Universidad Carlos III de Madrid

COURSE NAME: HOME AUTOMATION AND LIGHTING.		
DEGREE: ELECTRICAL ENGINEERING	**CURSO: 3**	**CUATRIMESTRE: 2**

CRONOGRAMA ASIGNATURA

WEEK	SESION	DESCRIPTION OF THE CONTENT OF THE SESSION	GROUP (Mark X)		Indicate space necessary different classroom (laboratory, etc.)	Indicate YES/NO is one session with 2 teachers	STUDENT WORK DURING THE WEEK		
			BIG	Small			DESCRIPTION	CLASSROOM HOURS	HOURS work week Maximum 7 H
1	1	Presentation lighting module: scope and practical to achieve objectives. Exhibition lighting project.	X			NO	Read module I in Global classroom training	1,66	7
1	2	basic concepts and history of lighting technique		X		NO	Read module I in Global classroom training and reference literature I.	1,66	
2	3	Physics of light, fundamental laws that regulate the optical behavior. Resolution of problems.	X			NO	Read module I in Global classroom training and reference literature I like manual support in www.indalux.es	1,66	7
2	4	Diagram and photometric graphics		X		NO	Solve practical issues	1,66	
3	5	Filament lamps. Fundamentals and technological aspects.	X			NO	Read module training II Global Classroom and reference literature II	1,66	7
3	6	Lamps of discharge. Fundamentals and technological aspects		X		NO	Read module training II Global Classroom and reference literature II	1,66	
4	7	Special lamps - regulation and control systems	X			NO	Read module training II Global Classroom and reference bibliographic II as manual support in www.luxmate.es	1,66	7
4	8	**Partial evaluation test:** • Introduction and basics. • Lighting equipment.		X		NO	Review for the test of partial evaluation.	1,66	
5	9	Project of interior lighting. Rules of application and basic parameters	X			NO	Read module III in Global classroom training and reference literature I	1,66	7
5	10	PRACTICES 1: CALCULATION OF INTERIOR LIGHTING		X	Laboratory 1.2D17	NO	Conduct a case study of calculation of interior lighting	1,66	
6	11	Project of interior lighting. Process of calculation.	X			NO	Read module III in Global classroom training and reference literature I	1,66	7

6	12	Outdoor lighting project. Calculation process and applicable regulations.		X		NO	Conduct a case study of calculation of outdoor lighting	1,66	
7	13	Outdoor lighting project. Calculation process and applicable regulations.	X			NO	Read module III in Global classroom training and reference literature I	1,66	7
7	14	**Partial evaluation test:** • Interior lighting. • Outdoor lighting.		X			Review for the test of partial evaluation.	1,66	7
8	15	Introduction to energy efficiency and home automation systems.	X			NO	Read the documentation on energy efficiency available in the global classroom.	1,66	7
8	16	Energy efficiency. Review of efficient systems in lighting, air conditioning, management of electricity consumption, etc.		X		NO	Read the documentation on energy efficiency available in the global classroom.	1,66	
9	17	Home and building automation. Concepts and objectives. Proprietary and non-proprietary systems. Technologies.	X			NO	Read the documentation on introduction to home automation available in the global classroom.	1,66	7
9	18	PRACTICES 2: CALCULATION OF OUTDOOR LIGHTING		X	Laboratorio 1.2D17	NO	Conduct a case study of calculation of outdoor lighting	1,66	
10	19	Inmotic systems: scope and control techniques.	X			NO	Read training module IV Global Classroom and bibliographic references	1,66	7
10	20	Control of air conditioning systems		X		NO	Read training module IV Global Classroom and bibliographic references	1,66	
11	21	Production of cold and heat control systems	X			NO	Read training module IV Global Classroom and bibliographic references	1,66	7
11	22	Control methodologies.		X		NO	Read training module IV Global Classroom and bibliographic references	1,66	
12	23	Protocols in control systems	X			NO	Read training module IV Global Classroom and bibliographic references	1,66	7
12	24	***Corresponding to the block 1 and 2 partial evaluation test:*** • Introduction, energy efficiency and home automation. • Climatiacion control systems.		X		NO	Review for the test of partial evaluation	1,66	
13	25	*Energy certification*	X			NO	Read tutorial certification in Global Classroom	1,66	7
13	26	*Energy certification.*		X		NO	Read tutorial certification in Global Classroom	1,66	
14	27	PRACTICES 3: CALCULATING ENERGY CERTIFICATION EC 3 X	X		Laboratorio 1.2D17	NO	Carrying out case study of energy certification	1,66	7
14	28	**Corresponding to the block 3 partial evaluation test:** • INDUSTRIAL CONTROL systems.		X		NO	Review block 3 for partial evaluation test.	1,66	
SUBTOTAL								**46,50 + 105 = 150**	
15		Recoveries, tutoring, delivery of works, etc.						10	
16-18		Preparation of evaluation and assessment						5	15
TOTAL								**180**	