southeastern OTI Education Center.”

- Vince Murphy, Regional Supervisor and National Safety Coordinator
C.W.I., Nashville, TN

Bryan Lane
Program Coordinator and Instructor
The University of Tennessee Center for Industrial Services
OSHA #3015 Excavation, Trenching and Soil Mechanics
3 days | MESH hours: 20
This course focuses on the OSHA Excavation standard and on the safety and health aspects of excavation and trenching. Participants are introduced to practical soil mechanics and its relationship to the stability of shored and unshored slopes and walls of excavations. Various types of shoring (wood timbers and hydraulic) are covered. Testing methods are demonstrated and a field exercise is conducted. At the conclusion of the course, participants will be able to identify compliance with OSHA standards 29 CFR 1926.650 through 29 CFR 1926.652.

Participants will:
- Identify general excavation hazards
- Identify types of protective systems used at excavation sites
- Identify types of acceptable soil testing methods
- Identify sloping system design requirements
- Identify support and shield systems
- Apply principles of soil mechanics regarding factors affecting soil stability
- Assess compliance of trench protective systems

OSHA #3095 Electrical Standards
4 days | MESH hours: 30
This course is designed to provide participants with the ability to conduct an electrical safety inspection according to OSHA and consensus standards, in order to keep the workplace free of electrical hazards. During this four-day course, students receive a thorough overview of electrical installations and electrical testing equipment with emphasis on safety-related work practices, electrical hazard recognition, OSHA policies and procedures, and the National Electrical Code.

Participants will:
- Recognize the hazards of electricity
- Apply fundamentals of electricity
- Explain electrical equipment functionality
- Assess electrical safety-related work practice conditions
- Apply OSHA and consensus electrical standards
- Recognize elements of power generation, transmission and distribution

OSHA #3115 Fall Protection
3 days | MESH hours: 22
This course provides an overview of state-of-the-art technology for fall protection and current OSHA requirements. At the conclusion of the course, the participant will be able to identify fall protection requirements mandated by OSHA standards.

Participants will:
- Identify employer’s responsibility of providing fall protection and training requirements
- Identify conventional and nonconventional methods of fall protection
- Identify fall arrest requirements and assess compliance with subparts of 29 CFR 1926 relating to fall protection
- Evaluate components of Fall Protection Plans
- Assess compliance of residential construction fall protection and non-residential roof construction with OSHA and consensus standards

The Ergonomics Center of North Carolina is a membership-based organization housed in the Edward P. Fitts Department of Industrial and Systems Engineering at NC State University. The Center was created to make workplaces safer, more productive, and more competitive by providing practical, cost-effective ways to reduce or eliminate occupational injury and illness problem. For more information, visit www.theergonomicscenter.com.

Tim McGlothlin
Executive Director
The Ergonomics Center Of North Carolina
Safety and Health Technical Short Courses

OSHA #7000 OSHA Training Guidelines for Safe Patient Handling
1 day  |  MESH hours: 7.5
This course covers OSHA ergonomic guidelines for safe patient handling and methods to protect workers in all healthcare settings. Using OSHA’s Ergonomics Guidelines for Nursing Homes as a basis for any healthcare facility, this course focuses on analyzing and identifying ergonomic hazards and practical solutions to address these issues.

Participants will:
• Be able to apply “OSHA’s Ergonomics Guidelines for Nursing Homes” in their healthcare facility
• Identify, analyze and develop solutions for ergonomic risk factors in healthcare

OSHA #7005 Public Warehousing and Storage
1 days  |  MESH hours: 7.5
This course covers the hazards and injuries likely to occur in public warehousing and storage operations, including encounters with powered industrial trucks, material handling, lifting and ergonomics, hazard communication, walking and working surfaces, and life safety including fire protection and evacuation.

Participants will:
• Discover hazards in warehousing and storage operations
• Identify methods to control and abate these hazards

OSHA #7115 Lockout/Tagout [Controlling Hazardous Energy to Prevent Workplace Injury]
1 day  |  MESH hours: 7.5
This course covers the role and responsibility of the employer to develop and implement an energy control program, or lockout/tagout (LOTO) for the protection of workers while performing servicing and maintenance activities on machinery and equipment, using the OSHA Control of Hazardous Energy Standard.

Participants will:
• Specify the requirements for implementing energy control programs and procedures and conducting training and audits
• Discover methods of detecting hazardous conditions and implementing control measures

OSHA #7125 Seminar on Combustible Dust Hazards
1 day  |  MESH hours: 7.5
The focus of this one-day seminar is to provide businesses within general industry an opportunity to enhance their awareness of the hazards posed by combustible dust as well as developing the controls and strategies that can help them prevent or mitigate combustible dust fires and explosions.

Participants will:
• Recognize the hazards and risks associated with combustible dust
• Learn control methods and standards to help prevent or mitigate combustible dust fires and explosions
• Learn about OSHA’s National Emphasis Program for combustible dust hazards

OSHA #7200 Bloodborne Pathogens Exposure Control for Healthcare Facilities
1 day  |  MESH hours: 7.5
This course covers the development and implementation of Exposure Control Plans (ECP) for healthcare facilities utilizing the OSHA Bloodborne Pathogens Standard as a reference.

Participants will:
• Describe the general requirements of OSHA’s Bloodborne Pathogens Standard
• Develop a template for a written Exposure Control Plan

OSHA #7300 Understanding OSHA’s Permit-Required Confined Space Standard
1 day  |  MESH hours: 7.5
This course covers the requirements of the OSHA Permit-Required Confined Space Standard. Course topics include safety and health hazards associated with confined space entry, and the evaluation, prevention and abatement of these hazards. The course covers OSHA requirements. It does not feature workshops (instrumentation, control methods and testing) which are included in the OSHA #2264 Permit-Required Confined Space Entry.

Participants will:
• Identify confined space hazards and methods to evaluate and abate those hazards
• Formulate when a confined space shall be classified as a permit-required confined space
Safety and Health Technical Short Courses

OSHA #7400 Noise in the Construction Industry
1 day | MESH hours: 7.5
This course covers the evaluation and reduction of noise hazards in the construction industry. Course topics include OSHA Construction Noise Standards, properties of sound, noise-induced hearing loss, noise exposure control, selection and use of hearing protection, conducting sound level surveys and worker training. Classroom demonstrations of noise instrumentation and hearing protection devices are featured.

Participants will:
• Identify the properties of sound and its relationship to noise-induced hearing loss, hearing protection usage
• Recognize how to conduct sound level surveys
• Locate and discuss the training requirements for workers

OSHA #7410 Managing Excavation Hazards
1 day | MESH hours: 7.5
This course covers the roles and responsibilities of the employer to educate and assign a competent person to excavation sites. Course topics include understanding and applying definitions relating to the OSHA Excavation Standard, excavation hazards and control measures, soil analysis techniques, protective system requirements and emergency response.

Participants will:
• Recognize the duties of a competent person in excavation work
• Gain the knowledge and skills required to perform these duties

OSHA #7500 Introduction to Safety and Health Management
1 day | MESH hours: 7
This course features information on the elements and effective strategies for implementing a safety and health management system in the workplace utilizing relevant guidance standards. Interactive assignments and thought-provoking group projects enable participants to walk away with a strong understanding of how their organizations can start benefiting from implementing a safety and health management system for their company.

Participants will:
• Identify the four critical elements of a safety and health management system
• Identify the implementation strategies of a management system standard

OSHA #7505 Introduction to Incident [Accident] Investigation
1 day | MESH hours: 7.5
This course provides an introduction to basic accident investigation procedures and describes accident analysis techniques. The goal of this course is to help participants gain the basic skills necessary to conduct an effective incident/accident investigation at their workplace. The course is a facilitated, interactive training session focusing on class discussion, case studies and group activities.

Participants will:
• Recognize the benefits of an effective investigation for accidents and near misses in the workplace
• Identify the six-step accident investigation procedure
• Practice methods for accident investigation through case studies, group activities and discussion

OSHA #7845 OSHA Recordkeeping Rule Seminar
1 day | MESH hours: 6.5
This course is designed to assist employers in identifying and fulfilling their responsibilities for posting certain records, maintaining records of illnesses and injuries and reporting specific cases to OSHA.

Participants will:
• Identify OSHA recording and reporting requirements
• Complete OSHA’s Injury and Illness Recordkeeping forms 300, 300A and 301
Hazardous Materials and Emergency Planning

OSHA #2015 Hazardous Materials
4 days | MESH hours: 26
This course covers OSHA General Industry Standards and other consensus and proprietary standards that relate to the use of hazardous materials, focusing on Subpart H of 29 CFR Part 1910.

Participants will:
- Recognize proper methods for moving, storing, and handling hazardous materials
- Identify the proper electrical equipment in storage and handling areas
- Discuss necessary precautions for dispensing flammable liquids

OSHA #7105 Evacuation and Emergency Planning
1 day | MESH hours: 7.5
This course covers OSHA requirements for emergency action and fire protection plans and is designed for small employers or a designated representative such as a safety specialist, line supervisor or manager responsible for developing an emergency action plan.

Participants will:
- Identify the need and process for developing an emergency action plan
- Describe options for providing for fire, rescue, and medical services

OSHA #7205 Health Hazard Awareness
1 day | MESH hours: 7.5
This course covers common health hazards that are encountered in the workplace such as chemical, biological, physical and ergonomic hazards, and specifically addresses exposure to chemicals, asbestos, silica and lead.

Participants will:
- Discuss techniques to recognize health hazards
- Describe tools and methods to evaluate and control exposure to health hazards

OSHA #7210 Pandemic Influenza and Workplace Preparedness
1 day | MESH hours: 7.5
This course covers recognizing hazards and risks associated with a pandemic influenza event and developing strategies to assist a business, community, or family with realistic preparation for a pandemic event to assure business continuity and employee safety. Information will be provided on strategies that can be used to control the spread of the virus, minimize exposure to employees and family, and offer resources available from OSHA and other government agencies.

Participants will:
- Identify methods to examine current chemical use and identify alternatives to hazardous chemicals and processes
- Describe a strategy for selecting and implementing a safer alternative

OSHA #7225 Transitioning to Safer Chemicals
1 day | MESH hours: 7.5
This course will provide participants with information about the process for transitioning to safer chemicals, as well as the key methods, tools, and databases that can assist in this process. Using OSHA’s seven-step substitution planning process, participants will be guided through evaluating chemical use, identifying and assessing alternatives, and implementing those safer alternatives.

This course is ideal for purchasing staff, maintenance supervisors, facility managers, and workers who utilize hazardous chemicals at their worksites. Participants are encouraged to bring a laptop computer in order to participate in the classroom group activities.

Participants will:
- Detect the potential impact of a pandemic influenza event on a business and community
- Identify critical elements of a preparedness plan

Looking for online training? The Southeastern OSHA Training Institute Education Center has developed numerous online resources for you to utilize in your work environment. For more information, visit ies.ncsu.edu/EHSonline.

Wendy Shepherd
Safety & Health Specialist
NC State Industry Expansion Solutions
Hazardous Materials and Emergency Planning

DOT Hazardous Materials Transportation Training
2 days | MESH hours: 14
This two-day course will cover the basic requirements for shipping hazardous materials using 49 CFR (DOT) regulations. This includes the fundamentals of shipping hazardous materials and hazardous wastes, quantity exemptions and exceptions, and recent changes in the regulations. You will learn how to apply the rules to your materials.

DOT Hazardous Materials Transportation Refresher
1 day | MESH hours: 7
This one-day course will review the requirements for shipping hazardous materials using 49 CFR (DOT) regulations, and discuss the fundamentals of shipping hazardous materials and hazardous wastes, quantity exemptions and exceptions, and recent changes in the regulations. This course is required every 3 years to remain compliant.

Hazardous Waste Management for Generators
1 day | MESH hours: 7
According to the Resource Conservation and Recovery Act (RCRA), generators of hazardous waste are required to properly classify, manage and ship their wastes. This course offers guidance to those who must comply with the regulations for conditionally exempt, small and large quantity generators.

40-Hour HAZWOPER for Hazardous Waste Site Workers
5 days | MESH hours: 40
If workers perform activities that expose or potentially expose them to hazardous substances, OSHA requires them to be familiar with methods and procedures to protect themselves and others from the safety and health risks of these hazardous materials. You will learn how to apply the rules to your materials.

Participants will:
• Identify and practice methods and procedures for recognizing, evaluating and controlling hazardous substances
• Select and use appropriate protective equipment including respirators, protective suits, boots and gloves

24-Hour HAZWOPER for Hazardous Waste Site Workers
3 days | MESH hours: 24
This course meets the training requirements of OSHA’s HAZWOPER standard — 29 CFR 1910.120 paragraphs (b) through (o). If workers perform activities that require them to enter hazardous waste sites, then they need to be prepared to protect themselves. This course will increase understanding of health and safety plans, protective equipment and many other aspects of working around hazardous waste.

Participants will:
• Recognize site work plans, safety and health plans, hazard recognition, personal protective equipment and monitoring on hazardous waste sites
• Be able to work safely around hazardous materials and wastes

24-Hour HazMat Technician for Emergency Response
3 days | MESH hours: 24
This course meets the OSHA training requirements of hazardous material technician level for emergency responders as outlined in the HAZWOPER standard, 29 CFR 1910.120(q). HazMat technicians are individuals who respond to releases or potential releases for the purpose of stopping the release.

Participants will:
• Identify methods and procedures for recognizing, evaluating and controlling hazardous substances
• Identify guidelines to properly protect response personnel up to Level A protection
• Discuss fundamentals of the Incident Command System (ICS)
• Demonstrate the use and limitations of direct-reading air monitoring instruments

Continual improvement of a safety and health management system includes management commitment, employee engagement, identification and control of workplace hazards, and training. Our specialists can assist with any of the steps of a management system, in addition to the identification of regulatory requirements.

Quinton D. Lewis
Safety & Health Specialist
NC State Industry Expansion Solutions
Hazardous Materials and Emergency Planning

8-Hour Hands-On HAZWOPER Refresher
1 day | MESH hours: 8

Unlike traditional HAZWOPER courses, this workshop focuses on recognizing and avoiding common physical and chemical industrial hazards by using appropriate preparatory techniques, on-site work practices and air monitoring instrumentation. This is an annual refresher class. ALL participants must complete a minimum of 24 hours of initial HAZWOPER training.

Participants will:
- Identify common physical and chemical industrial hazards and review actual incidents involving these hazards
- Review common usage problems with air-purifying and air-supplying respiratory protection
- Discuss how to appropriately select air monitoring instrumentation and how to properly interpret results
- Practice competencies

8-Hour HAZWOPER for Environmental Professionals
1 day | MESH hours: 8

Environmental professionals should be familiar with compliance guidelines for hazardous waste site cleanup and corrective action operations as outlined in 29 CFR 1910.120(e)(8) and (p)(7)(iii). This course meets the annual refresher requirements of 29 CFR 1910.120 by presenting realistic HazMat issues for group discussion.

This is an annual refresher class. ALL participants should have completed a minimum of 24 hours of initial HAZWOPER training.

Participants will:
- Employ critical thinking and demonstrate practical skills for HazMat incidents

Environmental Health and Safety Management

ISO 14001 Environmental Management Systems - Internal Auditor Training
2 days | MESH hours: 14

This course introduces the concepts of ISO 14001 and helps you acquire the skills to conduct a successful internal audit of an Environmental Management System (EMS). Exercises include a fully simulated audit under the guidance of a certified Plexus Trainer.

ISO 50001 Energy Management Systems Overview
1 day | MESH hours: 7

After the success of management systems for environmental issues (ISO 14001) and quality issues (ISO 9001), ISO has issued ISO 50001 for Energy Management Systems (EnMS). This course helps you understand the requirements of the ISO 50001 standard and determine if it is the correct fit for your company. The instructor provides typical approaches and a full range of documents used to meet those requirements. For those who have decided on developing an EnMS, this class will reveal the systematic process to building the EnMS and being certified.

Our Specialists have assisted more than 50 companies with customized technical assistance to achieve certification to an international environmental or safety and health management system.

Charlie Parrish
Environmental Engineering Specialist
NC State Industry Expansion Solutions
ISO 45001 Occupational Health and Safety Assessment Series - Internal Auditor Training

2 days | MESH hours: 14

ISO 45001 will replace OHSAS 18001, the internationally recognized specification for Occupational Health and Safety Management Systems (OHSMS). This course will describe the implementation and maintenance of an OHSMS utilizing the most current version of this international standard as it proceeds through approval. The OHSMS can be adopted by any organization wishing to control and reduce occupational accidents, incidents, and near misses.

Onsite Safety and Health Technical Assistance

Safety and Health Audits

The Southeastern OSHA Training Institute Education Center instructors are available to conduct comprehensive or area-focused safety audits to identify safety and health hazards so that employers can reduce or eliminate them, thus making for a safe and healthy workplace. We provide consultative support to explain OSHA regulations as well as other state and federal regulations, ensure compliance with these regulations, and produce confidential reports of observations and subsequent recommendations to ensure compliance and cultivate an effective safety and health program.

Customized Technical Assistance

Managing safety and health can require numerous resources and skills. Contact the Southeastern OTI Education Center if you have a need for specialized technical assistance. Whether you need to develop a Confined Space Entry program, coordinate an emergency drill, or establish a Safety Committee, our Safety & Health Specialists can assist you.

Our trailer stores equipment to easily mobilize and train your staff in HAZWOPER, emergency planning, and incident command.

Contact us at SoutheasternOTI@ncsu.edu for more information.

Need safety training at your site? Our Safety and Health Specialists can travel to your site to provide customized training and technical assistance.

Michael “Mac” McNulty
Safety & Health Specialist
NC State Industry Expansion Solutions
The MESH Certificate Program demonstrates achievement through continuing education in occupational safety, health and the environment.

**Designed for environmental, safety and health professionals,** the MESH Certificate Program enables participants to gain valuable, practical knowledge while earning a respected credential.

Earn the MESH Certificate when you complete 100 hours of continuing education through the Safety and Health Council of North Carolina, The Department of Labor and/or the NC State University Industrial Extension Service.

All programs are designed for working professionals and require no prior experience or degree. Students gain valuable knowledge from experts in environmental, safety and health fields from each of the three sponsors. Course work is chosen by the student to best suit their individual needs.

There are several MESH certificates for you to consider.

**MESH**

The original MESH certificate is a great choice for anyone responsible for workplace safety, health or environmental issues. This certificate requires completion of a 30-hour core course plus 70 elective hours.

**Construction MESH (C-MESH)**

Designed for anyone responsible for construction safety and regulations, the C-MESH certificate requires that 60 of the 100 MESH credits be specific to the construction industry.

**Industrial Hygiene MESH (IH-MESH)**

If industrial hygiene concerns fall within your responsibilities, you may want to consider the IH-MESH certificate which requires that 60 of the 100 MESH credits be specific to industrial hygiene topics such as air quality, chemical exposure, occupational noise, etc.

**Public Sector MESH (PS-MESH)**

The PS-MESH certificate should be considered by anyone responsible for safety in a local, state or federal government environment. Requirements include completion of a core course plus 70 additional hours that feature a blend of general industry, construction and industrial hygiene topics.

**Frequently Asked Questions**

**How do I get started on my MESH Certificate?**

Complete the free online registration at ies.ncsu.edu/mesh

**Which courses apply to the MESH certificate program?**

MESH credits are earned by completing continuing education training. Classes taken for college credit are not counted as MESH credit. All environmental safety and health courses offered by the MESH program sponsors at the NC State University Industrial Extension Service, the Safety and Health Council of NC, and the NC Department of Labor are eligible for MESH credit. Training provided by other organizations may be counted up to a maximum of 25 of the 100 required hours.

**What is a Core Course?**

All MESH certificates require a course approximately 30 hours in length offered by one of the MESH program sponsors. Below are some CORE course options:

- OSHA #511 – Standards for General Industry
- OSHA #510 – Standards for Construction Industry
- OSHA #501 – Outreach Trainer Course for General Industry
- OSHA #500 – Outreach Trainer Course for Construction
- OSHA 30-Hour or NC 30-Hour for General Industry or Construction
- OSHA #521 Guide to Industrial Hygiene (for IH-MESH only)

**What is the time frame for MESH credit hours to be considered?**

Training taken within the last five years can count towards MESH credit.

**What is the cost?**

Though some courses are offered at no cost, most courses charge a registration fee. Aside from registration and other course expenses, the only cost of the MESH Certificate Program is a $99 fee paid when you complete the required credit hours. This fee covers administrative costs and delivery of your framed MESH certificate.

**What happens when I have completed my 100 hours?**

Once we have received and verified documentation of your 100 hours of MESH credit, we will send instructions on how to submit the $99 MESH Certificate fee. No re-certification is required.
Consider pursuing OSHA’s Public Sector Safety & Health Fundamentals Certificate if you currently work for the public sector in a local, state or government agency in the occupational safety and health field.

To earn a Public Sector Safety & Health Fundamentals Certificate, you must complete a minimum of seven (7) OSHA Training Institute (OTI) Education Center courses, comprised of three (3) required courses and additional elective courses, for a minimum of 68 instructional hours. The certificate program is separated into tracks for Construction and General Industry.

Choose from a variety of topics such as occupational safety and health standards for the construction or general industry, safety and health management, accident investigation, fall hazard awareness and recordkeeping.

For more information
ies.ncsu.edu/osha-certificate
osha.gov/dte/public_sector

How does the Public Sector Certificate program differ from the MESH Certificate program?
The Public Sector Safety & Health Fundamentals Certificate program supports federal OSHA’s mission by training public sector employees in occupational safety and health to reduce incident rates for workers in state and local governments.

All of the courses included in this program must be taken at an authorized OSHA Training Institute (OTI) Education Center, such as the Southeastern OSHA Training Institute Education Center at NC State University or The University of Tennessee.

Frequently Asked Questions

What are the required and elective courses to achieve the Public Sector Safety & Health Fundamentals Certificate?
The three (3) required courses for the Construction and General Industry Certificates include:

- OSHA Standards course (either OSHA #510 Standards for Construction Industry or OSHA #511 Standards for General Industry)
- OSHA #7500 Introduction to Safety and Health Management and
- OSHA #7505 Introduction to Accident Investigation

The four (4) elective courses can be selected from a series of OTI Education Center courses that are relevant for the public sector.

To select from this list of courses, go to ies.ncsu.edu/osha-certificate.

How do I apply for the Public Sector Safety & Health Fundamentals Certificate?
Upon completion of the last course toward earning the certificate, request an Application Verification Form from the Southeastern OSHA Training Institute Education Center, where you must have completed at least one of the required or elective courses. Complete the Application Verification Form, submit proof of successful completion of each course, and remit the processing fee.

What is the appropriate proof of successful course completion?
Appropriate proof of successful course completion is a course completion certificate or official transcript from the respective OTI Education Center.

What is the cost associated with earning the Public Sector Safety & Health Fundamentals Certificate?
The registration fees for the OTI Education Center courses vary depending on the length of the class. Once you complete all of the course work, there is an administrative fee of $95 to submit your application for the Public Sector Safety & Health Fundamentals Certificate.
Ensure Your Company’s Safety and Health Compliance

NC State University
ies.ncsu.edu/otieducationcenter
919.515.2358

The University of Tennessee
cis.tennessee.edu
615.532.8657

Online Courses
ies.ncsu.edu/EHSonline

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