SUBJECT TEACHING GUIDE

G341 - General Mathematics

Double Degree in Business Administration and Management and Labour Relations
Double Degree in Law and Administration and Business Management
Degree in Business Administration and Management

Academic year 2018-2019

1. IDENTIFYING DATA					
Degree	Double Degree in Business Administration and Management and Labour Relations			Type and Year	Core. Year 1 Core. Year 1
Faculty	Faculty of Economics and Business Studies				
Discipline	Subject Area: Mathematics Basic Training Module				
Course unit title and code	G341 - General Mathematics				
Number of ECTS credits allocated	6	Term		Semester based (1)	
Web					
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

Department	DPTO. MATEMATICA APLICADA Y CIENCIAS DE LA COMPUTACION
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Other lecturers	JOSE MANUEL LOPEZ CAMUS NEILA EMMA CAMPOS GONZALEZ EMMA MERINO CUE BEATRIZ GARCIA GARCIA

3.1 LEARNING OUTCOMES

- To solve mathematical and economical problems applying Analysis and Lineal Algebra techniques.

4. OBJECTIVES

To know how to use mathematical knowledge to solve economic problems.
To apply mathematical software to the resolution of mathematical problems.

6. COURSE ORGANIZATION

CONTENTS	
1	Real numbers: intervals, absolute value.
2	Lineal Algebra: Matrices. Linear systems.
3	Lineal Algebra: Vector spaces. Matrix diagonalization.
4	Real-valued functions of a real variable: Limit. Continuity
5	Differential calculus.
6	Real number sequences and series.
7	Integration: Riemann integral. Antiderivative.

7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessn	%
To solve exercises in teams.	Work	No	No	10,00
To solve mathematical problems using Maxima.	Laboratory evaluation	No	No	5,00
Maxima test.	Laboratory evaluation	No	Yes	5,00
Mathematics examination.	Work	No	Yes	20,00
Final examination	Written exam	Yes	Yes	60,00
TOTAL				100,00

Observations

Partial exams:
- resolution of mathematical exercises in teams: three or four during the term. The average of the scores is 10% of the final score.
- Mathematics examinations: three or four during the term. The average of the scores is 20% of the final score.
- Maxima: six on-line tests during the term. The average of the scores is 5% of the final score.
- Maxima examination: on-line test. The score is 5% of the final score.
- Final examination: 60% of the final score.

Those students with a final score below 5, will have to take the final examination in September. Its score (60%) will be added to the points obtained during the term.
In addition to this examination, the students can take a Maxima written test and/or a written examination of mathematical exercises and modify the points obtained during the term in the Maxima final test and the mathematics examinations.

Observations for part-time students

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8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC

1. Barbolla, R. y Sanz, P. (1998). Álgebra lineal y teoría de matrices. Ed. Prentice Hall.
2. Bradley, G. L. y Smith, K. J. (1998). Cálculo de una variable, I. Ed. Prentice Hall.
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4. Caballero, R. E., Calderón, S. y Galache, T. P. (2000). Matemáticas aplicadas a la economía y a la empresa. 434 ejercicios resueltos y comentados. Ed. Pirámide
5. Granero Rodríguez, F. (1991). Ejercicios y problemas de cálculo. Ed. Tebar-Flores.
6. Grossman, S. I. (1997). Álgebra lineal. Ed. McGraw-Hill.
7. Hernández, E. (1999). Álgebra y geometría. Ed. Addison-Wesley/U.A.M.
8. Hoffmann, L. D. y Bradley, G. L. (1998). Cálculo para administración, economía y ciencias sociales. Ed. McGraw-Hill.
9. Kolman, B. (1999). Álgebra lineal con aplicaciones y Matlab. Ed. Prentice Hall.
10. Kolman, B. y Hill, D. R. (2006). Álgebra lineal. Ed. Pearson Educación de México.
11. Martínez Salas, J. (1992). Elementos de matemáticas. Ed. Lex Nova.
12. San Millán, M. A. y Viejo, F. (1992). Introducción a la Economía Matemática. Ed. Pirámide.
13. Sanz, P., Vázquez, F. J. y Ortega, P. (1998). Álgebra lineal. Cuestiones, ejercicios y tratamiento en Derive(R). Ed. Prentice Hall.
14. Sanz, P. y Vázquez, F. J. (2013). Álgebra lineal. 450 cuestiones y problemas resueltos. Ibergaceta, D. L.
15. Sydsaeter, K., Hammond, P. y Carvajal, A. (2012). Matemáticas para el análisis económico, 2ª ed. Ed. Pearson Educación.