Safety and Health Specialist (SHS) – General Industry 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) – General Industry 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		
R	**OSHA #511 Occupational Safety and Health Standards for General Industry (26)** This course covers OSHA Standards, policies, and procedures in general industry. Topics include scope and application of the OSHA General Industry Standards, general industry principles and special emphasis on those areas in general industry, which are most hazardous. Upon course completion students will have the ability to define general industry terms found in the OSHA General Industry Standards, identify hazards which occur in general industry, locate and determine appropriate OSHA General Industry Standards, policies, and procedures, and describe the use of OSHA General Industry Standards and regulations to supplement an ongoing safety and health program. Minimum student contact hours: 26	$800/$720*
R	**OSHA #7500 Introduction to Safety and Health Management (7)** This course covers the effective implementation of a company's safety and health management system. 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	$225/$202.50*
R	**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	$475/$427.50*
R	**OSHA #501 Trainer Course in Occupational Safety and Health Standards for General Industry (26)** This course is designed for individuals interested in teaching the 10- and 30-hour general industry safety and health Outreach training program to their employees and other interested groups. Using the OSHA General Industry 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	$800/$720*

	become a trainer in the OSHA Outreach Training Program, to conduct both 10- and 30-hour General Industry Outreach classes, and to issue cards to participants after verifying course completion. Students who wish to participate as authorized trainers in the OSHA Outreach Training Program must prepare a presentation on an assigned OSHA General Industry 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 *Prerequisites:* Students must successfully complete the OSHA #511 *Occupational Safety and Health Standards for General Industry* and have five (5) years of safety and health work experience in general 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.	
R	**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 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	$800/$720*
	OR	
	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.	$800/$720*
Elective Courses		
E	**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 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	$800/$720*
	OR	
	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	$800/$720*

	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.	
E	**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	$800/$720*
E	**OSHA #2255 Principles of Ergonomics (18)** This course covers the use of ergonomic principles to recognize, evaluate, and control workplace conditions that cause or contribute to musculoskeletal and nerve disorders. Course topics include work physiology, anthropometry, musculoskeletal disorders, use of video display terminals, and risk factors such as vibration, temperature, material handling, repetition, and lifting and patient transfers in health care. Course emphasis is on industrial case studies covering analysis and design of workstations and equipment workshops in manual lifting, and coverage of current OSHA compliance policies and guidelines. Upon course completion, students will have the ability to recognize work-related musculoskeletal and nerve disorders, assess employer's ergonomic programs, and conduct ergonomic evaluations. Minimum student contact hours: 18	$725/$652.50*
	OR	
	Principles of Ergonomics – Online (18)** This course covers the use of ergonomic principles to recognize, evaluate, and control workplace conditions that cause or contribute to musculoskeletal and nerve disorders. Course topics include work physiology, anthropometry, musculoskeletal disorders, use of video display terminals, and risk factors such as vibration, temperature, material handling, repetition, and lifting and patient transfers in health care. Course emphasis is on industrial case studies covering analysis and design of workstations and equipment workshops in manual lifting, and coverage of current OSHA compliance policies and guidelines. Upon course completion, students will have the ability to recognize work-related musculoskeletal and nerve disorders, assess employer's ergonomic programs, and conduct ergonomic evaluations.	$725/$652.50*
E	**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	$800/$720*
E	**OSHA #7105 Evacuation and Emergency Planning (4)** This course covers OSHA requirements for emergency action and fire protection plans. Course topics	$125/$112.50*

	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	
E	**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 OR **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 OR **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.	$225/$202.50* $725/$652.50* $725/$652.50*
E	**OSHA #7005 Public Warehousing and Storage (7)** 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. This course is intended for warehouse workers, supervisors, and employers responsible for developing safe work practices and procedures in a warehouse setting. Upon course completion, students will have the ability to recognize the potential for injuries from forklifts, material handling and lifting, exposure to hazardous substances, slips, trips, and falls and methods to control and abate these hazards. Minimum student contact hours: 7	$225/$202.50*

E	**OSHA #7100 Introduction to Machinery and Machine Safeguarding (7)** This course covers the process to identify, select and properly safeguard machinery to protect employees and others in the work area and deliver appropriate training in safe work practices. Course topics include types of machinery requiring guarding, point of operation, emergency eyewash/shower requirements, hazard communication, OSHA Machinery and Machine Guarding Standards violations, and corrective actions. Upon course completion, students will have the ability to explain hazardous actions and motions of various types of machinery, identify methods of safeguarding, and match identified safeguards with the applicable OSHA Machinery and Machine Guarding Standards to reduce and eliminate the potential for accidents and injuries. Minimum student contact hours: 4 OR **OSHA #2045 Machinery and Machine Guarding Standards (26)** This course covers the various types of common machinery, machine safe guards, and related OSHA regulations and procedures. Guidance is provided on the hazards associated with various types of machinery and the determination of proper machine safe guards. Course topics include machinery processes, mechanical motions, points of operation, control of hazardous energy sources (lockout/tagout), guarding of portable powered tools, and common OSHA machine guarding violations. Program highlights include the ability to recognize hazards and provide options for control and hazard abatement through machine safeguarding inspection workshops. Upon course completion, students will have the ability to describe common machine hazards and sources of energy, identify resources for assisting with machine guarding issues, and determine methods of control and hazard abatement, and selection of appropriate machine safe guards. Minimum student contact hours: 26	$225/$202.50* $800/$720*
E	**OSHA #7115 Lockout/Tagout (7.5)** This course covers the role and responsibility of the employer to develop and implement an energy control program, or lock-out/tag-out (LOTO) for the protection of workers while performing servicing and maintenance activities on machinery and equipment. Course topics include types of hazardous energy, detecting hazardous conditions, implementing control measures as they relate to the control of hazardous energy, developing and implementing energy control programs including written isolation procedures, training of authorized and affected employees, and periodic inspection of energy control procedures using the OSHA Control of Hazardous Energy Standard. Upon course completion, the student will have the ability to explain the importance of energy control programs, procedures, training, audits and methods of controlling hazardous energy. Minimum student contact hours: 7.5	$225/$202.50*
E	**OSHA #7125 Seminar on Combustible Dust Hazards (7)** This course covers the hazards posed by combustible dust within general industry. The course topics include recognizing the hazards and risks associated with combustible dust, control of electrical installation hazards, and developing controls and strategies to prevent or mitigate combustible dust fires and explosions. The seminar format is a shortened version of the OSHA #7120 Introduction to Combustible Dust Hazards and omits discussions on National Fire Protection Association (NFPA) Standards, combustible dust definitions, and workshops. Upon course completion, the student will have the ability to utilize strategies that assure employee safety in those industries that use or produce materials that generate combustible dust. Minimum student contact hours: 6.5	$225/$202.50*
E	**OSHA #7225 Transitioning to Safer Chemicals (7.5)** This course covers a proactive approach to reducing the use of hazardous chemicals in the workplace by transitioning to safer alternatives. Course topics include identification, evaluation, assessment, and implementation of safer chemical alternatives. In particular, participants will use OSHA’s seven-step substitution planning process. The course features workshops and hands-on activities with the use of	$225/$202.50*

	various online chemical databases and tools. The target audience is purchasing staff, maintenance supervisors, facility managers, and workers who utilize hazardous chemicals at their worksites, along with occupational safety and health professionals who provide technical assistance on the control of chemical hazards. Upon course completion, participants will have the ability to recognize and evaluate hazardous chemicals in their workplace, assess safer alternatives, and implement those alternatives. Minimum student contact hours: 7.5	
E	**OSHA #7510 Introduction to OSHA for Small Businesses (4)** This course covers an introduction to the Occupational Safety and Health Administration (OSHA) and the OSH Act for owners and managers of small businesses. Course topics include an introduction to OSHA, OSHA Standards, the inspection process, implementing a safety and health program, worker training requirements and assistance available to small businesses. Upon course completion, students will understand OSHA operations and procedures and how to work with OSHA to prevent or reduce injuries and illnesses in their workplace. Minimum student contact hours: 3.5	$125/$112.50*
E	**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	$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. Online Occupational Safety and Health Standards course does not meet the prerequisite requirement for the OSHA 501 Trainer Course.*

**** 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 OTI 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) – General Industry Concentration certificate.*

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

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