Universidad Carlos III de Madrid

SUBJECT: LOSS MODELS		
MASTER DEGREE: ACTUARIAL SCIENCE	ECTS: 3.0	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. 7H/WEEK
1	1	Basic risk variables: frequency	x			Examples of data sets and model fitting	3	6
2	1	Basic risk variables: severity	x			Examples of data sets and model fitting	3	6
3	1	Bayesian rating foundations	x			Examples on information theory and over-dispersed models	3	6
4	1	Bayesian rating applications	x			Examples on Risk classes grid using Bühlmann credibility	3	6
5	1	Monte Carlo Simulation	x			Computer-based examples on waiting times and claims simulations	3	6

6	1	Dynamic Solvency models and ruin theory	x			Computer-based examples on ruin probabilities by gross simulation.	3	6
7	1	The solvency variables. The reinsurance	x			Study of solvency position of companies based on reinsurance mix	3	6
TOTAL HOURS								