Universidad Carlos III de Madrid
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COURSE: BIOCHEMISTRY		
DEGREE: Biomedical Engineering	**YEAR: 2016-2017**	**TERM: 1**

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 (7/9)	**Introduction**	X					1,6	6
1	2 (9/9)			X			Solve the proposed problems and exercises	1,6	
2	3 (14/9)	**Protein analysis I**	X					1,6	6
2	4 (16/9)			X			Solve the proposed problems and exercises	1,6	
3	5 (21/9)	**Protein analysis II. Post translational modifications**	X					1,6	6

3	6 (23/9)			X	X		Solve the proposed problems and exercises Selected paper discussion	1,6	
4	7 (28/9)	**Enzymes**	X					1,6	6
4	8 (30/9)			X			Solve the proposed problems and exercises	1,6	
5	9 (5/10)	**Metabolic Routes I: Energy and Glycolysis**	X					1,6	6
5	10 (7/10)			X			Solve the proposed problems and exercises Selected paper discussion	1,6	
6	11 (14/10)	**Metabolic Routes II: Krebs cycle, Oxidative Phosphorylation**	X	X			Solve the proposed problems and exercises Selected paper discussion	1,6	6
7	12 (19/10)	**First Continuous Evaluation Test OCTOBER 19TH** **Metabolic Routes III. Biosynthesis and degradation**	X					1,6	
7	13 (21/10)			X				1,6	6
8	14 (26/10)	**Signal Transduction I. Membrane receptors. Second messengers. Main signalling pathways**	X				Solve the proposed problems and exercises	1,6	
8	15 (28/10)			X				1,6	6
9	16 (2/11)	**Signal Transduction II. Membrane receptors. Second messengers. Main signalling pathways**	X				Solve the proposed problems and exercises	1,6	
9	17 (4/11)	**.**		X				1,6	6
10	18 (9/11)	**Cancer**	X				Solve the proposed problems and exercises Selected paper discussion	1,6	
10	19 (11/11)	**.**		X				1,6	6
11	20 (16/11)	**Second Continuous evaluation Test (November 25th)**	X				Solve the proposed problems and exercises Selected paper discussion	1,6	
11	21 (18/11)			X				1,6	6
12	22 (23/11)	**Cytoskeleton/ Proteins in motion**	X				Solve the proposed problems and exercises Selected paper discussion	1,6	
12	23 (25/11)			X				1,6	6
13	24 (30/11)	**Clinical Biochemistry Endocrinology Diabetes**	X				Solve the proposed problems and exercises	1,6	

13	25 (2/12)			X				1,6	6
14	26 (7/12)		X				Holidays		
14	27 (9/12)			X					
							Subtotal 1	**40**	**78**
							Total 1 *(Hours of class plus student homework hours between weeks 1-14)*		

15	28 (14/12)		X					4,6	
15	29 (16/12)			X			Tutorials, review		
							Subtotal 2	4,6	
							Total 2 *(Hours of class plus student homework hours between weeks 15-18)*		
							TOTAL A *(Total 1 + Total 2)*	**44,6**	

LABORATORIES CLASSES PROGRAMMING (*)

WEEK	SESSION	DESCRIPTION	LABORATORY	WEEKLY PROGRAMMING FOR STUDENT		
				DESCRIPTION	CLASS HOURS	HOMEWORK HOURS (Max. 7h week)
	1	Cell culture **First group starts on Monday September 12th**	Tissue culture Cell and Tissue Engineering	Teams of 10 students	3,0	1

	2	Cell Harvesting. Lysate prepatration	Molecular Biology	Teams of 10 students	3,0	0,5
	3	Protein Quantification. Immunofluorescence	Molecular Biology	Teams of 10 students	3,0	0,5
	4	Protein electrophoresis. Western Blotting	Molecular Biology	Teams of 10 students	3,0	0,5
	5	Enzyme Kinetics	Molecular Biology	Teams of 10 students	3,0	0,5
			1	**Subtotal 3**	**15**	**3**

Total 3 *(Hours of class plus student homework hours of ten sessions laboratories)*	**18**
TOTAL B *(Total 3)*	

TOTAL *(Total A + Total B. Maximum 180 hours)*	

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