BASIC RADIOBIOLOGY										
1	Course Title:	BASIC F	RADIOBIOLOGY							
2	Course Code:	TRF5009								
3	Type of Course:	Compuls	sory							
4	Level of Course:	Second Cycle								
5	Year of Study:	1								
6	Semester:	1								
7	ECTS Credits Allocated:	2.00								
8	Theoretical (hour/week):	1.00								
9	Practice (hour/week):	0.00								
10	Laboratory (hour/week):	0								
11	Prerequisites:									
12	Language:	Turkish								
13	Mode of Delivery:	Face to face								
14	Course Coordinator:	Doç. Dr. Sibel KAHRAMAN ÇETİNTAŞ								
15	Course Lecturers:	Doç.Dr. Sibel ÇETİNTAŞ								
		Doç. Dr. Meral KURT Doc Dr. Sürreva SARIHAN								
		Doc.Dr. Candan Demiröz ABAKAY								
16	Contact information of the Course	02242953441								
	Coordinator:	skahraman@uludag.edu.tr								
17	Website:									
18	Objective of the Course:	Effects of ionizing radiation on living matter, mechanisms of action in this regard can teach at a cellular level description of radiobiology, the objectives, the importance of radiation to adopt to radiation oncology								
19	Contribution of the Course to Professional Development:									
20	Learning Outcomes:									
		1	Making the definition of radiobiology							
		2	Echelons of the events and to know what caused effects of ionizing radiation on living matter							
		3	DNA structure, and radiation are the effects on cell proliferation and cell cycle, cell cycle phases to know the relationship between radiation sensitivity							
		4	Factors affecting the biological response of normal and neoplastic tissues to prevent radiation							
		5	Define the types of radiation damage to living cell formed by the general							
		6	What is radiation-induced acute and late side effects and understand their reasons							
		7	Understand radiobiology basis and purpose of fractionation							
		8	Knowing the genetic effects of radiation caused by, to have information about cancers caused by radiation							
		9	Fraksiyonasyona response factors affecting the tissues that respond to radiation, the late and early to know the relationship between the fractionation							
		10	to understand the difference between Radyosensitivity and the radiocurability, to know the factors increasing and decreasing radiation response							

21	Course Content:														
	Course Content:														
Week	Theoretical		Ρ	ractice											
1	Introduction to radiobiology														
2	Physics and chemistry of radiation at	osorption													
3	Normal Tissue and Tumor Growth Ki	netics	Γ												
4	Cell survival curves, radiation sensitiv	vity,													
5	Radiation damage repair and the dos effects	se rate													
6	Oxygen effect, reoxygenation														
7	Dose-response relationships in norm tissues and clinical response	al													
8	Radiation therapy doses, time and th fractionation	е													
9	Alternative modalities of radiation, hyperthermia and photodynamic ther	ару													
10	Radio protectors , radio sensitizers a bio reductive agents	nd the													
11	Side effects of whole body irradiation	Ì													
12	LET - RBE														
13	Genetic effects of radiation														
Activit	IEarly and late effects in normal tissue :es	20	<b>_</b>	Number	Duration (hour)	Total Work Load (hour)									
Theore	tical		A	nonymous. Internation Ind Measurements, Rer	al Comission on Ra	diation Units Recording and									
Practic	als/Labs			0	0.00	0.00									
Self stu	dy and preperation		N	ang CH, and Willis DL	2.00 . Radiation Method	2800 in									
Homew	vorks			0	0.00	0.00									
Project	8		Y	ayınları		0.00									
Field S	tudies			0	0.00	0.00									
Midtern	n exams			0	0.00	0.00									
Others				0	0.00	0.00									
Fieraldel	XEARENING ACTIVITIES	NUMBE	W	ÉIGHT	20.00	20.00									
Total W	Vork Load	177	177			62.00									
Total w	ork load/ 30 hr	0	0	00		2.07									
ECTS (	Credit of the Course	10	ю.	00		2.00									
Final E	xam	1	1(	00.00											
Total		1	100.00												
Contrib	ution of Term (Year) Learning Activitie	es to	0	0.00											
Succes	ss Grade														
Contrib	ution of Final Exam to Success Grade	Э	1(	100.00											
Total			1(	100.00											
Measu Course	rement and Evaluation Techniques Us	sed in the													
24	ECTS / WORK LOAD TABLE				24 ECTS / WORK LOAD TABLE										

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ1 0	PQ11	PQ12	PQ1 3	PQ14	PQ15	PQ16
ÖK1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contrib ution Level:	Contrib 1 very low ution Level:		2 low			3 Medium			4 High			5 Very High				