

The course has 29 sessions that are distributed over 14 weeks. Laboratories can be located in any of these. Weekly the student will have two sessions, except in one case that will be three.

WEEKLY PLANNING

WEEK	SESSION	CONTENT OF THE SESSION	GROUP (check X)		Indicate a different classroom space (computer room, multimedia, etc.)	Indicate YES / NO is a session with 2 teachers	WEEKLY STUDENT WORK	CLASSROOM HOURS	WORKING HOURS (Max 7h. week)
			LARGE	SMALL					
1	1	Overview of energy system in the world and in Spain	X			NO	Class attendance. Study of the proposed items.	1.66	5.5
1	2	Practical work - Data sources		X		NO	Class attendance. Study of the proposed items.	1.66	
2	3	Basics of Energy economics	X			NO	Class attendance. Study of the proposed items.	1.66	5.5
2	4	Problems of energy markets 1		X		NO	Class attendance. Study of the proposed items.	1.66	
3	5	Energy sources and markets: Coal and oil	X			NO	Class attendance. Study of the proposed items.	1.66	5.5
3	6	Problems of energy markets 2		X		NO	Class attendance. Study of the proposed items.	1.66	
4	7	Energy sources and markets: Gas and Electricity overviews	X			NO	Class attendance. Study of the proposed items.	1.66	7
4	8	Problems of energy markets 3		X		NO	Class attendance. Study of the proposed items. Practical tasks	1.66	
5	9	Energy sources and markets: Nuclear energy, comparison and regulation	X			NO	Class attendance. Study of the proposed items.	1.66	
5	10	Externalities		X		NO	Class attendance. Study of the proposed items. Practical tasks	1.66	7
6	11	Emission markets. Decarbonization plans	X			NO	Class attendance. Study of the proposed items.	1.66	
6	12	Problems of externalities and emission markets		X		NO	Class attendance. Study of the proposed items.	1.66	
7	13	MID-TERM EXAM	X			NO	Class attendance. Study of the proposed items.	1.66	
7	14	Electricity markets: fundamentals		X	Computer room (*)	NO	Class attendance. Study of the proposed items.	1.66	5.5
8	15	Practical session. Screening curves and power system planning	X			NO	Class attendance. Study of the proposed items.	1.66	
8	16	Wholesale electricity markets		X		NO	Class attendance. Study of the proposed items. Practical tasks	1.66	5.5
9	17	Problems of congestion management	X			NO	Class attendance. Study of the proposed items.	1.66	
9	18	Ancillary services and their markets. Wholesale prices of electricity		X	Computer room (*)	NO	Class attendance. Study of the proposed items.	1.66	5.5
10	19	Practical session. Zonal prices in international markets	X			NO	Class attendance. Study of the proposed items.	1.66	
10	20	Regulated activities in electricity markets: transmission and distribution.		X		NO	Class attendance. Study of the proposed items.	1.66	7
11	21	Transmission planning and regulation	X			NO	Class attendance. Study of the proposed items.	1.66	
11	22	Retail markets		X	Computer room (*)	NO	Class attendance. Study of the proposed items. Practical tasks	1.66	7
12	23	Retail markets. Practical session	X			NO	Class attendance. Study of the proposed items.	1.66	
12	24	Markets of natural gas.		X		NO	Class attendance. Study of the proposed items.	1.66	
13	25	Practical session. PVPC	X			NO	Class attendance. Study of the proposed items.	1.66	7
13	26	Cost benefit analysis in energy investments		X		NO	Class attendance. Study of the proposed items.	1.66	7
14	27	Investments in energy projects.	X			NO	Class attendance. Study of the proposed items.	1.66	
14	28	Analysis of energy investments		X		NO	Class attendance. Study of the proposed items.	1.66	7
14	29	Practical work in energy investments	X			NO	Class attendance. Study of the proposed items.	1.66	
Subtotal 1								48.14	82
Preparation for exams and exams									
Preparation, delivery and presentation of the									
Subtotal 2								3	16
Total 2 (Classroom hours and student work between the weeks 15-18)								44.86	16
TOTAL (Total 1 + Total 2. Max. 180 horas)								130.14	175

(*) NOTE: The sessions in the computer room may be replaced by sessions in the normal classroom in which students must carry a laptop.