BIOMEDICAL APPLICATIONS OF HYDROGELS								
1	Course Title:	BIOMED	ICAL APPLICATIONS OF HYDROGELS					
2	Course Code:	BYM6005						
3	Type of Course:	Optional						
4	Level of Course:	Third Cy	cle					
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 f	ace					
14	Course Coordinator:	Prof. Dr.	Bilgen Osman					
15	Course Lecturers:	Prof. Dr.	Esra Karaca					
16	Contact information of the Course Coordinator:	Prof. Dr. Bilgen Osman bilgeno@uludag.edu.tr 0 224 294 17 35 Uludağ Üniversitesi Fen-Edebiyat Fakültesi Kimya Bölümü, Görükle/BURSA 16059						
17	Website:							
18	Objective of the Course:	To teach the properties and application areas of hydrogels						
19	Contribution of the Course to Professional Development:	To have knowledge about hydrogels and their biomedical applications						
20	Learning Outcomes:							
		1	Knows the general properties of hydrogels					
		2	Learns the natural and synthetic polymer used as a hydrogel					
		3	Understands the basic properties of hydrogels that respond to different stimuli.					
		4	Recognize biomedical applications using hydrogels					
		5						
		6						
		7						
		8						
		9						
		10						
21	T-1							
		Co	ourse Content:					
	Theoretical		Practice					
1	Basic properties and classification of hydrogels							
2	Natural polymer-based hydrogels							
3	Synthetic polymer based hydrogels							
4	Temperature sensitive hydrogels							

<u> </u>	pi i sei	Silive II	yuroge	#15													
6	Glucose sensitive hydrogels																
7	Antigen sensitive hydrogels																
8	Conductive polymer-based hydrogels																
9	Supera	Superadsorbent hybrid hydrogels															
10	Hydrog	Hydrogels as contact lenses															
11	Hydrog	Hydrogels as a wound dressing															
12	Hydrog	Hydrogels in drug delivery															
13	Hydrogels in tissue engineering																
14	Hydrog	els in h	ygiene	prod	ucts												
22								Biomedical Applications of Hydrogels Handbook, Springer New York Dordrecht Heidelberg London									
23																	
	R					NUMBE R	W	WEIGHT									
	n Exam					1		_	0.00								
Quiz						C			.00								
	work-pro	oject				C		_	0.00								
Final E	Exam 1						60	60.00									
Total	ral 2						10	100.00									
Activites							Number Duration (hour) Total World Load (hour)										
Tbea re	tical							1(100400			3.00	3.00			42.00	
Practic	acticals/Labs							0 0.00 0.00									
Selfise	f'stdy and preperation								14 5.00 70.00			70.00					
Homew	meworks								0 0.00				0.00				
Project									0			0.00			0.00		
Field S	d Studies								0			0.00	0.00			0.00	
Midtern	erm exams								1			15.00			15.00		
Others									3			10.00			30.00		
Final E	Exams								1			20.00			20.00		
Total W	Vork Loa	ad													177.00		
Total w	ork load	d/ 30 hr													5.90		
ECTS (S Credit of the Course						6.00					6.00					
25																	
	PG	1 PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ	B PQ9	PQ1	PQ11	PQ12	PQ1	PQ14	PQ15	PQ16	
ÖK1	0	0	4	4	4	0	0	0	0	0	0	0	0	0	0	0	
ÖK2	0	0	4	4	4	0	0	0	0	0	0	0	0	0	0	0	
ÖK3	0	0	4	4	4	0	0	0	0	0	0	0	0	0	0	0	
ÖK4	0	0	3	3	3	0	0	0	0	0	0	0	0	0	0	0	
		•	LO: L	earr	ning C	bje	ctives	5	PQ: P	rogra	m Qu	alifica	tions	<u> </u>	1.0	•	

pH sensitive hydrogels

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