



Universidad
Carlos III de Madrid

COURSE: Modelling and Simulation			
MASTER:	Computing Engineering	YEAR: 2	TERM: 1

WEEKLY PROGRAMMING									
WEEK	SESSION	DESCRIPTION	GROUPS		SPECIAL ROOM FOR SESSION (Computer class room, audio-visual class room)	Indicate YES/NO If the session needs 2 teachers: Maximum 4 sessions	WEEKLY PROGRAMMING FOR STUDENT		
			LECTURE	SEMINAR			DESCRIPTION	CLASS HOURS	HOMEWORK HOURS Maximum 7 H
1	1	Introduction to the course Unit 1. Introduction to Modelling and Simulation of Complex Systems	X				Study the contents explained in the theoretical session Reading the recommended literature	1,66	5
1	2	Unit 2. Random numbers	X				Study the contents explained in the theoretical session Reading the recommended literature Solve the proposed exercises	1,66	
2	3	Unit 2. Random Numbers	X				Study the contents explained in the theoretical session Reading the recommended literature Solve the proposed exercises	1,66	6
2	4	Practice 1: Randomness analysis		X	Computer class room		Study the contents explained in the theoretical session Reading the recommended literature Solve the proposed exercises	1,66	
3	5	Unit 3. Random Distributions	X				Practice 1	1,66	7
3	6	Practice 1: Randomness analysis		X	Computer class room		Practice 1	1,66	
4	7	Practice 1: Randomness analysis		X	Computer class room		Practice 1	1,66	
4	8	Unit 4. Simulation of discrete/continuous/combined events.	X				Study the contents explained in the theoretical session Reading the recommended literature Solve the proposed exercises	1,66	

5	9	Practice 1: Randomness analysis		X	Computer class room		Practice 2	1,66	7
5	10	Practice 2: Discrete event modelling		X	Computer class room		Practice 2	1,66	
6	11	Practice 2: Discrete event modelling		X	Computer class room		Practice 2	1,66	7
6	12	Unit 5. Distributed Simulation	X				Study the contents explained in the theoretical session Reading the recommended literature	1,66	
7	13	Unit 6. The Montecarlo Method		X	Computer class room		Study the contents explained in the theoretical session Reading the recommended literature Solve the proposed exercises	1,66	6
7	14	Practice 3. Simulation of a system using Montecarlo		X	Computer class room		Practice 3	1,66	
8	15	Practice 3. Simulation of a system using Montecarlo		X	Computer class room		Practice 3	1,66	7
8	16	Practice 3. Simulation of a system using Montecarlo		X	Computer class room		Practice 3	1,66	
9	17	Unit 7. Analysis of Simulation Results	X				Study the contents explained in the theoretical session Reading the recommended literature	1,66	7
9	18	Unit 7. Analysis of Simulation Results		X	Computer class room		Study the contents explained in the theoretical session Reading the recommended literature Solve the proposed exercises	1,66	
10	19	Unit 8. Modelling of complex systems		X	Computer class room		Study the contents explained in the theoretical session Reading the recommended literature	1,66	7
10	20	Practice 4: Modelling and Simulation of a complex system		X	Computer class room		Practice 4	1,66	
11	21	Practice 4: Modelling and Simulation of a complex system		X	Computer class room		Practice 4	1,66	7
11	22	Practice 4: Modelling and Simulation of a complex system		X	Computer class room		Practice 4	1,66	
12	23	Practice 4: Modelling and Simulation of a complex system		X	Computer class room		Practice 4	1,66	7
12	24	Practice 4: Modelling and Simulation of a complex system		X	Computer class room		Practice 4	1,66	
13	25	Practice 4: Modelling and Simulation of a complex system		X	Computer class room		Practice 4	1,66	7
13	26	Practice 4: Modelling and Simulation of a complex system		X	Computer class room		Practice 4 Preparation of the oral presentation	1,66	
14	27	Oral presentation of several practices	X				Preparation of the oral presentation	1,66	7
14	28	Oral presentation of several practices	X					1,66	
	29	SUBTOTAL							
SUBTOTAL								46,48 + 94 = 140,48	
15		Tutorials						3	
16-18		Assessment							30

