# Disaster Training Unit Course Description

<table>
<thead>
<tr>
<th>Topic:</th>
<th>Mass Casualty Decontamination – Hospital Course</th>
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<tbody>
<tr>
<td>Course Hours:</td>
<td>8</td>
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<tr>
<td>Course Description:</td>
<td>This course provides an entry level awareness and operational training in mass decontamination.</td>
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<td>Target Audience:</td>
<td>All interested hospital staff</td>
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<td>Objectives:</td>
<td>At the conclusion of this course the student will be able to:</td>
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- Describe reasons why a terrorist might use CBRN weapons
- List ways that CBRN incidents are different from an industrial Haz-mat incident
- Describe the most likely method of dissemination to be used by a terrorist
- Describe the different mechanisms that toxic substances can enter the body and cause harm
- Identify unique characteristics of a CBRN event
- Define chemical weapon
- Describe the impact of toxic chemicals as it relates to mortality and morbidity
- State the sources of harmful chemicals
- List the major categories of chemical agents as described in this class
- Define volatility and persistence and describe the effects that these concepts can have on the activities of first receivers
- Describe how a first responder/receiver might best utilize the knowledge of what toxic agents smell like
- Review normal physiological effects of the release of acetylcholine and the effects nerve agent on that process
- Describe the signs, symptoms and treatment of selected chemicals agents that might be weaponized;
  - Nerve Agents (GA, GB, GD, GF)
  - Blister Agents (H, HD, HN1, HN2, HN3, L)
  - Blood Agents (Hydrogen Cyanide (AC), Cyanogen Chloride (CK))
  - Choking Agents (Chlorine, Phosgene, Ammonia)
  - Biological Toxins (Botulism Toxin, Ricin)
- Define biological weapon
- Compare and contrast between a communicable and a non-communicable disease
- Describe some diseases/pathogens that meet these criteria, their symptoms and treatments:
  - Anthrax
  - Plague
  - Smallpox
List attributes of a pathogen that would cause it to be weaponized by a terrorist
Discuss why decontamination is usually not necessary following a biological incident
Identify indicators that a biological agent has been released in your response area
Describe the cluster of symptoms that most biological weapon agents initially create in the earliest stages of illness
Discuss why decontamination is generally not necessary following a covert biological incident
Identify actions to be taken by first responders to protect yourself in a biological incident
Describe the health care worker role as an epidemiologist
Describe how terrorists might use ionizing radiation to cause harm to people (weaponization) and the likelihood of each method
Discuss various ionizing particles and waves and their potential for harm
Describe what makes atoms “radioactive”
Differentiate between non-ionizing and ionizing radiation
Discuss various ionizing particles and waves and their potential for harm
Name a device that detects radiation
Describe the most important asset in responding to or providing aid at a radiological event
Explain the relationship of different radiation measurements and conversions
Describe the concept of background radiation
Define the term ALARA
Describe how the ALARA principle can be applied to the decon process
Describe and apply the four principles of radiation protection
Differentiate between exposure, contamination and incorporation
Describe the immediate actions of potential radiological terrorism incidents likely to result in mass casualties
Explain OSHA exposure limits and how they apply to responders/receivers
Identify the major pharmacological agents used to treat patients with radiological injury following a mass casualty radiological terrorism incident
Identify the key principles involving triage of patients with potential radiation injury (Acute Radiation Syndrome)
Describe the key components of treating patients with combined injury (trauma and radiation injury)
Identify who needs decontamination when provided a list describing “victims” arriving at a hospital
Explain what is meant by “Operations Level Requirements”
Define the term “Hazardous Vulnerability Analysis (HVA)”
Identify some of the limitations with detection equipment (slide 86)
Define Decontamination
State the three primary reasons to decontaminate
Differentiate the following types of decontamination: Emergency, Primary, Secondary and Site
County of Los Angeles Department of Health Services
Emergency Medical Services Agency
Disaster Medical Services

- Discuss the Hospital Decontamination Zone and its components
- Understand the principles of existing First Receiver decontamination systems
- Identify general safe decontamination considerations
- List some difficulties with decontamination operations
- Describe the best way to determine the effectiveness of hospital decontamination operations
- Explain the role of the Hospital Incident Command System (HICS) as it relates to decontamination operations
- Explain necessary actions once decon operations are over
- Identify types, selection and usage of PPE
- Understand the risks associated and medical considerations with the decontamination operation and wearing PPE
- Don and doff the chemical protective clothing and 3M BE-10 Powered Air Purifying Respirator (PAPR)
- Utilize PPE Level C while conducting simulated operations within the decontamination corridor