



Jordan University of Science and Technology
Faculty of Applied Medical Sciences
Radiologic Technology Department

RA202 Introduction To Radiation Biology & Radiation Protection

Second Semester 2022-2023

Course Catalog

3 Credit Hours. This course includes principle of radiological biology and radiation protection. The course will provide the theoretical background necessary for the radiological protection requirements of both ionizing and non-ionizing radiations used in hospitals.

Text Book

Title	Radiation protection in medical radiography
Author(s)	Statkiewicz-Sherer, Mary Alice, 1945- Visconti, Paula J. JT.AUTH. Ritenour, E. Russell, 1953- JT.AUTH.
Edition	6th Edition
Short Name	1
Other Information	

Instructor

Name	Prof. Khalaf Al-Masaid
Office Location	PH3 L1
Office Hours	
Email	khalaf@just.edu.jo

Class Schedule & Room

Section 1:
Lecture Time: Mon, Wed : 13:00 - 14:30
Room: M4202

Teaching Assistant

Prerequisites		
Line Number	Course Name	Prerequisite Type
141020	RA102 Introduction To Radiologic Technology	Prerequisite / Study

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Understand the basics of the radiation protection.	From 1
Week 2	Interaction of X ray with matter	From 1
Week 3	Interaction of X ray with matter 2	From 1
Week 4	Identify radiation units.	From 1
Week 5	Understand the cellular biology	From 1
Week 6	Understand the cellular biology	From 1
Week 7	Acute and chronic radiation effect	From 1
Week 8	Acute and chronic radiation effect 2	From 1
Week 9	Systematic effects of radiation	From 1
Week 10	Dose limits of radiation exposure	From 1
Week 11	Equipment of radiation protection	From 1
Week 12	Management of patient radiation dose 1	From 1
Week 13	Radiation and isotopes	From 1
Week 14	Management of patient radiation dose 2	From 1
Week 15	Exercises	From 1
Week 16	Revision	From 1

Mapping of Course Outcomes to Program Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
1. Understand the basics of the radiation protection	20%	
2. Interaction of X ray with matter	20%	
3. Identify radiation units	20%	
4. Understand the cellular biology	20%	
5. Management of patient radiation dose	20%	

