



<b>COURSE: Introduction to Biomaterials</b>		
<b>DEGREE: Biomedical Engineering</b>	<b>YEAR: 2017/2018</b>	<b>TERM: 2</b>

WEEKLY PLANNING									
WEEK	SESSION	DESCRIPTION	GROUPS (mark X)		SPECIAL ROOM FOR SESSION (Computer class room, audio-visual class room)	Indicate YES/NO If the session needs 2 teachers	WEEKLY PROGRAMMING FOR STUDENT		
			LECTURES	SEMINARS			DESCRIPTION	CLASS HOURS	HOMEWORK HOURS (Max. 7h week)
1	1	Introduction to Biomaterials. Basic concepts	X				Reading of proposed topics. Bibliographic research	1.6	6
1	2	Polymers for biomedical applications	X				Reading of proposed topics. Bibliographic research	1.6	
2	3	Hydrogels for biomedical application	X				Reading of proposed topics. Bibliographic research	1.6	6
2	4	Presentation and discussion of some practical examples, problems and articles		X				1.6	
3	5	Bioceramics	X				Reading of proposed topics. Bibliographic research	1.6	6
3	6	Presentation and discussion of some practical examples, problems and articles		X				1.6	
4	7	Surface modification of biomaterials	X				Reading of proposed topics.	1.6	6

							Bibliographic research		
4	8	Presentation and discussion of some practical examples, problems and articles		X				1.6	
5	9	Designing biomaterials for 3D printing	X				Reading of proposed topics. Bibliographic research	1.6	6
5	10	Presentation and discussion of some practical examples, problems and articles		X				1.6	
6	11	<b>CONTINUOUS EVALUATION: TEST</b>						1.6	
6	12	Biomaterial degradation I	X				Reading of proposed topics. Bibliographic research	1.6	6
7	13	Biomaterial degradation II	X				Reading of proposed topics. Bibliographic research	1.6	6
7	14	Presentation and discussion of some practical examples, problems and articles		X				1.6	
8	15	Extracellular matrix-based biomaterials	X				Reading of proposed topics. Bibliographic research	1.6	6
8	16	Presentation and discussion of some practical examples, problems and articles		X				1.6	
9	17	Wound healing and the presence of biomaterials	X				Reading of proposed topics. Bibliographic research	1.6	6
9	18	Presentation and discussion of some practical examples, problems and articles		X				1.6	
10	19	Bioentrepreneurship: Product development					Invited lecture	1.6	
10	20	Immune response to biomaterials. Tumorigenesis and calcification of biomaterials	X				Reading of proposed topics. Bibliographic research	1.6	6
11	21	<b>CONTINUOUS EVALUATION: TEST</b>						1.6	
11	22	Biofilms. Approaches to control/prevent biomaterial-related biofilm infections	X				Reading of proposed topics. Bibliographic research	1.6	6
12	23	Presentation and discussion of some practical examples, problems and articles		X				1.6	6
12	24	Blood-biomaterial interactions	X				Reading of proposed topics. Bibliographic research	1.6	
13	25	Scientific paper presentation by students		X				1.6	
13	26	Presentation and discussion of some practical examples, problems and articles		X				1.6	6
14	27	Scientific paper presentation by students		X				1.6	6

14	28	Scientific paper presentation by students		X				1.6	
15	29	Scientific paper presentation by students		X				1.6	3
<b>Subtotal 1</b>								<b>46.4</b>	<b>87</b>
<b>Total 1</b> ( <i>Hours of class plus student homework hours between weeks 1-14</i> )								133.4	
15		Tutorials, handing in, etc						1.5	
16		Assessment						3	6
17									
18									
<b>Subtotal 2</b>								<b>4.5</b>	<b>6</b>
<b>Total 2</b> ( <i>Hours of class plus student homework hours between weeks 15-18</i> )								10.5	
<b>TOTAL</b> ( <i>Total 1 + Total 2</i> )								<b>143.9</b>	