



COURSE: Fundamental of tissue engineering and regenerative medicine (3º)		
DEGREE: Biomedical Engineering	YEAR: 2017-18	TERM: 2

WEEKLY PLANNING									
WEEK Date	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 Jan25&26	2	Introduction (Justification/ structure)+ Organization of tissues &organs		X	yes		Computer room	1,6	6
2 Jan30	3	Epithelial Tissue	X				Room 7.1.J06	1,6	
2 Feb 1&2	4	Introduction to Virtual microscope/VM Epithelium		X	yes		Computer room	1,6	6
3 Feb 6	5	Connective Tissue/Bone regeneration	X				Room 7.1.J06	1,6	
3 Feb 8&9	6	VM connective		X	yes		Computer room	1,6	6
4	7	Muscular Tissue	X				Room 7.1.J06	1,6	

Feb 13										
4 Feb 15&16	8	Muscular Virtual microscope		X	yes		Computer room	1,6	6	
5 Feb 20	9	Blood and Circulatory system	X				Room 7.1.J06	1,6		
5 Feb 22&23	10	Virtual microscope/Paper discussion		X	yes		Computer room	1,6	6	
6 Feb 27	11	Nervous Tissue & Lymphatic system	X				Room 7.1.J06	1,6		
6 Mar 1&2	12	VM: Nervous and lymphatic		X	yes		Computer room	1,6	6	
7 Mar6	13	Organs Recognition	X				Room 7.1.J06	1,6		
7 Mar 8&9	14	Histology as a diagnostic tool /MOOC TUTORY		X	yes		Date & Computer Rooms Previously noticed	1,6	6	
8 Mar 13	15	Continuous Evaluation Test/Atlas assignment	X				Room 7.1.J06	1,6		
8 Mar 15&16	16	MOOC		X	yes		Computer room	1,6	6	
9 Mar 20	17	Cell culture (I)	X				Room 7.1.J06	1,6		
9 Mar 22&23	18	MOOC		X	yes		Computer room	1,6	6	
10 Apr 3	19	Cell culture (II): Bioreactors	X				Room 7.1.J06	1,6		
10 Apr 5&6	20	MOOC		X	yes		Computer room	1,6	6	
11 Apr 10	21	Stem cells I	X				Room 7.1.J06	1,6		
11 Apr 12&13	22	MOOC		X	yes		Computer room	1,6	6	
12 Apr 17	23	Stem cells II	X				Room 7.1.J06	1,6		
12 Apr 19&20	24	MOOC		X	yes		Computer room	1,6	6	
13 Apr 24	25	Stem cells III	X				Room 7.1.J06	1,6		

13 Apr 26&27	26	MOOC		X	yes		Computer room	1,6	
14 May 3&4	27	Continuous Evaluation Test/MOOC test					Date & Computer Rooms Previously noticed	1,6	6
14 May 8	28		MOOC→ End of classes	X	yes		Computer room	1,6	6
Subtotal 1								43,2	84

Total 1 (Hours of class plus student homework hours between weeks 1-14)	
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15		Tutorials, handing in, etc					Final review	3
16		Assessment					Exam	3
17								
18								

Subtotal 2

6

Total 2 (Hours of class plus student homework hours between weeks 15-18)	
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TOTAL A (Total 1 + Total 2)	133,2
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LABORATORIES CLASSES PROGRAMMING (*)						
WEEK	SESSION	DESCRIPTION	LABORATORY	WEEKLY PROGRAMMING FOR STUDENT		
				DESCRIPTION	CLASS HOURS	HOMEWORK HOURS (Max. 7h week)
	1	Basic knowledge of how work in a Histological Laboratory. Techniques and devices	UC3M Bioengineering Labs	Teams of 10 students	1,6	1
	2	Sampling fixed and mounts of samples. Paraffin tissue section procedure.	UC3M Bioengineering Labs	Teams of 10 students	1,6	1

	3	Microscope I: Theory and use	UC3M Bioengineering Labs	Teams of 10 students	1,6	1
	4	Microscope II: Theory and use	UC3M Bioengineering Labs	Teams of 10 students	1,6	1
	5	Histology Staining Techniques I: HE/E, <u>Immunohistochemistry</u> and immunofluorescent	UC3M Bioengineering Labs	Teams of 10 students	1,6	1
	6	Histology Staining Techniques II: HE/E, <u>Immunohistochemistry</u> and immunofluorescent	UC3M Bioengineering Labs	Teams of 10 students	1,6	1
	7	Tissue Recognition in the microscope I	UC3M Bioengineering Labs	Teams of 10 students	1,6	1
	8	Tissue Recognition in the microscope II	UC3M Bioengineering Labs	Teams of 10 students	1,6	1
	9	Tissue Recognition in the microscope III	UC3M Bioengineering Labs	Teams of 10 students	1,6	1
	10	Recognition of your tissue section	UC3M Bioengineering Labs	Teams of 10 students	1,6	1
Subtotal 3					16	10
Total 3 (<i>Hours of class plus student homework hours of ten sessions laboratories</i>)					26	
TOTAL B (<i>Total 3</i>)					26	
TOTAL (<i>Total A + Total B. Maximum 180 hours</i>)					159,2	

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