



COURSE: Fundamental of tissue engineering and regenerative medicine (3º)								
DEGREE: Biomedical Engineering						YEAR: 2022-23	TERM: 2	
WEEKLY PLANNING								
Date	SESSION	DESCRIPTION	GROUPS (mark X)		SPECIAL ROOM FOR SESSION (Computer class room, audio-visual class room)	WEEKLY PROGRAMMING FOR STUDENT		
			LECTURE S	SEMINAR S		DESCRIPTION	CLASS HOURS	HOMEWOR K HOURS (Max. 7h week)
Jan 30	1	Presentation and subject introduction + Organization of tissues/organs + Repair and regeneration.	X			7.1.J07	1,6	3
Jan 31	2	Introduction to Virtual microscope (VM) and Histology		X	Computer	7.0.J05 /2.2.C04	1,6	6
Feb 6	3	Epithelial Tissue	X			7.1.J07	1,6	
Feb 7	4	VM Epithelium		X	Computer	7.0.J05 /2.2.C04	1,6	6
Feb 13	5	Connective Tissue/Bone regeneration	X			7.1.J07	1,6	
Feb 14	6	VM connective and Bone		X	Computer	7.0.J05 /2.2.C04	1,6	6
Feb 20	7	Muscular Tissue	X			7.1.J07	1,6	

Feb 21	8	VM Muscle		X	Computer	7.0.J05 /2.2.C04	1,6	6
Feb 27	9	Blood and Circulatory system	X			7.1.J07	1,6	
Feb 28	10	VM Blood and circulatory		X	Computer	7.0.J05 /2.2.C04	1,6	6
Mar 6	11	Nervous Tissue & Lymphatic system	X			7.1.J07	1,6	
Mar 7	12	VM Nervous and lymphatic		X	Computer	7.0.J05 /2.2.C04	1,6	6
Mar 14	13	VM exercises & doubts resolution (Histology as a diagnostic tool)	X			7.1.J07	1,6	
Mar 21*	14	Continuous Evaluation Test/Atlas test SPOC VIDEO assay TUTORIAL		X	Computer	7.0.J05 /2.2.C04	1,6	6
Mar 27	15	Cell culture (I)	X			7.1.J07	1,6	
Mar 28	16	SPOC		X	Computer	7.0.J05 /2.2.C04	1,6	6
Apr 11*	17	Cell culture (II): Bioreactors		X	Computer	7.0.J05 /2.2.C04	1,6	
Apr 17	18	Stem cells I (P. Baptista)	X			7.1.J07	1,6	6
Apr 18	19	SPOC		X	Computer	7.0.J05 /2.2.C04	1,6	
Apr 24	20	Stem cells II (P. Baptista)	X			7.1.J07	1,6	6
Apr 25	21	SPOC		X	Computer	7.0.J05 /2.2.C04	1,6	
May 8	22	Stem cells III (P. Baptista)	X			7.1.J07	1,6	6
May 9	23	Continuous Evaluation Test: SPOC & Practices tests		X	Computer	7.0.J05 /2.2.C04	1,6	

May	24	Video Exposition and Collective tutorial		X			1,6	6
Subtotal 1							43,2	84
Total 1 (Hours of class plus student homework hours between weeks 1-14)								
		Tutorials, handing in, etc				Final review	3	
		Assessment				Exam	3	
Subtotal 2							6	
LABORATORIES CLASSES PROGRAMMING (*)								
WEEK	SESSIO N	DESCRIPTION	LABORATORY	WEEKLY PROGRAMMING FOR STUDENT				
				DESCRIPTION	CLASS HOURS	HOMEWOR K HOURS (Max. 7h week)		
	1	Histology Techniques: Sample processing and sectioning for histology	UC3M Bioengineering Labs	Teams of 10 students	3	1		
	2	Histology Staining techniques: HE/E, <u>Immunohistochemistry</u> and immunofluorescence	UC3M Bioengineering Labs	Teams of 10 students	3	1		
	3	Microscope and Tissue Recognition in the microscope	UC3M Bioengineering Labs	Teams of 10 students	3	1		
TOTAL B (Total 3)							26	
TOTAL (Total A + Total B. <u>Maximum 180 hours</u>)							159,2	