

COURSE DESCRIPTION FORM			
Course Code and Name	DHF 5521 Effects of Ionizing and Non-Ionizing Radiation		
Course Semester	9		
Catalogue Data of the Course (Course Content)	Identification of ionizing and non-ionizing radiation and their effects on humans		
Course Textbooks	-E Eğilmez. Tıpta radyasyon ve korunma. Pelikan yayınları. 2009. -Harorlı A, Akgül H M, Dağistan S. Diş Hekimliği Radyolojisi. Atatürk Üniversitesi Yayınları. Erzurum, 2006.		
Supplementary Textbooks	-White SC, Pharoah MJ. Oral Radiology. PrinciplesandInterpretation.MosbyElsevier, St. Louis, Missouri, 2014.		
Credit (ECTS)	3		
Prerequisites for the Course (Attendance Requirements)	There is no prerequisite for this course. Attendance is mandatory.		
Course Type	Vocational/Technical Elective Course		
Language of Instruction	Turkish		
Course Objectives	To learn ionizing and non-ionizing radiation sources and their effects on humans.		
Course Learning Outcomes	1. Defines radiation 2. Knows the terms of ionizing and non-ionizing radiation 3. Knows ionizing and non-ionizing radiation sources 4. Knows the effects of ionizing and non-ionizing radiation on humans		
Instruction Method (Face-to-face, Distance education etc.)	This course is conducted only in the form of face-to-face.		
Weekly Schedule of the Course	Week 1: Definition of radiation Week 2: Basic radiation physics Week 3: Ionizing and non-ionizing radiation sources Week 4: Radiation measuring devices Week 5: Radiation and ionization Week 6: Natural radiation Week 7: Artificial radiation 8.Week: Non-ionizing radiation and electromagnetic fields Week 9: Dose measurement-estimation methods based on radiological examinations in humans Week 10: Dose measurement-estimation methods based on radiological examinations in humans Week 11: Effects of ionizing radiation on humans Week 12: Effects of ionizing radiation on humans Week 13: Effects of non-ionizing radiation on humans Week 14: Effects of non-ionizing radiation on humans		
Teaching Activities (The time spent for the activities listed here will determine the amount of credit required)	Weekly theoretical course hours 2 hours 1 4 weeks Weekly practical course hours 1 hour 14 weeks Reading activities 2 hours 3 weeks Internet search and library work 2 hours 4 weeks Preparing presentations 2 hours 3 weeks Making presentations 1 hour 1 week Midterm and revision for midterm 2 hours 3 weeks Final exam and revision for final exam 2 hours 3 weeks		
Assessment Criteria		Number(s)	Weight (%)
	Midterm exam	1	60
	Assignment		
	Application		

	Project						
	Practice						
	Quiz						
	Final exam	1		40			
	Total	2		100			
Workload of the Course	Activity	Number of Weeks	Duration (Weekly Hour)	End of Semester Total Workload			
	Weekly theoretical course hours	14	2	28			
	Weekly practical course hours	14	1	14			
	Reading activities	3	2	6			
	Internet search and library work	4	2	8			
	Designing and implementing materials	0	0	0			
	Making a report	0	0	0			
	Preparing presentations	3	2	6			
	Making presentations	1	1	1			
	Midterm and revision for midterm	3	2	6			
	Final exam and revision for final exam	3	2	6			
	Total workload			75			
	Total workload/ 25			3,0			
	Course Credit (ECTS)			3			
Contribution Level between Course Outcomes and Program Outcomes	No	Program Outcomes	1	2	3	4	5
	1	Knows the normal structure and functions of the human body and specifically the structures and teeth in the mouth area on the basis of cells, tissues, organs and systems, and their interactions with each other.		X			
	2	Defines the causes and formation mechanisms of oral, dental and jaw diseases, the findings they cause, structure and function disorders and how they affect the organism.		X			
	3	Knows, comprehends, relates and evaluates the symptoms and findings in the national core education program of Dentistry and the Extended Education Program of Gazi University Faculty of Dentistry, diseases and conditions and professional practices at a determined level.		X			
	4	Knows how to reach the best current scientific evidence, evaluate its reliability and validity in line with personal learning needs.			X		
	5	Knows the legislation on professional legal responsibilities, deontology and ethical principles.			X		
	6	Knows and makes professional practices in the National Core Education Program of Dentistry and the Extended Education Program of Gazi University Faculty of Dentistry at the specified level.	X				
	7	It carries out diagnosis, treatment and follow-up processes by prioritizing evidence-based practice, critical thinking and ethical principles.			X		
	8	She/he is aware of her/his limitations, sets personal learning goals to support her		X			

		professional development, and directs the patient to the appropriate center when necessary.					
	9	Knows the incidence of diseases in the mouth, teeth and jaws in society, contributes to the prevention and reduction.		X			
	10	While practicing her/his profession independently, she/he acts in accordance with the laws, regulations, legislation and ethical principles related to her duties and responsibilities.			X		
	11	Has teamwork and leadership skills, becomes a role model to colleagues and society.		X			
	12	She/he plans her/his personal professional development and realizes it with the principle of lifelong learning.			X		
	13	Establishes effective written and verbal communication with the patient, patient relatives, other health personnel, society, relevant sectors and the media.		X			
	14	Follows the innovations in her/his profession by using foreign language and information communication technologies.			X		
Lecturer(s) and Contact Information	Lecturer's First/Last Name: 1. Prof. Dr. İlkyay Peker 2. Prof. Dr. Zühre Akarşlan E-mail address: drilkaypeker@gmail.com dtzuhre@yahoo.com						