Universidad Carlos III de Madrid

COURSE: Data Processing		
MASTER: Master in Telecommunication Engineering	YEAR: 1	TERM: 1

WEEKLY PLANNING

WEEK	SESSION	DESCRIPTION	Special room for session (computer classroom, audio-visual classroom…)	Session with more tan one teacher.	WEEKLY PROGRAMMING FOR STUDENT		
					DESCRIPTION	CLASS HOURS	HOMEWORK HOURS (MAX. 7,5 H)
1	1	Introduction: regression, classification and data analysis			Bibliographic exploration	1 h 40 m	7,5
	2	Regression (1): Introduction. 1-NN regression			Concept review. Problem solving	1 h 40 m	
2	3	Regression (2): Linear and polynomial regression.			Concept review. Problem solving	1 h 40 m	7,5
	4	Regression (3): Introduction to the programming language.	Computer classroom		Programming	1 h 40 m	
3	5	Regression (4): Linear and polynomial regression (2)			Studying class topics. Bibliographic exploration	1 h 40 m	7,5
	6	Regression (5): Data analysis in practice	Computer classroom		Programming, simulation, experiments.	1 h 40 m	
4	7	Regression (6): Bayesian regression.			Studying class topics. Bibliographic exploration	1 h 40 m	7,5
	8	Regression (7): Lab Session	Computer classroom		Programming, simulation, experiments.	1 h 40 m	
5	9	Regression (8): Gaussian Processes			Problem solving.	1 h 40 m	7,5
	10	Regression (9): Lab session	Computer classroom		Programming, simulation, experiments.	1 h 40 m	
6	11	Classification (1): Introduction: k-NN classification			Studying class topics. Bibliographic exploration	1 h 40 m	7,5
	12	Classification (2): Logistic regression			Studying class topics. Bibliographic exploration	1 h 40 m	
7	13	Classification (3): Optimization			Studying class topics. Bibliographic exploration	1 h 40 m	7,5
	14	Classification (4): Presentation of the classification challenge	Computer classroom		Programming, simulation, experiments..	1 h 40 m	
8	15	Classification (5): Support Vector Machines (SVM)			Studying class topics. Bibliographic exploration	1 h 40 m	7,5
	16	Classification (6): Lab session	Computer classroom		Programming, simulation, experiments.	1 h 40 m	
9	17	Classification (7): Lab session	Computer classroom		Programming, simulation, experiments.	1 h 40 m	7,5
	18	Classification (8): Lab session	Computer classroom		Programming, simulation, experiments.	1 h 40 m	
10	19	Topic models (1): Introduction: text analysis.			Studying class topics. Bibliographic exploration	1 h 40 m	7,5

	20	Topic models (2): Algorithms			Studying class topics. Bibliographic exploration	1 h 40 m	
11	21	Clustering (1): The k-means algorithm			Studying class topics. Bibliographic exploration	1 h 40 m	7,5
	22	Clustering (2): Hierarchical and spectral clustering algorithms			Studying class topics. Bibliographic exploration	1 h 40 m	
12	23	Final Project	Computer classroom		Programming, simulation, experiments.	1 h 40 m	7,5
	24	Final Project	Computer classroom		Programming, simulation, experiments.	1 h 40 m	
13	25	Final Project	Computer classroom		Programming, simulation, experiments.	1 h 40 m	7,5
	26	Final Project	Computer classroom		Programming, simulation, experiments.	1 h 40 m	
14	27	Final Project	Computer classroom		Programming, simulation, experiments.	1 h 40 m	5,8
	28	Final Project	Computer classroom		Programming, simulation, experiments.	1 h 40 m	
SUBTOTAL							46,7 + 103,3 = 150
15-16							
17-18		Assesment				3	
TOTAL							153