



COURSE: Multimodality imaging		
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	1 28-Jan	Introduction	X				Mónica Abella	1,6	
1	2 31-Jan	X-Ray production / Interaction of radiation and matter I	X				Mónica Abella	1,6	
2	3 4-Feb	X-Ray production / Interaction of radiation and matter I (Computer room)		X	Yes	Yes	In computer room. Mónica Abella	1,6	4
2	4 7-Feb	Conventional Radiology I	X				Mónica Abella	1,6	
3	5 11-Feb	Conventional Radiology II (Computer room)	X				Mónica Abella	1,6	4
3	6 14-Feb	Advanced Techniques I (Computer room)		X	Yes	Yes	In computer room. Mónica Abella	1,6	4

4	7 18-Feb	Advanced Techniques II – Intro Tomography (Computer room)		X	Yes	Yes	In computer room. Mónica Abella	1,6	4
4	8 21-Feb	Practical Session – X-ray room		X	Yes	Yes	In BiiG labs. Mónica Abella and	3	4
5	9 25-Feb	Computed Tomography	X				Mónica Abella	1,6	
5	10 28-Feb	Radioactivity and Radionuclide production: cyclotron, generator, Poisson distribution, decay, half life	X				Mónica Abella	1,6	
6	11 4-Mar	Measurement & Instrumentation	X				Mónica Abella	1,6	
6	12 7-Mar	Practical Session – CT		X	Yes	Yes	In BiiG labs. Mónica Abella and Cristóbal Martínez	3	
7	13 11-Mar	Planar imaging	X				Mónica Abella	1,6	
7	14 14-Mar	Tomography: PET-SPECT					Mónica Abella	3	
8	15 18-Mar	PET/CT (Computer room)	X	X	Yes	Yes	In computer room. Mónica Abella	1,6	4
8	16 21-Mar	Ultrasound: Physical principles	X				Cristóbal Martínez	1,6	
9	17 25-Mar	Ultrasound: Physical principles	X				Cristóbal Martínez	1,6	
9	18 28-Mar	Ultrasound: Instrumentation		X			In BiiG labs. Cristóbal Martínez	1,6	
10	19 1-Apr	MRI: Physical principles I	X				Manuel Desco	1,6	
10	20 4-Apr	MRI: Physical principles II (Computer room)		X	Yes	Yes	In computer room. Manuel Desco	1,6	4
11	21 8-Apr	MRI: Instrumentation	X				Manuel Desco	1,6	
11	22 11-Apr	MRI: Sequences I	X				Manuel Desco	1,6	
12	23 25-Apr	MRI: Localization and reconstruction I (Computer room)		X	Yes	Yes	In computer room. Manuel Desco	1,6	4
13	24 29-Apr	MRI: Localization and reconstruction II	X				Manuel Desco	1,6	
14	25 6-May	MRI: Imaging sequences	X				Manuel Desco	1,6	

14	26 9-May	MRI: Other sequences and artifacts	X				Manuel Desco	1,6	
15	27 13-May	TUTORSHIP					Mónica Abella	1,6	
Subtotal 1								41,6	32
Total 1 (Hours of class plus student homework hours between weeks 1-14)								73,6	

TOTAL A (Total 1 + Total 2)	73,6
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LABORATORIES CLASSES PROGRAMMING (*)

WEEK	SESSION	DESCRIPTION	LABORATORY	WEEKLY PROGRAMMING FOR STUDENT		
				DESCRIPTION	CLASS HOURS	HOMEWORK HOURS (Max. 7h week)
	1	X-ray (Cristóbal Martínez)	BiiG laboratories, 7.2.H31	February 21th, from 2pm to 5pm (seminar hours + 1) February 22th, from 9am to 12pm	3	4
	2	CT (Cristóbal Martínez)	BiiG laboratories, 1.0.G14	March 7th, from 2pm to 5pm (seminar hours + 1) March 7th, from 9am to 12pm	3	4
	3	MRI (Daniel Calle)	HGGM hospital	7 th , 8 th May, from 9am to 2pm	3	4
	4	US (Cristóbal Martínez)	BiiG laboratories, , 1.0.G13	March 28th, from 3pm to 5pm (seminar hours)	2	2
Subtotal 3					11	14
Total 3 (Hours of class plus student homework hours of seven sessions laboratories)					25	

TOTAL B (Total 3)	25
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TOTAL (Total A + Total B. <u>Maximum 180 hours</u>)	98,6
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(*) In EPS are given an additional 16 hours of laboratory practices along ten sessions.