	ONCOGENE	ES AN	D CARCINOGENESIS						
1	Course Title:	ONCOG	ENES AND CARCINOGENESIS						
2	Course Code:	BIO5209							
3	Type of Course:	Optional							
4	Level of Course:	Second	Cycle						
5	Year of Study:	1							
6	Semester:	1							
7	ECTS Credits Allocated:	6.00							
8	Theoretical (hour/week):	3.00							
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:								
16	Contact information of the Course Coordinator:	aydemirn@uludag.edu.tr 0.224.2941797 Fen-Edebiyat Fakültesi, Biyoloji Bölümü, Görükle Kampüsü, 16059 Bursa							
17	Website:								
18	Objective of the Course:		enesis process.						
19	Contribution of the Course to Professional Development:								
20	Learning Outcomes:								
		1	To learn structural, molecular characteristics of living things						
		2	To be qualified for obtaining, interpreting and publishing of the scientific data and considering ethical and scientific values in all participated activities.						
		3	Having the ability to communicate and discuss ideas in verbal and written forms systematically with colleagues in national and international platforms.						
		4	To offer a readily understandable exploration of the basic chemistry and biochemistry of chemical carcinogenesis						
		5	Detecting the problems related with biology, constructing hypothesis to solve these problems and developing the hypothesis by using various observational and experimental methods						
		6	Improving the current and advanced knowledge from the biology field by implementing the qualities gained from Master's education						
		7	To specialize in certain areas of biology and to be able to plan, produce and evaluate the results of a thesis						
		8							
		9							
		10							
21	Course Content:								

	Course Content:																	
Week	Theoretical								Pr	Practice								
1	Oncogenes, determination and classification																	
2	Oncogenes and their effects on cell cycle																	
3	Oncogenes and carcinogenic effects																	
4	Oncoproteins and effects																	
5	Tumo	or su	ppres	ssor g	enes a	and cla	ssifica	ation										
6	Tumor supressor genes and cancer inducing effects																	
7	Multistep structure of carcinogenesis																	
8	Tumor progression																	
9	Metastasis and effects																	
10	Tumor progression pattern: colon cancer																	
11	Environmental causes of cancer																	
12	Carcinogens and human exposure																	
13	Chemical carcinogenesis and chemoprevention																	
14	Mixture complex of chemical carcinogens																	
22	Texth	nook	s Re	ferenc	es an	d/or O	ther		M	olecula	r Carci	inogene	sis and	l the M	olecula	r Biology	/ of	
	Textbooks, References and/or Other Materials:							Hu	Molecular Carcinogenesis and the Molecular Biology of Human Cancer, David Warshawsky; Joseph R. Landolph Jr. Taylor and Francis									
Activit	Activites								Numb	ber		Dura	Duration (hour)			Total Work Load (hour)		
Nidtore	nidaxar	m					1		30	1940			3.00			42.00		
Practica	als/La	bs							-	0				0.00			0.00	
Semen	NCR/ Kanfi	<i>Addie</i>	e bera	ation			1		20	190			3.00			42.00		
Homew		<u> </u>	<u> </u>							1				40.00			40.00	
<b>萨哈哈</b>	s						3		10	109.00			10.00			50.00		
Field St										0				0.00			0.00	
Midtern	n exar	ns ns								1			20.00			20.00		
Others				<u> </u>	-	-				10			2.00			20.00		
FRIA E	xams								10	100.00				1	25.00			
Total W	Work Load															239.00		
Course Total w	Se Hwork load/ 30 hr LECTS / MORK LOAD TABLE												-			7.97		
ECTS (	Credit of the Course														6.00			
25		CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS																
	P	Q1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ1 0	PQ11	PQ12	PQ1 3	PQ14	PQ15	PQ16	
ÖK1	3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ÖK2	0		4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ÖK3	0		0	4	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
LO: Learning Objectives PQ: Program Qualifications																
Contrib ution Level:	ution				2 low	3 Medium			4 High			5 Very High				