



Principles in Computer Engineering		
Bachelor's Degree in Computer Science and Engineering	GRADE: 1	QUARTER: 2

*The course has 28 sessions spread over 14 weeks. Laboratories can be in any of them.
Every week the students will have two sessions, except in one case it shall be three*

PLANIFICACIÓN SEMANAL DE LA ASIGNATURA									
Week	Session	Contents	GROUP (marcar X)		Classroom	Two teacher session	Student Work (Weekly)		
			BIG	SMALL			Description	Work hours (peer to peer)	Work hours (Max. 7h week)
1	1	Presentation	x			no	Students will review basic math concepts	1,66	
1	2	Topic 1: Mathematical Tools in physics		x		no	Complex numbers, linear equation systems	1,66	3
2	3	Topic 2. DC. Basic components of a circuit of cc.	X			No	Introduction to Ohm's law and behavior of passive and active components	1,66	
2	4	Topic 1. Problems		X		No	Complex numbers, linear equation	1,66	5

							systems problem solving		
3	5	Topic 3: Solving DC circuits.	x			no	Kirchoff and Maxwell Laws intruduction	1,66	7
3	6	Topic 3. Problems	x			No	Kirchoff and Maxwell Laws problem solving	1,66	
4	7	Topic 4: Techniques and tools of analysis of circuits	x			No	Norton Thevenin and Millman theorems (Theory)	1,66	7
4	8	Topic 4: Problems		x	Lab		Norton Thevenin and Millman theorems (Problem solving)	1,66	
5	9	Topic 5. Faraday induction law	X			No	Faraday's Law concepts.	1,66	7
5	10	Topic 5. Problems	X			No	Faraday's Law problems	1,66	
6	11	Faraday Lab	x		LAB.	yes	Resolution in the practice lab in groups of two people	1,66	7
6	12	Faraday Lab		x	LAB.	yes	Resolution in the practice lab in groups of two people	1,66	
7	13	Topics 1 to 4 Exam	x			no	Students will solve two problems with the aid of calculator and without reference material	1,66	7
7	14	PSPICE Introduction		X	Lab	No	PSPICE tool will be introduced for resolution and simulation of electric circuits	1,66	
8	15	Topic 6: Current variables at the time. Alternating current.	x			No	RLC circuits analysis w/ AC sources theory	1,66	7
8	16	Topic 6. Problems	x				RLC circuits w/ DC sources problem solving	1,66	

9	17	PSPICE: Circuits in DC		x	Lab	No	Solving DC circuits with PSPICE	1,66	7
9	18	PSPICE: Circuits in time			Lab.	no	Solving DC circuits in time with PSPICE	1,66	
10	19	Topic 7.: Resolution of AC circuits.	x			No	RLC circuits w/ AC sources problem solving	1,66	7
10	20	Topic 7. Problems		x		No	RLC circuits w/ AC sources problem solving	1,66	
11	21	PSPICE. Circuits in AC		x	LAB	No	Solving AC circuits with PSPICE	1,66	7
11	22	Topic 7. Problems		x		No	RLC circuits w/ AC sources problem solving	1,66	
12	23	PSPICE. Circuits in AC		x	LAB	No	Solving AC circuits with PSPICE	1,66	7
12	24	PSPICE. Circuits in AC		x	LAB	No	Solving AC circuits with PSPICE	1,66	
13	25	Topics 5 to 7 exam	x				Students will solve two problems with the aid of calculator and without reference material	1,66	7
13	26							1,66	7
14	27	Student final practice presentation		x	LAB	yes	Students present and defend the practice solved in group. It is part of the continuous assessment and is valued by at least two teachers.	1,66	7
14	28	Student final practice presentation		x	LAB	yes	Students present and defend the practice solved in group. It is part of the continuous assessment and is valued by at least two teachers.	1,66	7
Subtotal 1								48,33	
Total 1 (weeks 1-14)									
15		Reviews, Tutorials, etc							
16		Assesment Tutorial						3	
17									
18									
Subtotal 2								3	

Total 2 (<i>weeks 15-18</i>)	
TOTAL (<i>Total 1 + Total 2. Max 180 hours</i>)	