Training Course on Radiation Safety Awareness

Professional Development Training Course Outline

Category	Occupational Health	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Radiation Safety Awareness is an essential competency in modern workplaces, particularly in healthcare, nuclear energy, industrial radiography, and research facilities. With increasing exposure to radioactive materials and equipment, it’s critical to empower professionals with comprehensive knowledge of ionizing and non-ionizing radiation, safety protocols, and emergency procedures. Training Course on Radiation Safety Awareness is meticulously designed to align with current global radiation protection standards while integrating real-world applications and case studies to build practical, lifelong safety habits.

Through this intensive and interactive course, participants will gain actionable insights on radiation types, shielding techniques, personal protective equipment (PPE), risk assessment, and regulatory compliance. The course content uses updated learning strategies, rich media, and hands-on training simulations to ensure effective learning retention and applicability. With rising demand for qualified radiation workers, this course equips learners with the knowledge and confidence to manage radiation responsibly and ethically.

Programme Curriculum

Training Course on Radiation Safety Awareness

Introduction

Radiation Safety Awareness is an essential competency in modern workplaces, particularly in healthcare, nuclear energy, industrial radiography, and research facilities. With increasing exposure to radioactive materials and equipment, it’s critical to empower professionals with comprehensive knowledge of ionizing and non-ionizing radiation, safety protocols, and emergency procedures. Training Course on Radiation Safety Awareness is meticulously designed to align with current global radiation protection standards while integrating real-world applications and case studies to build practical, lifelong safety habits.

Through this intensive and interactive course, participants will gain actionable insights on radiation types, shielding techniques, personal protective equipment (PPE), risk assessment, and regulatory compliance. The course content uses

updated learning strategies, rich media, and hands-on training simulations to ensure effective learning retention and applicability. With rising demand for qualified radiation workers, this course equips learners with the knowledge and confidence to manage radiation responsibly and ethically.

Course Objectives

1. Understand the principles of radiation safety and ALARA (As Low As Reasonably Achievable).
2. Identify sources and types of ionizing and non-ionizing radiation.
3. Perform risk assessments in radiation-prone environments.
4. Recognize the importance of dosimetry and monitoring equipment.
5. Implement engineering and administrative radiation controls effectively.
6. Use personal protective equipment (PPE) in radiation zones.
7. Comply with international and national radiation safety regulations.
8. Handle radiological emergencies and spill containment procedures.
9. Interpret radiation signage, labels, and warning systems.
10. Understand biological effects of radiation exposure.
11. Engage in safe radioactive material handling and transport.
12. Foster a radiation safety culture in the workplace.
13. Apply learnings via real-world case studies and practical scenarios.

Target Audience

1. Radiologic Technologists
2. Medical Physicists
3. Nuclear Plant Workers
4. Industrial Radiographers
5. Research Laboratory Staff
6. Occupational Health & Safety Officers
7. Environmental Protection Professionals
8. Emergency Response Teams

Course Duration: 5 days

Course Modules

Module 1: Basics of Radiation

- Define radiation and its classification
- Differentiate between ionizing and non-ionizing radiation
- Understand natural vs man-made radiation sources
- Overview of radioactive decay and units of measurement
- Health risks from low and high radiation exposure
- **Case Study:** Comparing natural background radiation levels globally

Module 2: Principles of Radiation Protection

- Introduction to the ALARA principle
- Time, distance, and shielding strategies
- Importance of source containment
- Engineering controls in radiation areas
- Radiation safety signage and zoning
- **Case Study:** ALARA implementation in a dental radiology lab

Module 3: Dosimetry and Monitoring Tools

- Types of dosimeters and their uses

- Role of personal dosimetry in safety
- Environmental and area monitoring
- Real-time exposure tracking systems
- Record-keeping and exposure reporting
- **Case Study:** Monitoring dose levels in oncology departments

Module 4: PPE and Safe Work Practices

- Selection and use of protective gear
- Lead aprons, thyroid shields, gloves
- Safe entry and exit procedures
- Hygiene practices in radiation zones
- Decontamination protocols
- **Case Study:** PPE failure and contamination at a research facility

Module 5: Radiation Risk Assessment

- Conducting workplace risk evaluations
- Identifying exposure pathways
- Evaluating dose limits and thresholds
- Risk communication strategies
- Preventive action planning
- **Case Study:** Incident-based assessment in industrial radiography

Module 6: Regulatory Compliance and Standards

- Overview of IAEA, NRC, and OSHA regulations
- Licensing and certification procedures
- Legal obligations of radiation workers
- Record audit and inspection readiness
- Radiation transport laws and labeling
- **Case Study:** Non-compliance fines in a medical imaging clinic

Module 7: Emergency Preparedness and Spill Management

- Emergency response protocols
- Evacuation and isolation zones
- Spill containment strategies
- Medical treatment for radiation exposure
- Post-incident debriefing and learning
- **Case Study:** Radiation leak and recovery at a nuclear lab

Module 8: Creating a Culture of Radiation Safety

- Training and continual learning
- Role of radiation safety officers (RSOs)
- Reporting unsafe practices
- Team communication and support systems
- Motivating behavioral change
- **Case Study:** Culture shift success at a cancer treatment center

Training Methodology

- Instructor-led live online sessions
- Interactive video simulations and animations
- Group discussions and Q&A forums

- Real-world scenario-based learning
- End-of-module quizzes and a final assessment
- Downloadable reference materials and guides

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

Register Online Now

Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com