

**DRAFT NEW TRADE**  
**INDUSTRIAL HYGIENIST**  
**(Time-Based)**

**APPENDIX A**

O\*NET CODE 19-5011.00

This training outline is a minimum standard for Work Processes and Related Instruction. Changes in technology and regulations may result in the need for additional on-the-job or classroom training.

**WORK PROCESSES**

	<b>Approximate Hours</b>
<b>A. Workplace Orientation</b>	<b>100</b>
1. Maintain compliance with all standards of the New York State Department of Labor (Department).	
2. Understand and apply Department policies, rules, procedural regulations, directives, and office policies.	
3. Understand and apply Federal and State occupational safety and health standards and regulations.	
4. Demonstrate proper use of Department equipment and resources (such as: office equipment; state vehicles; etc.).	
5. Demonstrate customer service skills (e.g., problem solving, attentiveness, patience, and attention to detail).	
6. Exhibit professionalism when dealing with employers and maintain Department and employer privacy.	
<b>B. Conducting Inspections</b>	<b>1000</b>
1. Prepare equipment or supplies necessary to conduct an inspection.	
2. Conduct employer history search, and research applicable industry practices and safety measures.	
3. Travel to construction sites, industrial plants, and other facilities to perform inspections.	
4. Conduct on-site inspections of private and public sector employers to ensure compliance with New York State's occupational health laws and regulations, and to identify potential safety and health hazards in the workplace.	
5. Inspect facilities to ensure they comply with safety and health regulations and coordinate corrective action.	

6. Conduct interviews with management and employees to assess workplace safety and health conditions, and to determine any exposure to hazards.
7. Investigate safety and health-related complaints reported by employees.
8. Investigate safety and health-related incidents and accidents (including fatalities) to determine their cause and develop strategies to prevent future incidences.
9. Conduct onsite Division of Safety and Health (DOSH) form completion and engage in abatement assistance and the closing conference:
  - a. Take field notes, review documentation, and complete required forms.
  - b. Assist the employer with abatement options and ensure abatement occurs.
  - c. Inform employer, union representatives, and employees of their rights, and conduct a closing conference.
10. Participate in informal conferences, follow-up conferences, and litigation, as necessary.

### **C. Safety Awareness**

**150**

1. Observe and implement appropriate actions to maintain a safe environment, in accordance with Department policies and procedures, and to identify hazards to reduce or eliminate them.
2. Understand the use of appropriate safety equipment, such as proper clothing and personal protective equipment (PPE).
3. Ensure that all required PPE (such as gloves, safety goggles, helmets, safety shoes, and protective clothing) are being worn, used, and maintained according to manufacturing guidelines, and company, Department, and government regulations.
4. Inspect protective gear and safety equipment to determine whether it provides adequate protection from hazards, and that equipment is properly fitted, worn, and maintained.

### **D. Worksite Assessments**

**800**

1. Perform site visits and observations to identify safety and health hazards in the workplace.
2. Evaluate workplace procedures to determine safety compliance.

3. Identify safety and health exposures, and how worksite hazards impact worker health.
4. Inspect ventilation, exhaust, and lighting systems at workplaces to determine the level of exposure to employees and the community and make determinations for controls or remediation.
5. Utilize the Material Safety Data Sheet (MSDS) to identify chemical hazards, and their risks to workers.
6. Learn the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, and that hazardous substances in the workplace are required to have appropriate warnings and identification labels.
7. Identify workplace exposures to health risks (such as air contaminants, and chemical, biological, physical, ergonomic, and biomechanical hazards), and that the level of worker risk depends on the degree and length of exposure.
  - a. Recognize the components of air contaminants (gas and vapor contaminants, and particulate contaminants (which include dusts, fumes, mists, aerosols, and fibers)), and their impact on worker health.
  - b. Understand the various chemical hazards (which come in the form of solids, liquids, gases, mists, dusts, fumes, and vapors) and the health risks through accidental inhalation, absorption, or ingestion.
  - c. Identify biological hazards, such as viruses and fungi, and their potential health impact.
  - d. Learn the effects of physical hazards on workers, which can include electromagnetic radiation, noise, vibration, illumination, temperature, and radiant heat exposure.
  - e. Recognize the impact of ergonomic hazards (such as lifting, holding, pushing, walking, and reaching), and how they can be controlled or diminished through a well-designed environment.
  - f. Inspect work environments for potential biomechanical hazards (such as frequent heavy lifting, manual work, repetitive movements, prolonged stress positions, and uncomfortable body postures) and their potential impact on bones, joints, and muscles; assess how work assignments can be redesigned to avoid or mitigate these impacts.

## **E. Hazard Prevention and Controls**

**500**

1. Evaluate health and safety hazards to determine workplace exposures, assess risks, and develop a control plan.
2. Conduct workplace surveys to evaluate safety and health hazards and make recommendations for corrections or remediation.
3. Recognize the importance of implementing proper workplace controls (such as: following proper procedures that minimize exposure to safety and health hazards; ensuring equipment is properly maintained; that workplaces are properly supervised, and employee schedules are designed to minimize exposure to hazards; etc.).

#### **F. Record Keeping**

**150**

1. Document occupational health programs, policies, and procedures.
2. Maintain records and prepare reports on findings, recommendations, and any corrective actions.
3. Prepare case file documentation and inspection reports, including observations, analysis of hazards or contaminants, and recommend citations or corrections.

#### **G. Workplace Recommendations**

**150**

1. Evaluate employer actions to reduce and eliminate hazards.
2. Collaborate with management and employees to address health and safety concerns and provide recommendations for improvement.
3. Work closely with employers to establish controls and implementation of corrective measures for hazardous and potentially hazardous conditions.
4. Provide advice to management and employees on issues pertaining to industrial hygiene.

#### **H. Safety and Health Training**

**150**

1. Monitor safety programs and policies and adjust them as necessary.
2. Participate in educational meetings to instruct employees in matters pertaining to health and safety, and the prevention of accidents.
3. Develop or assist with monitoring programs to minimize employee exposure to health hazards.

4. Develop educational materials and assist with providing training on proper safety procedures and practices.
5. Work with management to develop health programs to recognize, eliminate, and control health and safety hazards.

**Approximate Total Hours      3000**

*Apprenticeship work processes are applicable only to training curricula for apprentices in approved programs. Apprenticeship work processes have no impact on classification determinations under Article 8 or 9 of the Labor Law. For guidance regarding classification for purposes of Article 8 or 9 of the Labor Law, please refer to <https://dol.ny.gov/public-work-and-prevailing-wage>*

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**APPENDIX B**  
**RELATED INSTRUCTION**

**Safety**

1. Use of Personal Protective Equipment (PPE)
2. Fire Prevention Safety
3. First Aid and CPR (6.5 hours)
4. All Applicable OSHA, DOSH, and Department Regulations, Standards and Rules
5. Right-to-Know/Safety Data Sheets (SDS)
6. Material Safety Data Sheets (MSDS)
7. OSHA Hazard Communication Standard
8. Sexual Harassment Prevention Training – must comply with section 201-g of the Labor Law

**Trade Science**

1. OSHA Training Institute courses, as required.
2. Chemistry
3. Biology
4. Toxicology
5. Physical Space/Environment
6. Ergonomics
7. Biomechanics
8. Exposure Risks
9. Safety and Health Risks
10. Engineering and Non-Engineering Controls
11. Equipment Maintenance and Operation
12. Health Hazard Evaluation and Testing
13. Air Sampling
14. Air Ventilation Systems
15. Other OSHA/DOSH Related Training Courses, as required.
16. Other topics, as approved.

## **Trade Theory**

1. Safety and Health-Aspects of Occupations and Work Environments
2. Safety and Health Hazards
3. Industrial Processes
4. Worker Safety and Health Education
5. Hazard Communication

## **Job Skills**

1. Computer Skills
2. Verbal and Written Communication Skills
3. Time Management Skills
4. Interpersonal Relationships
5. Customer Service
6. Public Speaking Skills

144 Hours of Related Instruction are Required for Each Apprentice for Each Year.

Appendix B topics are approved by New York State Education Department.