



COURSE: Mathematics for Economics II		
DEGREE: Economics, Law-Economics, International Studies-Economics	YEAR: 1	TERM: 2

WEEKLY PLANNING								
WEEK	SESSION	DESCRIPTION	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	Topic 1: Matrices, determinants, inverse matrix, minors and rank of a matrix.	X			Resolution of problems and/or realization of assigned works	1,5	4
1	2	Topic 1: Exercises		X		Resolution of problems and/or realization of assigned works	1,5	
2	3	Topic 1: Rouché-Frobenius Theorem. Resolution of linear systems: Gauss and Cramer methods.	X			Resolution of problems and/or realization of assigned works	1,5	4
2	4	Topic 1: Exercises		X		Resolution of problems and/or realization of assigned works	1,5	
3	5	Topic 1: Eigenvalues and eigenvectors. Matrix diagonalization.	X			Resolution of problems and/or realization of assigned works	1,5	5

3	6	Topic 1: Exercises		X		Resolution of problems and/or realization of assigned works	1,5	
4	7	Topic: Orthogonal diagonalization of symmetric matrices. Quadratic forms.	X			Resolution of problems and/or realization of assigned works	1,5	
4	8	Topic 2: Exercises		X		Resolution of problems and/or realization of assigned works	1,5	5
5	9	Topic 2: Primitives: methods of calculus.	X			Resolution of problems and/or realization of assigned works	1,5	
5	10	Topic 2: Exercises		X		Resolution of problems and/or realization of assigned works	1,5	5
6	11	Topic 2: Definite integral: properties. Relationship between integral and derivative: Fundamental Theorem of Calculus	X			Resolution of problems and/or realization of assigned works	1,5	
6	12	Topic 2: Exercises		X		Resolution of problems and/or realization of assigned works	1,5	5
7	13	Topic: Barrow's Rule. Continuity and integration: Mean Value Theorem for integrals.	X			Resolution of problems and/or realization of assigned works	1,5	
7	14	Topic 2: Exercises		X		Resolution of problems and/or realization of assigned works	1,5	5
8	15	Topic 2: Area and integral. Exact and approximated calculus of a bounded region in the plane.	X			Resolution of problems and/or realization of assigned works	1,5	
8	16	Topic 2: Exercises		X		Resolution of problems and/or realization of assigned works	1,5	5
9	17	Topic 3: Improper integrals: convergence criteria.	X			Resolution of problems and/or realization of assigned works	1,5	
9	18	Chapter 3: Exercises		X		Resolution of problems and/or realization of assigned works	1,5	5
10	19	Topic 3: Sequences and limits: convergence criteria.	X			Resolution of problems and/or realization of assigned works	1,5	
10	20	Topic 3: Exercises		X		Resolution of problems and/or realization of assigned works	1,5	5

11	21	Topic 3: Series and limits: convergence criteria. Harmonic and Geometric series.	X			Resolution of problems and/or realization of assigned works	1,5	
11	22	Topic 3: Exercises		X		Resolution of problems and/or realization of assigned works	1,5	5
12	23	Topic 4: Double integral on bounded regions	X			Resolution of problems and/or realization of assigned works	1,5	
12	24	Topic 4: Exercises		X		Resolution of problems and/or realization of assigned works	1,5	5
13	25	Topic 4: Iterated integrals. Fubini's Theorem.	X			Resolution of problems and/or realization of assigned works	1,5	
13	26	Topic 4: Exercises		X		Resolution of problems and/or realization of assigned works	1,5	5
14	27	Topic 4: Integral transforms. Derivation under the integral.	X			Resolution of problems and/or realization of assigned works	1,5	
14	28	Topic 4: Exercises		X		Resolution of problems and/or realization of assigned works	1,5	5
Subtotal 1							42	68
Total 1 (Hours of class plus student homework hours between weeks 1-14)							110	

15		Tutorials, handing in, etc					20	
16		Assessment					3	17
17								
18								
Subtotal 2							3	17
Total 2 (Hours of class plus student homework hours between weeks 15-18)							40	

TOTAL (Total 1 + Total 2)							150	
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