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	Data pre-processing (1): Normalization. Dimensionality Reduction			Concept review. Problem solving	1 h 40 m	
2	3	Data pre-processing (2): Clustering			Concept review. Problem solving	1 h 40 m	7,5
	4	Data analysis in Python.	Computer classroom		Programming	1 h 40 m	
3	5	Regression (1): Non-parametric methods			Studying class topics. Bibliographic exploration	1 h 40 m	7,5
	6	Data analysis in Python (II)	Computer classroom		Programming, simulation, experiments.	1 h 40 m	
4	7	Regression (2): Linear regression. Maximum likelihood.			Studying class topics. Bibliographic exploration	1 h 40 m	7,5
	8	Regression (3): Problems			Problem solving	1 h 40 m	
5	9	Regression (4): Bayesian regression			Problem solving.	1 h 40 m	7,5
	10	Regression (5): Lab session	Computer classroom		Programming, simulation, experiments.	1 h 40 m	
6	11	Regression (6): Problems			Studying class topics. Bibliographic exploration	1 h 40 m	7,5
	12	Regression (7): Lab session	Computer classroom		Programming, simulation, experiments	1 h 40 m	
7	13	Classification (1): Introduction: k-NN classification			Studying class topics. Bibliographic exploration	1 h 40 m	7,5
	14	Classification (2): Logistic regression			Studying class topics. Bibliographic exploration	1 h 40 m	
8	15	Classification (3):Logistic regression: Optimization			Studying class topics. Bibliographic exploration	1 h 40 m	7,5
	16	Classification (4): Presentation of the classification challenge			Planning challenge work.	1 h 40 m	
9	17	Classification (5): Neural Networks			Studying class topics. Bibliographic exploration.	1 h 40 m	7,5
	18	Classification (6): Lab session	Computer classroom		Programming, simulation, experiments.	1 h 40 m	
10	19	Classification (7): Neural Networks (II).			Studying class topics. Bibliographic exploration	1 h 40 m	7,5
	20	Classification (8): Lab session	Computer classroom		Programming, simulation, experiments	1 h 40 m	
11	21	Classification (9): Problems			Studying class topics. Bibliographic exploration	1 h 40 m	7,5

	22	Classification (19): Lab session	Computer classroom		Programming, simulation, experiments	1 h 40 m	
12	23	Topic Models (I): Introduction. Text analysis			Studying class topics. Bibliographic exploration	1 h 40 m	7,5
	24	Topic Models (II): Algorithms			Studying class topics. Bibliographic exploration	1 h 40 m	
13	25	Topic Models (III): Algorithms (II)			Studying class topics. Bibliographic exploration	1 h 40 m	7,5
	26	Final Project	Computer classroom		Programming, simulation, experiments.	1 h 40 m	
14	27	Problems			Problem solving	1 h 40 m	5,8
	28	Final Project	Computer classroom		Programming, simulation, experiments	1 h 40 m	
	29	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**