



Safety and Health Specialist (SHS) – Construction Concentration

Participants must complete a minimum of five (5) required and four (4) elective courses that include a minimum of 135 contact hours of training through OTI Education Center*** and/or EMU courses to earn the Safety and Health Specialist (SHS) – Construction Concentration certificate.

- Participants must complete the five (5) required courses as listed below.
- Participants must complete a minimum of four (4) elective courses as listed below.

| Required Courses | | |
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| R | <p>OSHA #510 Occupational Safety and Health Standards for Construction (26)</p> <p>This course covers OSHA Standards, policies, and procedures in the construction industry. Topics include scope and application of the OSHA Construction Standards, construction safety and health principles, and special emphasis on those areas in construction that are most hazardous. Upon course completion, students will have the ability to define construction terms found in the OSHA Construction Standards, identify hazards which occur in the construction industry, locate and determine appropriate OSHA Construction Standards, policies, and procedures, and describe the use of the OSHA Construction Standards and regulations to supplement an ongoing safety and health program. Minimum student contact hours: 26</p> | \$800/\$720* |
| R | <p>OSHA #500 Trainer Course in Occupational Safety and Health Standards for the Construction Industry (26)</p> <p>This course is designed for individuals interested in teaching the 10- and 30-hour construction safety and health Outreach Training Program to their employees and other interested groups. Using OSHA Construction Standards as a guide, special emphasis is placed on those topics required in the 10- and 30-hour programs as well as those which are most hazardous. Students are briefed on effective instructional approaches and use of visual aids and handouts. This course allows the student to become a trainer in the OSHA Outreach Training Program, to conduct both 10- and 30-hour Construction Outreach classes, and to issue cards to participants after verifying course completion. Students who wish to participate as authorized Outreach trainers in the OSHA Outreach Training Program must prepare a presentation on an assigned OSHA Construction Outreach Training Program topic individually or as part of a group and successfully pass a written exam at the end of the course. Minimum student contact hours: 26</p> <p>Prerequisites: Students must successfully complete the OSHA #510 Occupational Safety and Health Standards for Construction and have five (5) years of safety and health work experience in the construction industry. A degree in occupational safety and health, a Certified Safety Professional (CSP) or a Certified Industrial Hygienist (CIH) designation may be substituted for two (2) years of work related experience. Students should obtain guidance on whether they meet this requirement from the OSHA Training Institute Education Center where they intend to receive the training. Authorized OSHA Outreach Training Program trainers are required to attend OSHA #502 Update for Construction Industry Outreach Trainers at least once every four (4) years to maintain their trainer status.</p> | \$800/\$720* |
| R | <p>OSHA #7500 Introduction to Safety and Health Management (7)</p> <p>This course covers the effective implementation of a company's safety and health management system.</p> | \$225/\$202.50* |

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| | The course addresses the four core elements of an effective safety and health management system and those central issues that are critical to each element's proper management. This course is an interactive training session focusing on class discussion and workshops. Upon course completion, students will have the ability to evaluate, develop, and implement an effective safety and health management system for their company. Minimum student contact hours: 5.5 | |
| R | <p>OSHA #7505 Introduction to Incident (Accident) Investigation (14) This course covers an introduction to basic accident investigation procedures and describes accident analysis techniques. Course topics include reasons for conducting accident investigations, employer responsibilities related to workplace accident investigations, and a six-step accident investigation procedure. The target audience is the employer, manager, employee or employee representative who is involved in conducting accident and/or near miss investigations. Upon course completion, students will have the basic skills necessary to conduct an effective accident investigation at the workplace. Minimum student contact hours: 7.5</p> | \$475/\$427.50* |
| R | <p>OSHA #7405 Fall Hazard Awareness for the Construction Industry (5) This course covers the identification, evaluation, prevention and control of fall hazards in the construction industry. The course focuses on falls to a lower level rather than falls to the same level resulting from slips and falls. Course topics include identifying, analyzing, and preventing fall hazards utilizing OSHA Fall Protection Standards. At the conclusion of the course, students will have an awareness level of identifying fall hazards and methods to control and abate the hazards. Minimum student contact hours: 5</p> <p style="text-align: center;">OR</p> <p>OSHA #3115 Fall Protection (18) This course covers the OSHA Fall Protection Standard for construction and an overview of fall protection methods. Course topics include principles of fall protection, components and limitations of fall arrest systems, and OSHA Standards and policies regarding fall protection. Students will participate in workshops demonstrating the inspection and use of fall protection equipment, residential construction fall protection, training requirements, and developing a fall protection program. Upon course completion, students will have the ability to assess compliance with the OSHA Fall Protection Standard, evaluate installed passive systems and fall arrest systems, and develop and implement fall protection plans. Minimum student contact hours: 18</p> <p style="text-align: center;">OR</p> <p>Fall Protection/Competent Person – Online (8)** This course will be helpful to anyone who works on job site where fall hazards exist. The course is designed to provide workers with information about continuous and effective protection from fall hazards. Practical methods for using safety equipment are provided to help students prepare to function as a competent person. The information presented in this course complies with OSHA guidelines.</p> | <p>\$225/\$202.50*</p> <p>\$725/\$652.50*</p> <p>\$295/\$265.50*</p> |
| Elective Courses | | |
| E | <p>OSHA #521 OSHA Guide to Industrial Hygiene (26) This course covers industrial hygiene practices and related OSHA regulations and procedures. Course topics include recognition, evaluation, and control of chemical, physical, biological and ergonomic hazards, Permissible Exposure Limits (PEL), OSHA health standards, respiratory protection, engineering controls, OSHA sampling protocols and strategies, and workplace health program elements. The course features workshops in health hazard recognition, OSHA health standards and use of sampling</p> | \$800/\$720* |

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| | <p>equipment. Upon course completion, students will have the ability to recognize basic industrial hygiene principles and practices, identify characteristics of common air contaminants, locate PELs, perform basic industrial hygiene calculations, and determine methods for hazard control and abatement. Minimum student contact hours: 26</p> <p style="text-align: center;">OR</p> <p>Industrial Hygiene – Online (26)** This course is designed for those who are interested in increasing their knowledge of industrial hygiene practices and related OSHA regulations and procedures. Topics include permissible exposure limits, OSHA health standards, respiratory protection, engineering controls, hazard communication, sampling instrumentation, workplace health program elements and other industrial hygiene topics. Course highlights include workshops in health hazard recognition, the use of OSHA health standards and a safety and health program workshop.</p> | \$800/\$720* |
| E | <p>OSHA #2015 Hazardous Materials (26) This course covers OSHA General Industry Standards and other consensus and proprietary standards that relate to the use of hazardous materials. Course topics include flammable and combustible liquids, compressed gases, LP-gases, and cryogenic liquids. Related processes such as spraying and dipping, and use of electrical equipment in hazardous locations are also discussed. Upon course completion, students will have the ability to assess compliance with OSHA hazardous materials standards, determine hazardous (classified) locations, and proper moving, storing, and handling of hazardous materials. Minimum student contact hours: 26</p> <p style="text-align: center;">OR</p> <p>Hazardous Materials – Online (26) This course is designed for those who are interested in increasing their knowledge of hazardous materials and related OSHA regulations and procedures. It covers OSHA general industry standards and integrates materials from other consensus and proprietary standards that relate to hazardous materials. Included are flammable and combustible liquids, compressed gases, LP-gases and cryogenic liquids. Related processes such as spraying and dipping are covered, as well as electrical equipment.</p> | \$800/\$720* |
| E | <p>OSHA #2055 Cranes in Construction (22.5) This course covers the best practices in crane and derrick operation using the OSHA Cranes and Derricks in Construction Rule as a guide. Course topics include hazards associated with crane assembly and disassembly, types of cranes, lifting concepts, rigging and wire rope, signaling, employee qualifications and training, and maintenance, repair, and inspection requirements. Students will participate in workshops to reinforce concepts of safe crane operation. Upon course completion, students will have the ability to identify the types of cranes and their components and attachments, determine safe operating conditions, and recognize common violations of OSHA Standards. Minimum student contact hours: 22.5</p> | \$725/\$652.50* |
| E | <p>OSHA #2225 Respiratory Protection (26) This course covers the requirements for the establishment, maintenance, and monitoring of a respiratory protection program. Course topics include terminology, OSHA Respiratory Protection Standards, NIOSH certification, respiratory protection programs, and medical evaluation requirements. Program highlights include workshops on respirator selection, qualitative and quantitative fit testing, and the use of respiratory protection and support equipment. Upon course completion, students will have the ability to identify and describe the elements of a respiratory protection program, the proper selection, use, and inspection of respiratory protection, protection factors, and evaluate compliance with OSHA Standards. Minimum student contact hours: 26</p> | \$800/\$720* |

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| E | <p>OSHA #7300 Understanding OSHA’s Permit-Required Confined Space Standard (7) 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. This course is designed for small employers or a designated representative (line supervisor or manager) with the responsibility to develop a permit-required confined space program. Upon course completion, students will have a basic understanding of confined space hazards, evaluating and abatement of the hazards, and determining when a confined space shall be classified as a permit-required confined space. Minimum student contact hours: 7</p> <p style="text-align: center;">OR</p> <p>OSHA #2264 Permit-Required Confined Space Entry (20) This course covers the safety and health hazards associated with permit-required confined space entry. Course topics include recognition of confined space hazards, identification of permit and non-permit required confined spaces, use of instrumentation to evaluate atmospheric hazards, ventilation techniques, development and implementation of a confined space program, proper signage, and training requirements. This course features workshops on permit entry classification, instrumentation, and program development. Upon course completion, students will have the ability to identify permit and non-permit required confined spaces, reference the OSHA Permit-Required Confined Spaces Standard, conduct atmospheric testing, and implement a permit-required confined space program. Minimum student contact hours: 20</p> <p style="text-align: center;">OR</p> <p>Permit Required Confined Spaces – Online (20)** This course is designed to enable students to recognize, evaluate, prevent and abate safety and health hazards associated with confined space entry. Technical topics include the recognition of confined space hazards, basic information about instrumentation used to evaluate atmospheric hazards, and ventilation techniques. This course features workshops on permit entry classification and program evaluation.</p> | <p>\$225/\$202.50*</p> <p>\$725/\$652.50*</p> <p>\$725/\$652.50*</p> |
| E | <p>OSHA #3095 Electrical Standards (26) This course covers OSHA Electrical Standards and the hazards associated with electrical installations and equipment. Course topics include single- and three-phase systems, cord- and plug-connected and fixed equipment, grounding, ground fault circuit interrupters, and safety-related work practices. Emphasis is placed on electrical hazard recognition and OSHA Standards, policies, and procedures and applicable portions of the National Electrical Code (NEC). Students will participate in workshops on the safe and correct use of electrical testing equipment. Upon course completion, students will have the ability to understand the severity of electrical current on the human body, recognize and evaluate actual and potential electrical hazards and reference the applicable OSHA Standard, determine hazard abatement measures, and understand the proper use of electrical testing equipment. Minimum student contact hours: 26</p> | <p>\$800/\$720*</p> |
| E | <p>OSHA #7410 Managing Excavation Hazards (6.5) 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 application of definitions relating to the OSHA Excavation Standard, excavation hazards and control measures, soil analysis techniques, protective system requirements and emergency response. Upon course completion, students will</p> | <p>\$225/\$202.50*</p> |

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| | <p>understand the importance and duties of a competent person in excavation work and have the knowledge and skills required performing these duties. Minimum student contact hours: 6.5</p> <p style="text-align: center;">OR</p> <p>OSHA #3015 Evacuation, Trenching and Soil Mechanics (20) This course covers the OSHA Excavation Standard and safety and health aspects of excavation and trenching. Course topics include practical soil mechanics and its relationship to the stability of shored and unshored slopes and walls of excavations, introduction of various types of shoring (wood timbers and hydraulic), soil classification, and use of protective systems. Testing methods are demonstrated and students participate in workshops in the use of instruments such as penetrometers, torvane shears, and engineering rods. Upon course completion, students will have the ability to assess their employer's compliance with the OSHA Excavation Standard, utilize soil testing methods to classify soil types, determine protective systems for excavation operations, and training requirements. Minimum student contact hours: 20</p> <p style="text-align: center;">OR</p> <p>Trenching and Excavation Qualified Person (8) This program provides you with an overview of MIOSHA standards, best practices and hazard recognition for trenching and excavation worksites. It covers the qualifications for a qualified person, including performing field tests, importance of compliance and inspections, limitation of trenching shields and sloping and shoring requirements.</p> | <p style="text-align: right;">\$725/\$652.50*</p> <p style="text-align: right;">\$225/\$202.50*</p> |
| E | <p>OSHA #7105 Evacuation and Emergency Planning (4) This course covers OSHA requirements for emergency action and fire protection plans. Course topics include purpose and requirements of emergency action and fire prevention plans, elements of emergency evacuation plans, and features of design and maintenance of emergency exit routes. Students will participate in workshops pertaining to the development of emergency action plans. Upon course completion, students will have the ability to list the elements of an emergency action plan and emergency evacuation floor plans, recognize violations of OSHA exit route requirements, determine whether their organization requires an emergency action plan, and develop and implement workplace emergency action and fire protection plans. Minimum student contact hours: 4</p> | \$125/\$112.50* |
| E | <p>OSHA #7110 Safe Bolting: Principles and Practices (7) This course covers awareness of safety issues involved in bolting applications. Course topics include safe operation and handling of high powered bolting tools, pressure vessels and piping, machinery or mechanical joints, and structural connections. The course provides workshops and demonstrations of safe bolting applications. The target audience is first line mechanical operators including millwrights, pipefitters, and those who work with mechanical joints as part of their daily work. Upon course completion, the student will have the ability to understand the basic technology of bolted joints, safety principles associated with tool selection and operation, workplace conditions, and bolting methods and procedures. Minimum student contact hours: 7</p> | \$225/\$202.50* |
| E | <p>OSHA #7205 Health Hazard Awareness (6) This course covers common health hazards that are encountered in the workplace. These health hazards include exposure to chemicals, asbestos, silica and lead. Course topics include identification and evaluation of health hazards and their sources of exposure, health hazard information, and engineering and work practice controls. Students participate in workshops on evaluation and abatement of workplace health hazards. Upon course completion, students will have the ability to understand common health hazards in the workplace and methods for controlling and abatement of these hazards. Minimum student contact hours: 6</p> | \$225/\$202.50* |

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| E | <p>OSHA #7400 Noise in the Construction Industry (5.5) 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. The target audience is the construction employer or representative designated with the responsibility to develop a construction noise program. Upon course completion, students will understand the properties of sound and its relationship to noise-induced hearing loss, hearing protection usage, how to conduct sound level surveys and the requirements for training workers. Minimum student contact hours: 5.5</p> | \$225/\$202.50* |
| E | <p>OSHA #7415 Construction Industry Requirements (Major Hazards and Prevention) (12) This course provides federal and public sector employees with pertinent information regarding OSHA requirements and guidelines applicable to construction industry activities and operations. Topics include recognition of major safety and health hazards in the construction industry, prevention strategies, safety and health management systems, OSHA requirements and guidelines, and resources available. The course is an interactive training session focusing on class discussion and workshops. Upon course completion, students will have an awareness level of the major construction hazards and prevention strategies. Minimum student contact hours: 12</p> | \$475/\$427.50* |
| E | <p>Protecting Construction Workers From Silica (8) This one day class will cover the nature of crystalline silica, hazards of crystalline silica exposure, common materials containing silica, typical operations and tasks with potential silica exposure, various exposure control measures, and OSHA's Respirable Crystalline Silica Standard for construction.</p> | Free |
| E | <p>OSHA #7845 Recordkeeping Rule Seminar (4) This course covers OSHA requirements for maintaining and posting records of occupational injuries and illnesses, and reporting specific cases to OSHA. Upon course completion, students will have the ability to identify OSHA requirements for recordkeeping, posting and reporting and to complete OSHA Form 300 Log of Work-Related Injuries and Illnesses, OSHA Form 300A Summary of Work-Related Injuries and Illnesses, and OSHA Form 301 Injury and Illness Incident Report. Minimum student contact hours: 4</p> | \$125/\$112.50* |

*Enroll as a certificate program member (\$50 membership fee) to receive a 10% discount on each course in your program.

**Online offerings are not official OSHA numbered courses and may not apply to all certificates.

*** Certificates must be completed within 5 years; courses completed more than 5 years ago may not be applied toward the certificate. You may transfer up to two OSHA numbered courses from another OTI Education Center for this certificate. Please include course certificates with your completed course checklist when requesting your Safety and Health Specialist (SHS) – Construction Concentration certificate.

Contact ppat@emich.edu to enroll as a certificate program member or receive an application for a completed certificate.

