

RADIOBIOLOGY

1	Course Title:	RADIOBIOLOGY
2	Course Code:	BYL4099
3	Type of Course:	Optional
4	Level of Course:	First Cycle
5	Year of Study:	4
6	Semester:	7
7	ECTS Credits Allocated:	4.00
8	Theoretical (hour/week):	2.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. NİLÜFER ÇİNKILIÇ
15	Course Lecturers:	Prof. Dr. Nilüfer ÇİNKILIÇ
16	Contact information of the Course Coordinator:	<p>Uludağ Üniversitesi Fen-Edebiyat Fakültesi Biyoloji Bölümü Görükle Kampüsü, Nilüfer/BURSA 16059 e-posta: aydemirn@uludag.edu.tr Telefon: 0 224 294 17 97</p> <p>Uludag University Faculty of Arts and Science Department of Biology Gorukle Campus, Nilufer/BURSA 16059 e-mail: aydemirn@uludag.edu.tr Phone: 0 224 294 17 97</p>
17	Website:	
18	Objective of the Course:	The aim of the course to teach the radiation biology.
19	Contribution of the Course to Professional Development:	It contributes that the student of the Department of Biology has a basic knowledge about radiation and the damages it causes.
20	Learning Outcomes:	
	1	To have information regarding the classification of living things and their structural and molecular properties
	2	To analyze experiment and observation results analytically and draw conclusions
	3	To earn the skills to transfer information clearly and understandably
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21	Course Content:	
	Course Content:	
Week	Theoretical	Practice

1	Interaction between radiation and matter	
2	Molecular effects of radiation, cell killing effect	
3	Damage repair, cell survival methods, effect of oxygen, chemical and biological regulators	
4	Cell kinetics and tumor cell death	
5	Early and late respond in normal tissues	
6	Clinical application of radiotherapy	
7	Protons, neutrons and pions	
8	Natural source of radiation	
9	Radiation with human origin, genetics and somatic risks	
10	Risks for low level exposure to radiation, critical organs	
11	Radioprotection procedures	
12	Limit levels	
13	Open and closed radiation sources	
14	Outer sources of radiation	

22	Textbooks, References and/or Other Materials:	İstanbul Üniversitesi Yayınları, Radyobioloji Ders Kitabı.
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23	Assesment
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TERM I LEARNING ACTIVITIES	NUMBE	WEIGHT		
Activites		Number	Duration (hour)	Total Work Load (hour)
Theoretical		14		
Home Work-project	0	0.00	2.00	28.00
Practicals/Labs		0	0.00	0.00
Self study and preperation	2	14	2.00	28.00
Total		100.00		
Homeworks		14	3.00	42.00
Projects Grade		5	5.00	25.00
Field Studies		0	0.00	0.00
Midterm exams		1	1.00	1.00
Total		100.00		
Others		0	0.00	0.00
Course Exams		test method	1.00	1.00
Total Work Load				126.00
Total work load/ 30 hr				4.17
ECTS Credit of the Course				4.00

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
ÖK3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																

Contribution Level:	1 very low	2 low	3 Medium	4 High	5 Very High
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