

**MIRIONSERVICES** 

## SU-903

# Basic Radiation Fundamentals First Response Training



This course is an introduction to the basics of radiation, its components, types and sources or radioactive materials. You will learn what radiation is, how it exposes personnel, where it comes from, how we measure/detect it, how it can affect you, and how to reduce the risks associated with radiation. You will also learn what some of the realistic threats are that can cause panic and harm to personnel. Included will be some hands-on practical training using detectors and common sources of radiation.

### HOW YOU WILL BENEFIT

Understanding what, where and how radiation works will give the student a greater opportunity to make field-ready decisions when encountering a radioactive source. Radiation can be a frightening subject and this class will help give students a better understanding and comfort level to deal with a radiation issue or incident. This will help improve their situational awareness when dealing with radioactive sources.

#### WHO SHOULD ATTEND

Emergency response organizations; local and federal agencies; military, health departments, government, etc.; any individuals or organizations concerned about this subject.

#### **COURSE CONTENT**

- Characteristics of Radiation
  - Myths about radiation
  - The atom
  - Radioactive decay
  - Half-life
  - Ionizing vs. non-ionizing
- Radiological Units of Measure
- Common radiological terminology and acronyms
- Natural Background Radiation Sources
- Radiation vs. Contamination
- Radiation Protection Principles
- Biological Effects
  - Modes of entry into the body
  - Doses of concern
  - Signs and symptoms of radiation sickness
  - Examples
- Potential Threats
- Hands-on Practical Use
  - How to detect radiation
  - What do the readings tell me
  - Search
- Case Studies

#### PREREQUISITES

None

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## MIRION UNIVERSITY

www.mirion.com

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