Universidad Carlos III de Madrid

SUBJECT: SIMULATION AND RESAMPLING		
MASTER DEGREE: MASTER IN STATISTICS FOR DATA SCIENCE Instructor: IGNACIO CASCOS FERNÁNDEZ	ECTS: 3	QUARTER: 2

TIMETABLE FOR THE SUBJECT

WEEK	SESSION	DESCRIPTION OF EACH SESSION	GROUP (X mark)		Indicate if a different lecture room is needed (computer, audiovisual, etc.)	HOMEWORK PER WEEK		
			1	2		DESCRIPTION	ATTENDING HOURS	HOMEWORK Max. 7 H/Week
1	1	RANDOM NUMBERS, MONTE CARLO INTEGRATION, AND STATISTICAL ANALYSIS OF SIMULATED DATA. EXAMPLES WITH R	X			Study of theoretical contents. Problem resolution	3	6h
2	1	SIMULATION OF RANDOM VARIABLES AND RANDOM VECTORS. EXAMPLES WITH R	X			Study of theoretical contents. Problem resolution	3	6h
3	1	MCMC TECHNIQUES. EXAMPLES WITH R	X			Study of theoretical contents. Problem resolution	3	6h
4	1	INTRODUCTION TO RESAMPLING. JACKNIFE. EXAMPLES WITH R	X			Study of theoretical contents. Problem resolution	3	6h

5	1	PARAMETRIC AND NONPARAMETRIC BOOTSTRAP. EXAMPLES WITH R	X			Study of theoretical contents. Problem resolution	3	6h
6	1	CROSS VALIDATION. EXAMPLES WITH R	X			Study of theoretical contents. Project preparation	3	6h
7	1	EXPOSITION OF THE PROJECTS	X			Proect preparation	3	6h
TOTAL HOURS							21	43