

ET Online

*Continuing Education and Training Services
Kirkwood Community College
PO Box 2068
Cedar Rapids, Iowa 52406
1-800-464-6874*

Course Descriptions

(Updated June 1, 2010)

HAZWOPER

40 Hours (24 hours online/16 face-to-face)

This Internet-based course is a self-paced, open entry, open exit, waste site worker course that meets all the requirements of 29 CFR 1910.120, OSHA's Hazardous Waste Site Worker and Emergency Response Standard. The course consists of an online text, interactive exercises, web links, self-grading quizzes, and final exam. There are two days of face-to-face training to complete the 40 hours for Hazwoper Certification or as a stand-alone course to enhance your skills. Topics include exercises on PPE, Regulations, Site Characterization, Confined Space, Decon, etc.

HAZWOPER - MODERATE RISK

24 Hours

This Internet-based course provides 24 hours of interactive training online for those needing Moderate Risk certification (29 CFR 1910.120). The course consists of an online text, interactive exercises, web links, self-grading quizzes, and final exam.

HAZWOPER REFRESHER

8 Hours

This Internet-based course provides eight hours of interactive training online for the annual refresher to the 40-hour Hazardous Wastesite Worker course (29 CFR 1910.120). This course fulfills the requirement for both workers and supervisors.

HOUSEHOLD HAZARDOUS WASTE WORKERS

24 Hours (18 hours online/6 hours face-to-face)

This Internet-assisted class is a 24-hour Moderate Risk course for those in the solid waste field. Eighteen hours of the course are delivered over the Internet and can be taken anytime anywhere. The course includes online text, interactive exercises, web links, self-grading quizzes, final exam, and job specific hands-on training. The six hours of hands-on training has been designed for those employed at landfills, recycling centers, and household hazardous waste facilities.

HAZARDOUS MATERIALS WORKER SAFETY AWARENESS

26 Hours

This course is an Internet-based, self-paced, open-entry, open-exit, 24-hour waste site worker course meeting the requirements of 29 CFR 1910.120, OSHA's Hazardous Waste Site Worker and Emergency Response Standard. Note: This course requires a 2-hour hands-on component (lab) to be provided by the instructor.

HAZARD COMMUNICATION (HazCom/Right to Know)

1 Hour

Using the Internet, students will become familiar with OSHA's Hazard Communication Standard 29 CFR 1910.120 that requires employers to develop a written Hazard Communication Program and to inform and train employees. This course provides an overview of the standard, Material Safety Data Sheets (MSDSs), collection and retention, proper storage procedures, labeling and placarding systems, employee training, and documentation.

DOT HAZARDOUS MATERIALS TRANSPORTATION**5 Hours**

This course is designed to familiarize you with the DOT hazard communication system related safety and security issues. It will help you understand the labels, placards, shipping papers, and markings associated with the transportation of hazardous material. You will learn how to read the Hazardous Material Table and the 2000 Emergency Response Guidebook. The course includes labeling exercises, form completions, and self-tests. Students can access the DOT Regulations and the CFR through online links.

LOCKOUT/TAGOUT AWARENESS**4 Hours**

The standard requires the adoption and implementation of practices and procedures to shut down equipment, isolate it from its energy source(s), and prevent the release of potentially hazardous energy while maintenance and servicing activities are being performed. This course contains minimum performance requirements, and definitive criteria for establishing an effective program for the control of hazardous energy. It summarizes for the student key components of the standard in a question/answer format and is intended to guide the user in understanding aspects of the Lockout/Tagout standard.

MULTI-HAZARD EMERGENCY PLANNING FOR SCHOOLS (ICS 362)**8 Hours**

This course is a web-based class that focuses on multi-hazard emergency planning for schools. Those taking this class will find information on emergency management operations, roles and duties; how to assess potential hazards that schools may face; and learn how to develop and test an Emergency Operations Plan that addresses all potential hazards.

INTRODUCTION TO THE INCIDENT COMMAND SYSTEM (ICS 100)**3 Hours**

This online course provides the student the background and development of ICS. As the standard for emergency management across the country ICS is designed to be interdisciplinary and organizationally flexible. The class also goes into the application of ICS and its role as a key feature of the National Incident Management System.

INCIDENT COMMAND SYSTEM FOR SINGLE RESOURCES & INITIAL ACTION INCIDENTS (ICS 200)**3 Hours**

This online class provides the student with further information on the ICS process. The units contain information on leadership and management, delegation of authority, functional areas, postings, briefings, organizational flexibility and the transfer of command.

INCIDENT MANAGEMENT (NIMS - ICS 700)**3 Hours**

This course is designed to meet the mandate set out on February 28, 2003, by President Bush when he issued Homeland Security Presidential Directive-5. HSPD-5 directed the Secretary of

Homeland Security to develop and administer a National Incident Management System. NIMS provides a consistent nationwide template to enable all government, private-sector, and nongovernmental organizations to work together during domestic incidents.

INTRODUCTION TO THE NATIONAL RESPONSE PLAN (NRP - ICS 800)

3 Hours

The course is designed for Federal, State, local and private sector emergency management professionals. The purpose of the course is to introduce those taking the class to: describe the purpose of the NRP, locate information within the NRP, describe the roles and responsibilities of entities as specified in the NRP, identify the organizational structure used for NRP coordination, describe the field-level organizations and teams activated under the NRP, and identify the incident management activities addressed by the NRP.

INTRODUCTION TO CONTINUITY OF OPERATIONS (COOP - ICS 546)

5 Hours

This web-based course is designed for a broad audience - from senior managers to those involved directly involved in the continuity of operations (COOP) planning effort. The class provides a working knowledge of the COOP guidance found in Federal Preparedness Circular 65, "Federal Executive Branch Continuity of Operations" and provides activities to enhance your COOP program. Topics include an overview of: essential functions, delegations of authority, succession planning, alternate facilities, interoperable communications, vital records and databases and human capital.

WORKER SAFETY FOR DISASTER RESPONSE

10 Hours

This course is designed to provide workers with the knowledge, information, and basic skills to work safely at a disaster site, a natural event or man-caused incident. Those taking this course will learn how to recognize potential hazards and the need for reporting hazards identified on assigned job tasks, helping them to ensure the health and safety for themselves and others. No final exam is required.

INTRODUCTION TO MASS FATALITIES

4 Hours

This course is designed to provide the student with an overview of key issues to be addressed when developing mass fatalities response plans. It focuses on the primary functions that must be fulfilled in order to facilitate mass fatalities response and community recovery. Some of the concepts discussed in this course include: Essential Emergency Management Issues, Hazardous Materials Identification, Primary Sites of Mass Fatalities Response Operation, Headquarters Staff Processing Center, Disaster Site, Morgue Site, Family Assistance Center, and Management of Traumatic Stress. No final exam is required.

EMERGENCY RESPONSE TO TERRORISM

10 Hours

An act of terrorism can occur anywhere, at any minute, when you would least expect it. No jurisdiction, urban, suburban, or rural, is totally immune. Despite our security consciousness, if terrorists intend to wreak havoc it will be difficult to stop them. This course is designed to provide workers with the knowledge and information on how best to respond to such an attack.

ANTHRAX THREAT & RESPONSE

10 Hours

What is anthrax, why is it a terrorist agent, how can it be detected, who is at risk, when has it been used, where can I go for information? These and other questions surrounding *Bacillus anthracis* and the infection it causes are addressed in the Anthrax Module. Included is a virtual laboratory exercise to introduce sampling protocols.

SMALLPOX THREAT & RESPONSE

10 Hours

Smallpox, a disease of the past and a threat for the future, is a Category A concern for the CDC. Cause, differential diagnosis issues, containment, and mitigation issues are addressed in the Smallpox Module. Included is a virtual laboratory exercise to test your ability to trace an outbreak.

TULAREMIA AND PLAGUE THREAT & RESPONSE

10 Hours

Vector borne and endemic, these diseases are caused by bacteria harbored in the animal population and if aerosolized result in potentially deadly pneumonic infections. The role of the animals in our environment in the wake of an intentional release of these organisms is addressed along with descriptions of the bacterial agents in the Tularemia and Plague Module. Included is a virtual laboratory exercise identifying potential risks to the laboratory technician isolating these organisms for wound exudates.

BOTULISM AND OTHER FOOD-BORNE AGENTS THREAT & RESPONSE

10 Hours

Our food supply arrives daily from all over the world. What is the potential for contamination, what agents are of particular concern to the CDC and what historical data do we have on food borne infections? This module addresses a variety of organisms and microbial toxins that have been identified by the CDC as potential food-borne agents of terrorism. Included is a virtual laboratory to acquaint the student with the multitude of potential scenarios for both intentional and accidental food-borne illnesses.

AGRICULTURAL AGENTS THREAT & RESPONSE

10 Hours

In addition to the human element is the economic and psychological impact of a biological attack against the U.S. agricultural industry. Foreign animal diseases as well as encroaching plant pathogens are the focus of this module. A review of Foot-and-Mouth disease and Mad Cow Disease provide a basis for discussion of the other diseases addressed in this module. Included is a virtual laboratory tour of the European outbreak of Foot-and-Mouth disease to demonstrate the potential for widespread economic and psychological devastation among the general public as well as those directly employed in the agricultural industry.

AGRICULTURAL TERRORISM FOR FIRST RESPONDERS

6 HOURS

This Internet-based course provides six hours of online training, including an imbedded textbook, for those who would potentially be first responders to an incident of agricultural terrorism or a natural occurring agricultural crisis (e.g. Foot and Mouth or Mad Cow Disease). Students will be walked through the six steps of an effective response: Prepare, Prevent, Contain, Euthanasia, Dispose, and Recover. There is a pre- and post-test to measure students' understanding of the concepts.

TERRORISM - BIOLOGICAL AGENTS

32 Hours or 2 Credit Hours

This class is the first in a series of five courses and designed to identify the biological agents of primary concern to the Center for Disease Control and the US Department of Agriculture. The potential for release, expected epidemiology/etiology, detection, and response protocols are explored through narrated presentations and virtual laboratory exercises. A Terrorism Agent Control Technology certificate is awarded when all 5 courses in the asynchronous series are successfully completed.

TERRORISM – CHEMICAL AGENTS

32 Hours or 2 Credit Hours

This course is designed to augment a career in biology, chemistry, public health, nursing, or medical fields. Through this course the student is introduced to the various chemical agents of concern to the CDC and the USDA and the diseases they cause. HazMat response, public health intervention, containment and eradication issues, and proactive measures are also addressed.

TERRORISM – MONITORING & DETECTION

32 Hours or 2 Credit Hours

In this course the student is introduced to current technology for the detection of chemical and biological agents. Precision, accuracy, validation, specificity, sensitivity, limitations, and reliability of both field and laboratory units are addressed. It will also cover sampling requirements and protocols for both chemical and biological agents from solid, liquid and vapor samples.

TERRORISM – A PERSPECTIVE

16 Hours or 1 Credit Hours

In this online class students will gain general knowledge of the many aspects of terrorism. The units will cover terrorism from its historical origins, to modern needs of preparedness and response and the psychological implications.

TERRORISM – SECURITY & DETERENCE

32 Hours or 2 Credit Hours

Terrorism is a tactic used in warfare or a type of crime, and the same knowledge that is employed to fight crime is useful against terrorism. This class will take a very broad view at terrorism and what can be done to make a site less likely to become a target. It will delve into NIMS, NIPPS, and specific areas like schools and water infrastructure, as well as actual physical protection systems employed in securing a site.

INTEGRATED SOLID WASTE MANAGEMENT

60 Hours

Using the Internet this course will provide the student with a comprehensive look at solid waste management; combining the aspects of landfill, composting and household hazardous waste operations. This class will meet or exceed most state requirements for the educational components of certification and/or licensing required for solid waste professionals.

LANDFILL OPERATIONS

25 Hours

Using the Internet those taking this course will gain a vast array of knowledge concerning the many aspects of landfill operations. This course provides eight foundation blocks for the operator with units on waste decomposition, geology & hydrology, engineering, surveying, landfill design, landfill construction, landfill operations, and regulations. This class will meet or

exceed most state requirements for the educational components of certification and/or licensing required for solid waste professionals.

COMPOSTING OPERATIONS

25 Hours

Composting is the controlled process of organic degradation or waste decomposition. This web-based course will provide those taking the class with knowledge in the process of waste decomposition, an array of microorganisms and invertebrates consume the organics and convert them to humus. In the truest sense, solid waste composting is actually microbe farming, and like any type of farming, success has a lot to do with the farmer knowing how to make what he is raising thrive and grow. This class will meet or exceed most state requirements for the educational components of certification and/or licensing required for solid waste professionals.

WASTEWATER TREATMENT I

64 Hours or 4 Credit Hours

Using the Internet, students will explore the rudiments of wastewater treatment. This introductory course includes instruction in water pollution control, preliminary and primary treatment, fixed film processes, and suspended growth systems. Along with reading assignments from the text, the course is enhanced with up-to-date photographs, audio, interactive exercises, and online links.

WASTEWATER TREATMENT II

64 Hours or 4 Credit Hours

Using the Internet, students will focus on issues of concern to wastewater treatment facilities. The topics of this course include activated sludge process control, sludge digestion and solids handling, nitrogen and phosphorous removal, and odor control. Along with reading assignments from the text, the course is augmented with audio, photographs, interactive exercises, and online links.

WASTEWATER TREATMENT - INDUSTRIAL

64 Hours or 4 Credit Hours

Using the Internet, students will focus on issues of concern to industrial wastewater treatment facilities. The topics of this course include regulatory requirements; flow measurement; preliminary, physical and chemical treatment; filtration; and treatment of metal streams. Along with reading assignments from the text, the course is augmented with audio, photographs, interactive exercises, and online links.

WASTEWATER COLLECTION SYSTEMS

64 Hours or 4 Credit Hours

Using the Internet, students will gain a working knowledge of wastewater collection systems safety procedures, sewer inspection and testing, pipeline cleaning and maintenance, underground repair, lift stations, equipment maintenance, and sewer rehabilitation. Along with reading assignments from the text, the course is enhanced with up-to-date photographs, audio, interactive exercises, and links.

WASTEWATER ANALYSIS

48 Hours or 3 Credit Hours

Using the Internet, students will be introduced to basic laboratory safety and gravimetric, spectrophotometric, electrochemical, titrimetric, and microbiological methods. The units include instruction on the laboratory procedures for microscopic, coliform, BOD₅, COD, ammonia,

grease and oil, chlorine and solids analysis. Along with reading assignments from the text, the course is enhanced with up-to-date photographs, interactive exercises, and online links.

WATER TREATMENT I

64 Hours or 4 Credit Hours

Using the Internet, students will explore the rudiments of water treatment. The topics of this course include regulatory monitoring, iron and manganese removal, filtration, coagulation, flocculation, fluoridation, and disinfection. Along with reading assignments from the text, the course is enhanced with audio, up-to-date photographs, interactive exercises, and online links.

WATER TREATMENT II

64 Hours or 4 Credit Hours

Using the Internet, students will focus on issues of concern to surface water treatment facilities. The topics of this course include reservoir management, taste and odor control, corrosion management, softening, demineralization, and trihalomethanes. Instrumentation and sludge handling and disposal issues are also addressed. Along with reading assignments from the text, the course is augmented with audio, photographs, interactive exercises, and online links.

WATER DISTRIBUTION SYSTEMS

64 Hours or 4 Credit Hours

Using the Internet, students will obtain a working knowledge of potable water distribution systems. The topics of this course include water storage facilities, operation and maintenance of water mains, water quality issues, disinfection, and safety.

WATER ANALYSIS

48 Hours or 3 Credit Hours

Using the Internet, students will be introduced to basic laboratory safety and gravimetric, spectrophotometric, electrochemical, titrimetric and microbiological methods. The units include instruction on the procedures for regulatory sampling and safety, and specific analytical procedures for total residue, fluoride, pH, ammonia, acidity, alkalinity, calcium, chloride, hardness, and coliform analysis.

WATER/WASTEWATER - PUMPS, MAINTENANCE & SAFETY

48 Hours or 3 Credit Hours

Using the Internet, students will cover a very broad range of topics including, centrifugal pumps, selection and replacement of packing, seals, hydraulics, operating conditions, preventative maintenance, motors, plans and specifications, hazard types, plant equipment and procedures, lab safety and fire prevention, and hazard communications.

WATER/WASTEWATER - PERMITS & ADMINISTRATION

16 Hours or 1 Credit Hour

Using the Internet students will be able to improve their people skills, operations management, become more familiar with safety issues and responsibilities and the permitting and certification process.

WATER/WASTEWATER CEU COURSES

The CEU classes are the existing college credit courses broken down into individual chapters making them easier to use by the operators. These classes still contain the high quality content, audio, audio text, self-tests, quizzes, and a final exam found in the college classes. Also, the operator will still need to read the textbook when taking these courses.

One CEU is the equivalent to 10 contact hours of study.

Water Treatment	CEU Value
Coagulation & Flocculation	1
Disinfection	1.5
Filtration	1
Fluoridation	1
Iron & Manganese	.5
Quality	1
Sedimentation	1
Water Sources & Treatment	2

Water Distribution Systems	CEU Value
Distribution Facilities	.5
Storage Systems	1
System Disinfection	1
System O & M	1
System Safety	1
Valves, Mains, & Meters	1
Water Mains	1
Water Quality	.5

Wastewater Treatment	CEU Value
Disinfection & Chlorination	1
Fixed Film Process	1
Pollution Control	1
Pond Systems	1
Preliminary Treatment	1
Primary Treatment	1
Suspended Growth Systems	1

Try a sample of the online courses at www.et-online.org.