

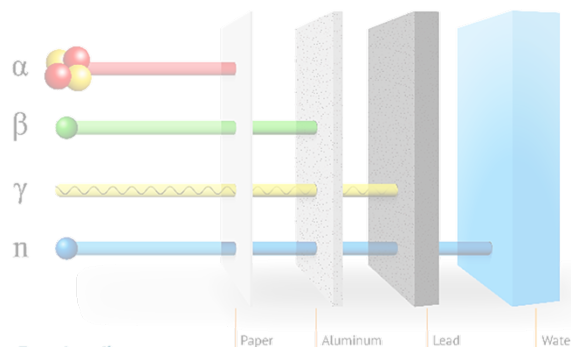
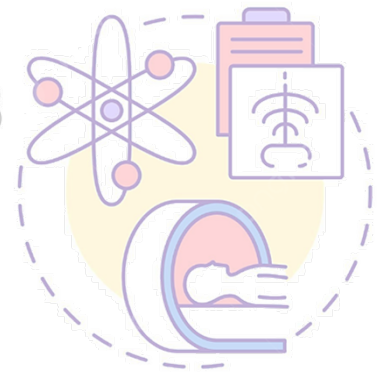
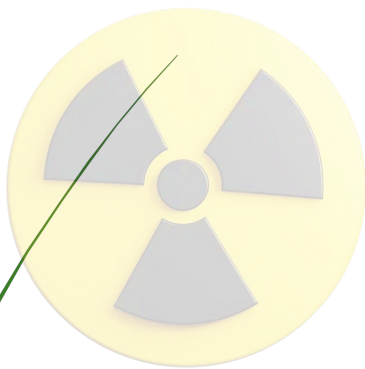
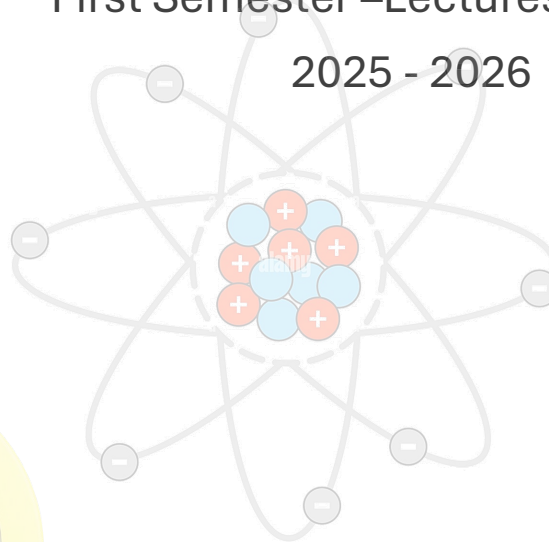


Radiation Protection

The Second Stage

First Semester –Lectures No. 7,8,9

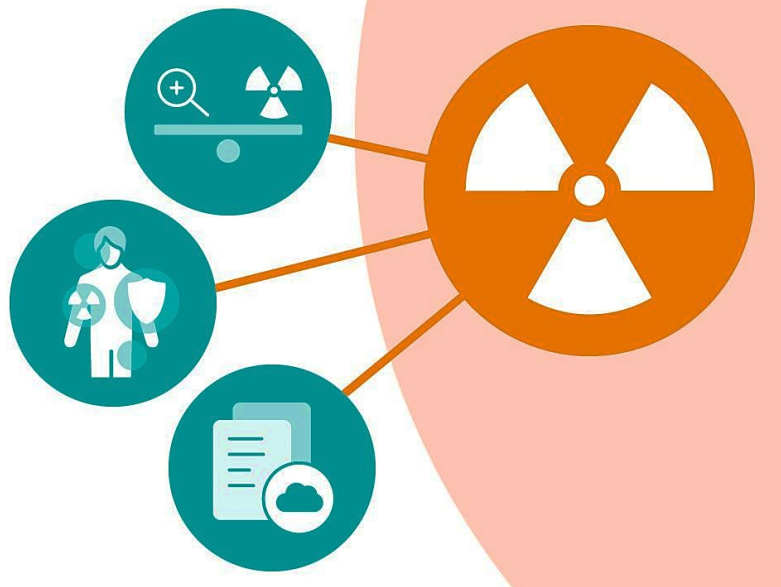
2025 - 2026



Asses. Prof.: Mahmoud Abdelhafez Kenawy

**Radiation Hazards
Radiation Measurements
Devices & Detectors**

Radiation Hazards



OUTLINES:

❖ Radiation Hazard Evaluation Devices.

✓ Area Monitoring Devices.

➤ Personnel Monitoring Devices.





◆ Types of personal dosimeter

A. Modern types “Electronic personal dosimeter”

1) Pocket Dosimeter

Pocket dosimeters are used to provide the wearer with an immediate reading of his or her exposure to x-rays and gamma rays. As the name implies, they are commonly worn in the pocket. The two types commonly used in industrial radiography are the Direct Read Pocket Dosimeter and the Digital Electronic Dosimeter.

a) Direct Read Pocket Dosimeter

A direct reading pocket ionization dosimeter is generally of the size and shape of a fountain pen. The dosimeter contains a small ionization chamber with a volume of approximately two milliliters.

Inside the ionization chamber is a central wire anode, and attached to this wire anode is a metal coated quartz fiber.

