



COURSE: ELECTRIC POWER ENGINEERING FUNDAMENTALS		
DEGREE:	YEAR: 2	TERM: 1

*La asignatura tiene 29 sesiones que se distribuyen a lo largo de 14 semanas. Los laboratorios pueden situarse en cualquiera de ellas.
Semanalmente el alumnos tendrá dos sesiones, excepto en un caso que serán tres*

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	Subject presentation. Evaluation and working plan of the course. General concepts: voltage, current, power. Power balance. Kirchhoff's Laws. Resistance: Ohm's law. Ideal voltage and current sources.	X			NO		1,6	
1	2	DC problem solving		X		NO	Solve the proposed exercises	1,6	2
2	3	Association of resistances in series and parallel. Voltage and current divider. Dependent sources. Real sources. Source equivalence.	X			NO		1,6	4

2	4	DC problem solving		X		NO	Solve the proposed exercises	1,6	
3	5	Circuit analysis: Node-voltage and Mesh-current methods	X			NO		1,6	
3	6	DC problem solving		X		NO	Solve the proposed exercises	1,6	5
4	7	Thévenin and Norton, Max power transfer	X			NO		1,6	
4	8	DC problem solving		X		NO	Solve the proposed exercises	1,6	5
5	9	Inductors and capacitors. Fundamentals of a.c. electric power systems. Complex phasors representation of sinusoidal signal.	X			NO		1,6	
5	10	LAB 1		X	LAB	NO	Prepare lab session 1	1,6	5
6	11	Passive elements operation under sinusoidal excitation. Impedance.	X			NO		1,6	
6	12	AC problem solving.		X		NO	Solve the proposed exercises	1,6	7
7	13	DC EXAM	X			NO		1,6	
7	14	AC problem solving.		X		NO	Solve the proposed exercises	1,6	5
8	15	Power in AC. Power factor.	X			NO		1,6	
8	16	AC problem solving.		X		NO	Solve the proposed exercises	1,6	5
9	17	Proportionality & Superposition Coupled inductors: presentation	X			NO		1,6	
9	18	AC problems solving		X		NO	Solve the proposed exercises	1,6	5
10	19	Three-phase systems. Line and phase current and voltage. Single-phase equivalent circuit	X			NO		1,6	
10	20	AC problems solving		X		NO	Solve the proposed exercises	1,6	5
11	21	AC EXAM	X			NO		1,6	
11	22	LAB 2		X	LAB	NO	Prepare lab session 2	1,6	7
12	23	Power in a three-phase system. Reactive power compensation	X			NO		1,6	
12	24	3PH problem solving		X		NO	Solve the proposed exercises	1,6	7
13	25	Power measuring in three-phase systems	X			NO		1,6	
13	26	3PH problem solving		X		NO	Solve the proposed exercises	1,6	7
14	27	3PH problem solving	X			NO	Solve the proposed exercises	1,6	7

14	28	LAB 3		X	LAB	NO	Prepare lab session 3	1,6	7
	29	3PH EXAM	X			NO		1,6	7
Subtotal 1								48,33	83
Total 1 (Hours of class plus student homework hours between weeks 1-14)								131,33	

15		Tutorials, handing in, etc						10	
16		Assessment						3	
17									10
18									
Subtotal 2								3	20
Total 2 (Hours of class plus student homework hours between weeks 15-18)								23	

TOTAL (Total 1 + Total 2. <u>Maximum 180 hours</u>)								154,33	
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