Universidad Carlos III de Madrid
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COURSE: STATISTICAL METHODS FOR SOCIAL SCIENCES: PREVISION TECHNIQUES (16630)		
DEGREE: DOBLE GRADO EN ESTUDIOS INTERNACIONALES Y DERECHO	**YEAR: 3**	**TERM: 2**

WEEKLY PLANNING

WEEK	SESSION	DESCRIPCIÓN DEL CONTENIDO DE LA SESIÓN	GROUPS (mark X)		Special room for session (computer classroom, audio-visual classroom…)	WEEKLY PROGRAMMING FOR STUDENT		
			LECTURES	SEMINARS		DESCRIPTION	CLASS HOURS	HOMEWORK HOURS (Max. 7h week))
1	1	Motivation of the course. Importance of the prediction in the social sciences	X				1,5	
1	2	Introduction to Eviews		X	Computer classroom	Study	1,5	6
2	3	Trends and cycles in the socio-economic data. Estimation of trend lines. Deterministic and effects of calendar seasonality.	X				1,5	
2	4	Regular and seasonal evolutivity of the mean in time series		X	Computer classroom	Study	1,5	6
3	5	Stochastic structures. Stochastic roots for trend and seasonality. Transformation of data to eliminate evolutivity	X				1,5	6

3	6	Estimation models with deterministic structures		X	Computer classroom	Study	1,5	
4	7	Stationary stochastic processes. White noise process. Temporal dependence and autocorrelation function	X				1,5	
4	8	Estimation of structural changes in level and trend		X	Computer classroom	Study	1,5	6
5	9	Autoregressive Models	X				1,5	
5	10	Stationarity through differentiation and the use of the correlogram		X	Computer classroom	Study	1,5	6
6	11	ARMA Models	x				1,5	
6	12	Estimation of the correlograma and Autoregressive modeling		x	Computer classroom	Study	1,5	6
7	13	Specification and validation of models. Unit roots test	x				1,5	
7	14	Midterm 1		x	Computer classroom	Study	1,5	6
8	15	Order of temporary dependence and seasonal roots	x				1,5	
8	16	Unit roots Test		x	Computer classroom	Study	1,5	6
9	17	Multivariate stationary models	x				1,5	
9	18	Granger causality test and VAR		x	Computer classroom	Study	1,5	6
10	19	Multiple dynamic regression model	x				1,5	
10	20	Uniequational econometric models		x	Computer classroom	Study	1,5	6
11	21	Cointegration	x				1,5	
11	22	Cointegration. Engel Granger Test		x	Computer classroom	Study	1,5	6
12	23	Application of Cointegration test	x				1,5	
12	24	Cointegration. Johansen Test		x	Computer classroom	Study	1,5	6
13	25	Vector models with equilibrium correction mechanisms	x				1,5	
13	26	Review session		x	Computer classroom	Study	1,5	6
14	27	Review session	x				1,5	6

14	28	Midterm 2		x	Computer classroom		1,5	
						Subtotal 1	**42**	**84**
						Total 1 *(Hours of class plus student homework hours between weeks 1-14)*		**126**

15		Tutorials, handing in, etc.					0	6
16		Assessment					3	21
17								
18								
						Subtotal 2	**3**	**27**
						Total 2 *(Hours of class plus student homework hours between weeks 15-18)*		**30**

TOTAL *(Total 1 + Total 2)*	**156**