Universidad Carlos III de Madrid
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COURSE: BIOMEDICAL APPLICATIONS OF NANOTECHNOLOGY		
DEGREE: BIOMEDICAL ENGINEERING	YEAR: 2018/2019	TERM: 2nd

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 (29/01)	1	Introduction to the Microscale		X			Reading of proposed topics	1,6	6
1 (01/02)	2	BioMEMS Materials	M1				Reading of proposed topics & student activity	1,6	
2 (05/02)	3	Microfabrication Methods I	M2				Reading of proposed topics & student activity	1,6	6
2 (08/02)	4	Microfabrication Methods II	M3				Reading of proposed topics & student activity	1,6	
3 (12/02)	5	Imaging and Characterizing the Microscale		X			Reading of proposed topics & student activity	1,6	6
3 (15/02)	6	Microfluidics I	M4				Reading of proposed topics & student activity	1,6	

4 (19/02)	7	Microfluidics II	M5				Reading of proposed topics & student activity	1,6	6
4 (22/02)	8	Microfluidics III	M6				Reading of proposed topics & student activity	1,6	
5 (26/02)	9	Microfluidics IV	M7				Reading of proposed topics & student activity	1,6	6
5 (01/03)	10	Sensing & Detection Methods I	M8				Reading of proposed topics & student activity	1,6	
6 (05/03)	11	Sensing & Detection Methods II	M9				Reading of proposed topics & student activity	1,6	6
6 (08/03)	12	Sensing & Detection Methods III	M10				Reading of proposed topics & student activity	1,6	
7 (12/03)	13	PDMS I & II Lab		X			Practice	1,6	6
7 (15/03)	14	Devices for Manipulation of Cells and Biomolecules	M11				Reading of proposed topics & student activity	1,6	
8 (19/03)	15	PDMS III Lab		X			Practice	1,6	6
8 (22/03)	16	Midterm Exam I. Seminar: Optical Sensors		X			Exam & Seminar	1,6	
9 (26/03)	17	Microfluidics I & II Lab		X			Practice	1,6	6
9 (29/03)	18	BioMEMS for Analysis and Diagnosis I	M12				Reading of proposed topics & student activity	1,6	
10 (02/04)	19	Flow Cytometry Data Analysis		X			Computer Exercise	1,6	6
10 (05/04)	20	BioMEMS for Analysis and Diagnosis II	M13				Reading of proposed topics & student activity	1,6	

11 (09/04)	21	Glucometer I, II		X			Practice	1,6	6
11 (12/04)	22	Glucometer III, IV		X			Practice	1,6	
12 (16/04)		**Easter**							
12 (19/04)		**Easter**							
13 (23/04)	23	Scientific Paper Presentations 1-7		X			Scientific Papers 1-7	1,6	6
13 (26/04)	24	Scientific Paper Presentations 8-13		X			Scientific Papers 8-13	1,6	
14 (30/04)	25	Cell Based Chips	M14				Reading of proposed topics & student activity	1,6	3
14 (03/05)	26	**Labor Day Holiday**							
15 (07/05)	27	Hybrid Technologies for Cell Biology	M15				Reading of proposed topics & student activity	1,6	6
15 (10/05)	28	Midterm Exam II. Seminar: Non-Invasive White Cell Counts at the Tip of Your Finger		X			Exam & Seminar	1,6	
							Subtotal 1	**43,2**	**81**
								124,2	

16 (14/05)		BioMEMS Outdoor Class					Revision	1,6	
16 (17/05)		Tutorials, handing in, etc					Examples and exercises	1,6	
17		Assessment						6	
17									
18									
							Subtotal 2	**9,2**	
							Total 2 *(Hours of class plus student homework hours between weeks 16-19)*	**9,2**	
							TOTAL A *(Total 1 + Total 2)*	**133,4**	

LABORATORIES CLASSES PROGRAMMING (*)						
WEEK	SESSION	DESCRIPTION	LABORATORY	WEEKLY PROGRAMMING FOR STUDENT		
				DESCRIPTION	CLASS HOURS	HOMEWORK HOURS (Max. 7h week)
7 (12/03)	1	PDMS I & II	Lab 1.0.G15 (Bioengineering)		1,6	3
9 (26/03)	2	Microfluidics I & II	Lab 1.0.G15 (Bioengineering)		1,6	3
10 (09/04)	3	Glucometer I & II	Lab 1.0.G15 (Bioengineering)		1,6	3
11 (12/04)	4	Glucometer III & IV	Lab 1.0.G15 (Bioengineering)		1,6	3
				Subtotal 3	**6,4**	**12**
				Total 3 *(Hours of class plus student homework hours of ten sessions laboratories)*	**18,4**	
				TOTAL B *(Total 3)*	**18,4**	
TOTAL *(Total A + Total B. Maximum 180 hours)*					**151,8**	

(*) *In EPS are given an additional 16 hours of laboratory practices along ten sessions.*