Universidad Carlos III de Madrid

DENOMINACIÓN ASIGNATURA: Cuantitative Microeconomics		
GRADO: Economics; Economics & Law.	CURSO:	CUATRIMESTRE: 1

Semana	Sesión	Descripción	Magistral	Reducido	Contenido	Horas clase	Horas trabajo
1	1	Topic 1.1: Maximum Likelihood Estimation.	X		Maximum Likelihood Estimation.	1.5	6 H
1	2	Practice 1.1: `gretl`		X	Introduction to scripts in `gretl`	1.5	
2	3	Topic 1.2: The Probit Model. Estimation.			Motivation. The Probit model. MLE.	1.5	6 H
2	4	Practice 1.2: Probit Estimation with `gretl`		X	Probit in `gretl`.	1.5	
3	5	Topic 1.3: Tests with Probit.	X		Wald. Likelihood ratio.	1.5	6 H
3	***6***	***Exercise 1.***		***X***	***Solving Exercise 1.***	1.5	
4	7	Topic 2.1: Ordinal and Multivariate models.	X		Ordinal Probit. Ordinal Logit. Multivariate Logit.	1.5	6 H
4	***8***	***Control 1.***		***X***	***Control 1: Topic 1.***	1.5	
5	9	Topic 2.2: Estimation of Ordinal and Multivariate models.	X		MLE of Ordinal and Multivariate models in `gretl`.	1.5	6 H
5	10	Practice 2.1: Ordinal model: marginal effects.		X	Ordinal model: marginal effects.	1.5	
6	11	Topic 3.3: Poisson regression.	X		Motivation. Interpretation of coeficients. MLE in `gretl`.	1.5	6 H
6	***12***	***Exercise 2.***		***X***	***Solving Exercise 2.***	1.5	
7	13	Topic 3.1: The Tobit model.	X		Motivation. Conditional expectation in Tobit.	1.5	6 H
7	***14***	***Control 2.***		***X***	***Control 2: Topic 2.***	1.5	
8	15	Topic 3.2: Truncation and Selection.	X		Truncated regression model. Heckman model. Roy Model.	1.5	6 H
8	16	Practice 3.1: Tobit estimation in `gretl`.		X	Tobit estimation in `gretl`. Marginal effects.	1.5	
9	17	Topic 3.3: Heckman. Estimation in `gretl`.	X		Heckman. MLE and Two-stage estimator.	1.5	6 H
9	***18***	***Exercise 3.***		***X***	***Solving Exercise 3.***	1.5	
10	19	Topic 4.1: Asymptotic Properties.	X		Probability in the limit. Law of large numbers. Central Limit Theorem.	1.5	6 H
10	***20***	***Control 2.***		***X***	***Control 2: Topic 2.***	1.5	
11	21	Topic 4.2: Monte Carlo.	X		Estimation of estimators properties via Monte Carlo.	1.5	6 H
11	22	Practice 4.2: Covariance estimator.		X	Pseudo-random numbers. Estimation of covariance properties via Monte Carlo.	1.5	
12	23	Topic 4.3: OLS and IV: Asymptotics.	X		Asymptotic properties of OLS and IV estimators.	1.5	6 H
12	24	Practice 4.2: Simulation of regression model.		X	Monte Carlo for OLS and IV.	1.5	
13	25	Topic 4.4: Selection bias and Simulation.	X		Tobit Monte Carlo.	1.5	6 H
13	***26***	***Exercise 4.***		***X***	***Solving Exercise 4.***	1.5	
14	27	Revisions and questions.	X		Revisions and questions.	1.5	6 H
14	***28***	***Control 4.***		***X***	***Control 4: Topic 3.***	1.5	