

Vocational School / Child Development
2022 - 2023 Academic Year
RADIATION PROTECTION
Syllabus

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
RADIATION PROTECTION	ÇCG1112350	Fall Semester	2+0	2	2
Prerequisites Courses					
Recommended Elective Courses	None				
Language of Instruction	Turkish				
Course Level	Short Cycle (Associate's Degree)				
Course Type	Elective				
Course Coordinator	Assist.Prof. Mustafa ÇAĞLAR				
Name of Lecturer(s)	Assist.Prof. Mustafa ÇAĞLAR				
Assistant(s)					
Aim	To gain knowledge and develop skills in the basic concept of mechanics and radiation				
Course Content	This course contains; Definition of Radiation and Its Types,Radioactivity,Radiation Units and Radiation Measurement Medtods,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.				
Course Learning Outcomes			Teaching Methods	Assessment Methods	
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 dedectors 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	
Teaching Methods	1: Lecture, 12: Case study, 15: Problem solving, 2: Question - Answer, 3: Discussion				
Assessment Methods	A: Written Exam				
Lecture Schedule					
Sequenc e	Topics	Preliminary Preparation			
1	Definition of Radiation and Its Types				
2	Radioactivity				
3	Radiation Units and Radiation Measurement Medtods				
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				
Evaluation Methods		Weight(%)			
Midterm Exam		40			
General Exam		60			

Resources
Powerpoint notes will be given to students.Nuclear Medicine Physics and Clinical Applications