

**Vocational School / Medical Documentation and Secretariat**  
**2022 - 2023 Academic Year**  
**RADIATION PROTECTION**  
**Syllabus**

<b>Course Description</b>					
<b>Name</b>	<b>Code</b>	<b>Semester</b>	<b>T+A Hour</b>	<b>Credit</b>	<b>ECTS</b>
RADIATION PROTECTION	TDS1112350	Fall Semester	2+0	2	2
<b>Prerequisites Courses</b>					
<b>Recommended Elective Courses</b>	None				
<b>Language of Instruction</b>	Turkish				
<b>Course Level</b>	Short Cycle (Associate's Degree)				
<b>Course Type</b>	Elective				
<b>Course Coordinator</b>	Assist.Prof. Mustafa ÇAĞLAR				
<b>Name of Lecturer(s)</b>	Assist.Prof. Mustafa ÇAĞLAR				
<b>Assistant(s)</b>					
<b>Aim</b>	To gain knowledge and develop skills in the basic concept of mechanics and radiation				
<b>Course Content</b>	This course contains; Definition of Radiation and Its Types, Radioactivity, Radiation Units and Radiation Measurement Methods, Basic Principles in Radiation Protection, Biological Effects of Radiation, Radiation Protection Systems, Dose Constraints, Pregnancy and Radiation Protection, Duties and Responsibilities of Radiation Protection Committee in Hospitals, Radiation Protection in Radiotherapy and Radiology, Whole Body and Organ Dose Constraints, Legal Regulations About Radioactive Wastes, Legal Obligations about Radiation Accidents, Emergency Procedures.				
<b>Course Learning Outcomes</b>			<b>Teaching Methods</b>	<b>Assessment Methods</b>	
1. Obtains information about historical development of radiation			1, 2, 3	A	
2. Recognizes biological effects of radiation			1, 2, 3	A	
2.1 Understands acute and chronic effects of radiation			1, 15, 2	A	
3. Recognizes detectors are used to measure			1, 15, 2, 3	A	
4. Learns radiation units			1, 2, 3	A	
4.1 Accounts risk problems on radiation			1, 15, 3	A	
5. Explains collection of radiation's waste			1, 12, 2, 3	A	
5.1 Learns radiation shielding.			1, 2, 3	A	
<b>Teaching Methods</b>	1: Lecture, 12: Case study, 15: Problem solving, 2: Question - Answer, 3: Discussion				
<b>Assessment Methods</b>	A: Written Exam				
<b>Lecture Schedule</b>					
<b>Sequence</b>	<b>Topics</b>	<b>Preliminary Preparation</b>			
1	Definition of Radiation and Its Types				
2	Radioactivity				
3	Radiation Units and Radiation Measurement Methods				
4	Basic Principles in Radiation Protection				
5	Biological Effects of Radiation				
6	Radiation Protection Systems				
7	Dose Constraints				
8	Pregnancy and Radiation Protection				
9	Duties and Responsibilities of Radiation Protection Committee in Hospitals				
10	Radiation Protection in Radiotherapy and Radiology				
11	Whole Body and Organ Dose Constraints				
12	Legal Regulations About Radioactive Wastes				
13	Legal Obligations about Radiation Accidents				
14	Emergency Procedures				
<b>Evaluation Methods</b>		<b>Weight(%)</b>			
Midterm Exam		40			
General Exam		60			

<b>Resources</b>
Powerpoint notes will be given to students. Nuclear Medicine Physics and Clinical Applications