uc3m | Universidad Carlos III de Madrid
Vicerrectorado de Estudios
Apoyo a la docencia y gestión del grado

COURSE: PROBABILITY AND DATA ANALYSIS		
DEGREE: DATA SCIENCE AND ENGINEERING	YEAR: 1	TERM: 1

WEEKLY PLANNING

WEEK	SESSION	DESCRIPTION	TEACHING (mark X)		SPECIAL ROOM FOR SESSION (Computer class room, audio-visual class room)	WEEKLY PROGRAMMING FOR STUDENT		
			LECTURES	SEMINARS		DESCRIPTION	CLASS HOURS (1,66=50+50 min)	HOMEWORK HOURS (Max. Estim. 6,5h)
1	1	Ch1. Presentation. Introduction and Ch2. Univariate Data I.	X			Study the main contents of Chapter 1.	1.66	6.5
	2	Ch1. Problems.		X		Solve problems alike to the ones solved furing the lecture.	1.66	
2	3	Ch2. Theory: Univariate data II.	X			Study the main representation methods for quantitive and qualitative variables	1.66	6.5
	4	Ch2. Univariate data problems.		X		Solve problems alike to the ones solved during the lecture.	1.66	
3	5	Ch3. Theory: Bivariate data I.	X			Study the main representation methods for quantitive and qualitative variables	1.66	6.5
	6	Ch3. Bivariate data problems.		X		Solve problems alike to the ones solved during the lecture.	1.66	
4	7	Ch3. Theory: Bivariate data II.	X			Study numerical summaries for bivariate data	1.66	6.5
	8	Computer Laboratory I: Descriptive Statistics		X	X	Laboratory assignment	1.66	
5	9	Ch4. Theory: Probability. Introduction, random phenomena.	X			Study the main operations with events and their properties	1.66	6.5
	10	Ch4. Probability problems I.		X		Solve elementary probability problems	1.66	
6	11	Ch4. Theory: Probability. Properties, conditional probability.	X			Study Laplace rule, definition of conditional probability	1.66	6.5
	12	Ch4. Probability problems II.		X		Solve probability problems with Laplace Rule and apply the definition of conditional	1.66	
7	13	Ch4. Theory Probability. Bayes Theorem.	X			Study of total probability rule and Bayes Theorem	1.66	6.5
	14	Ch4. Probability Problems III.		X		Solve probability problems by means of the total probability rule and the Bayes Theorem	1.66	
8	15	Continuous evaluation.	X			Study for continuous evaluation	1.66	6.5
	16	Computer Laboratory II: Probability		X	X	Laboratory assignment	1.66	
9	17	Ch5. Theory: Random Variables. Definition, discrete r.v.	X			Understand the concept of random variable	1.66	6.5
	18	Ch5. Random variables problems I.		X		Solve problems alike to the ones solved during the lecture	1.66	
10	19	Ch5. Theory: Random Variables. Continuous r.v. Random vectors.	X			Solve problems of random variables	1.66	6.5
	20	Ch5. Random variables problems II.		X		Solve problems alike to the ones solved during the lecture	1.66	
11	21	Ch6. Theory. Distribution Models. Discrete r.v.	X			Study the probability models from the lecture	1.66	6.5
	22	Ch6. Distribution Models Problems I.		X		Solve problems alike to the ones solved during the lecture	1.66	
12	23	Ch6. Theory. Distribution Models. Continuous r.v.	X			Study the probability models from the lecture	1.66	6.5
	24	Computer Laboratory III: R. Variables and D. Models		X	X	Laboratory assignment	1.66	
13	25	Ch7. Theory: Linear Regression. Simple and Multiple.	X			Study simple and multiple linear regression	1.66	6.5
	26	Ch7. Linear Regression problems.		X		Solve problems for simple and multiple regression	1.66	
14	27	Continuous evaluation	X			Study for continuous evaluation	1.66	6.5
	28	Computer Laboratory IV: Linear Regression		X	X	Laboratory assignment	1.66	
	29	Ch6. Distribution Models Problems II.				Solve problems alike to the ones solved during the lecture	1.66	3.25
						Subtotal 1	**48**	**94**
						Total 1 *(Hours of class plus student homework)*	**142**	

15		Tutorials, handing in, etc					3.6	-
16 17 18		Assessment					4	10
						Subtotal 2	**8**	**10**
						Total 2 *(Hours of class plus student homework)*	**18**	

TOTAL (*Maximun 160 horas*)	**160**