



# CERTIFICATE OF COMPLETION

This is to certify that

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has completed an on-line e-learning course on

**Radiation Basics and Consequences of Exposure to Radiation**

on the IAEA's Learning Management System

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# Radiation Basics and Consequences of Exposure to Radiation

## Subtopics

1. Radiation Basics
2. Ionizing Radiation
3. Radiation Effects and Risks of Exposure
4. Use of Radioactive Sources and Devices
5. Basics of Practical Protection

## Learning Objectives

- 1.1 Recognize common types and sources of radiation
- 1.2 Describe the components of the atom
- 1.3 Identify conditions that make an atom radioactive
- 1.4 Describe quantities of radioactive material and units of radioactivity
- 1.5 Define half-life
- 2.1 Identify the types of ionizing radiation
- 2.2 Distinguish between natural and artificial sources of ionizing radiation
- 3.1 Compare external and internal radiation exposure
- 3.2 Discuss the effects of ionizing radiation
- 3.3 Define deterministic and stochastic health effects
- 3.4 Recognize biological effects and risks of exposure to ionizing radiation
- 4.1 Discuss uses of radioactive sources and devices
- 5.1 Describe measures to protect against external exposure
- 5.2 Describe measures to protect against internal exposure
- 5.3 Identify the designation of areas in protecting against radiation exposure