



COURSE DESCRIPTION

1. GENERAL

SCHOOL	ECONOMIC SCIENCES		
DEPARTMENT	TOURISM		
LEVEL	Undergraduate		
COURSE CODE	MAT120	SEMESTER	2 nd
COURSE TITLE	Financial Mathematics		
INDEPENDENT TEACHING ACTIVITIES	WEEKLY TEACHING HOURS	ECTS	
Lectures, Tutoring Lectures	4	5	
COURSE CATEGORY	Specific Background		
COURSE TYPE	Elective		
PREREQUISITES	-		
LANGUAGE OF TEACHING AND EXAMINATIONS	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS			
URL	https://tourism.ionio.gr/en/undergraduate-studies/courses/1167/		
ECLASS	https://opencourses.ionio.gr/courses/DT0137/		

2. TEACHING RESULTS

Teaching Results
Upon successful completion of the course the student will have acquired knowledge and skills to: <ul style="list-style-type: none">• understand the time value of money, interest rates and the application of simple and compound interest techniques to financial transactions• make calculations on loan problems and loan repayment• understand the money and capital markets• understand the financial implications of banking and financial transactions• understand the methodology of financial mathematics and their importance in investment decision making.
General Skills

3. CONTENT

Financial mathematics is the branch of Mathematics that has its object the study and the solution of problems that arise in economic and commercial transactions. The deepening of their knowledge becomes imperative, in the context of mobility and activity of the wider business and financial environment, which includes tourism companies. Financial mathematics is a key tool for choosing the most appropriate way of lending and investing for companies operating in the tourism industry.

Week 1

Fundamental financial concepts

Week 2

Money and capital markets

Week 3

Simple interest



Week 4

Discount with simple interest

Week 5

Credit securities equivalence

Week 6

Compound interest

Week 7

Cashflow patterns - Overdue payments

Week 8

Cashflow patterns- Advance payments

Week 9

Loan Types and repayment

Week 10

Mortgages

Week 11

Bonds

Week 12

Investment Decision Making

Week 13

Portfolio Theory

4. TEACHING AND LEARNING METHODS - EVALUATION

TEACHING METHOD	Lectures										
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Use of ICT in teaching Learning support through the electronic platform e-class <i>Use of ICT to communicate with students</i>										
TEACHING STRUCTURE	<table> <tbody> <tr> <td>Activity</td> <td>Semester Workload</td> </tr> <tr> <td>Lectures</td> <td>26</td> </tr> <tr> <td>Tutoring Lectures</td> <td>26</td> </tr> <tr> <td>Literature Study and Analysis</td> <td>73</td> </tr> <tr> <td>Course Total (ECTS: 5)</td> <td>125</td> </tr> </tbody> </table>	Activity	Semester Workload	Lectures	26	Tutoring Lectures	26	Literature Study and Analysis	73	Course Total (ECTS: 5)	125
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Course Total (ECTS: 5)	125										
EVALUATION OF STUDENTS	<p>Written examination</p> <ul style="list-style-type: none"> • Problem solving • Short answer questions • Multiple choice questions <p>The evaluation criteria are made known to the students at</p>										



the beginning of the course.

5. BIBLIOGRAPHY

- Financial Mathematics, 2016, A. Kiochos, C. Beneki, P. Kiochos, Eleni Kiochou Publications.
- Basic Principles of Financial Mathematics, 2018, Nikolaos Halidias, BROKEN HILL PUBLISHERS LTD PUBLICATIONS
- Financial Mathematics, 2004, Giannis Kougias, Dimitris Georgiou, NEW TECHNOLOGIES PUBLICATIONS PRIVATE CAPITAL COMPANY