

Peoplesafe[®] 6.0—Course Syllabus

■ Lesson 1: Exploring Electromagnetic Energy

General introduction to electromagnetic energy (EME)—what it is, how it is used, how it is transmitted, and the difference between ionizing and non-ionizing radiation

[Topic 1 – Electromagnetic Energy \(EME\)](#)

Exploring waves
Characteristics of waves
Classifying waves
Using electromagnetic energy

[Topic 2 – Transmitting EME](#)

Antennas
Properties of wave transmissions
The human antenna

[Topic 3 – Ionizing vs. non-ionizing radiation](#)

Ionization
Ionizing radiation
Non-ionizing radiation
Cumulative and non-cumulative effects of ionization

■ Lesson 2: Biological Hazards

Survey of how EME (both ionizing and non-ionizing) affects the body, the physical hazards associated with EME, and how to determine the absorption rate of EME

[Topic 1 – Physical Hazards of EME](#)

Electromagnetic energy absorption
EME overexposure symptoms
Medical monitoring equipment
Other dangerous conditions

[Topic 2 – Determining Absorption Rate of EME](#)

Maximum Permissible Exposure (MPE)
EME absorption vs. frequency

■ Lesson 3: Standards, Regulations, and Compliance

Overview of the OSHA and FCC standards for maximum permissible exposure (MPE) to EME—the different levels for general population vs. occupational—and the relationship between the FCC's MPE limits and OSHA's current regulations (at both federal and state levels)

[Topic 1 – Occupational Safety](#)

OSHA state regulations
OSHA posted notices—types of posted warning signs and their meaning

[Topic 2 – Federal Communications Commission \(FCC\)](#)

FCC history
FCC regulations

■ **Lesson 4: Personal EME Safety**

Instructions on what to look for when approaching a site where EME is present (different types of signage and what each means), types of personal protective equipment available and how to use them, and recommended site visit procedures to ensure safe operations in an EME or RF environment

[Topic 1 – Training for Increased EME Awareness](#)

Importance of EME training

[Topic 2 – Personal Protective Equipment](#)

RF personal monitors

RF protective suit

[Topic 3 – Site Visit Procedures](#)

Pre-visit checklist

On site procedures

Lock-out/tag-out procedure

■ **Lesson 5: Antennas and Site Compliance**

Basic information on antennas—different antenna types and how they work—and guidelines for how to make EME sites compliant with regulations by their very design; includes real-world examples of compliant and non-compliant sites

[Topic 1 – Antenna Basics](#)

Antennas defined

Omnidirectional antennas

Yagi antennas

Corner reflector antennas

Panel antennas

Microwave antennas

Other types of antennas

[Topic 2 – Achieving Compliant Sites](#)

EME safety program

Determining total exposure

■ **Course Assessment/Exam**

Pool of 35 questions closely tied to the course material to test the students' understanding of the subject matter; a score of 75% qualifies as passing.