COURSE OUTLINE

1. GENERAL INFORMATION

FACULTY	ECONOMY AND MANAGEMENT
DEPARTMENT	ORGANIZATIONS MANAGEMENT, MARKETING AND TOURISM
LEVEL OF STUDY	UNDERGRADUATE
COURSE CODE	1605-210104	**SEMESTER**	1st
TITLE	MATHEMATICS

Autonomous Teaching Activities	WEEKLY TEACHING HOURS	CREDITS
Lectures and Practice Exercises	3	5

COURSE TYPE	GENERAL BACKGROUND
PREREQUISITE COURSES	NONE
TEACHING LANGUAGE	GREEK AND ENGLISH (ERASMUS STUDENTS)
COURSE OFFERED TO ERASMUS STUDENTS	YES
COURSE WEBPAGE (URL)	

2. LEARNING OUTCOMES

Learning outcomes

The purpose of the course is to allow young students to acquire the basic skills, knowledge, and skills in the use of mathematical tools that will help them in their studies in the next semesters, but also at the postgraduate level. Another goal is to homogenize the audience in terms of the level of knowledge of mathematics so that all freshmen can respond to their studies even though they are introduced from different directions.

The learning objectives of the course are as follows:

1. KNOWLEDGE: familiarity with basic knowledge of mathematics, and describe mathematical models- knowledge of the basic elements of algebra and their definition

2. UNDERSTANDING: the students can distinguish the types of mathematical problems in different fields of management science - understanding and interpretation of mathematical transformations

3. APPLICATION: the students can calculate with mathematical tools the representation of their problems schematically which to interpret

4. ANALYSIS: the students can analyze complex models into simpler ones and design the solution of each

5. COMPOSITION: the students can compose from solving simpler mathematical models more complex so that they can assist management in decision making by giving explanations for data processing

6. EVALUATION: the students will be able to compare qualitatively and quickly complex mathematical problems and determine their solutions.

General Skills
• Search, analysis, and synthesis of data and information using the necessary technologies • Decision making • Autonomous work • Work in an interdisciplinary environment • Production of new research ideas • Promotion of free, creative, and inductive thinking

3. **COURSE CONTENT**

Theory:
• 1. Introduction to mathematics
• 2. The concept of variable
• 3. The concept and handling of equations
• 4. The concept and handling of inequalities
• 5. Graphic illustration of linear equations and inequalities
• 6. Systems of equations and inequalities
• 7. Non-linear functions and applications
• 8. Multivariate functions
• 9. Production and recognition of extremes (applications of extremes in management and economics)
• 10. Integration
• 11. Progress Series
  12. Problem analysis
  13. Synthesis of problems

4. **TEACHING AND LEARNING METHODS - ASSESSMENT**

TEACHING METHOD	In the classroom, Face to Face teaching, Distance learning with modern and asynchronous tools.
ICT USE	Use of ICT in teaching (Moodle, office, etc.) in teaching (projections and slide shows) as well as in communication with students.
TEACHING ORGANIZATION	<table><tr><th>Activities</th><th>Working Load per Semester</th></tr><tr><td>Lectures</td><td>39</td></tr><tr><td>Tutorial Exercises</td><td>50</td></tr><tr><td>Field application exercises</td><td>20</td></tr><tr><td>Thesis writing</td><td>41</td></tr><tr><td>Total</td><td>150</td></tr></table>
ASSESSMENT	The language of assessment is Greek and may be English for foreign students (students from exchange programs). As a formative method of assessment can be the elaboration of assignments by students which they submit on intermediate dates of the semester. Concluding assessment uses written or online tests at

| | the end of the semester, which may include multiple-choice, short-answer, extended-answer, or correct-answer questions. |
| | The final grade is the sum of the formative and concluding assessments of the students. The evaluation criteria have to do on the one hand with the assignments to the extent that the students proceed to the elaboration of the assignment and carry out the intermediate technical requirements in the final examination in the achievement of the Learning Outcomes described above. For each L.O. the grade is distinguished next to the question and is known to the students. After the issuance of the assessment grades, students can come during office hours to see their writing if they wish. |

5. REFERENCES

-Suggested bibliography:

1. Mathematics of Economics and Management Sciences
Book Code in Eudoxus: 68373069
Edition: 1/2017
Authors: JacquesIan
ISBN: 9789963274338
Type: Book
Distributor (Publisher): BROKEN HILL PUBLISHERS LTD

2. Mathematics
Code in Eudoxus: 50659262
Edition: 2nd edition / 2015
Authors: BradleyTeresa
ISBN: 978-960-586-084-4
Type: Book
Distributor (Publisher): KRITIKI PUBLICATIONS SA

Related scientific journals