

COURSE OUTLINE

1. GENERAL

SCHOOL:	BUSINESS AND ECONOMICS		
DEPARTMENT	BUSINESS ADMINISTRATION		
DIVISION	TOURISM AND HOSPITALITY MANAGEMENT		
LEVEL OF STUDY	UNDERGRADUATE		
COURSE UNIT CODE	3101105	SEMESTER OF STUDY	1
COURSE TITLE	BUSINESS MATHEMATICS		
COURSEWORK BREAKDOWN		TEACHING WEEKLY HOURS	ECTS Credits
Lectures, Laboratory exercises, case studies		5	6
COURSE UNIT TYPE	General Background Course		
PREREQUISITES :			
LANGUAGE OF INSTRUCTION/EXAMS:	GREEK		
COURSE DELIVERED TO ERASMUS STUDENTS	YES		
MODULE WEB PAGE (URL)	http://moodle.teipir.gr/course/view.php?id=71		

2. LEARNING OUTCOMES

Learning Outcomes

The aim of the course is to introduce students to the basic concepts of interest and interest rate. Moreover the student will learn to apply basic rules of differential and integral calculus in financial functions.

Upon successful completion of the course students should be able to:

- develop applications of the techniques of simple and compound interest on financial -economic transactions
- recognize the importance of annuities and must be able to calculate the present and final value of lapsed, advanced and Enduring annuity
- use basic principles of differential and calculus in financial functions and interpret the results
- use basic principles of integral calculus in order to solve economic problems and interpret the results

General Skills

- Search, analysis and synthesis of data with the use of new technologies
- Teamwork
- Decision-making
- Planning and management of projects

3. COURSE CONTENTS

Rate, simple interest.

Bill replacement Compound Interest Annuities Definition derivative Study economic functions through derivatives Rules of integration Usage of integrals in order to study economic problems #
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4. TEACHING METHODS - ASSESSMENT

MODE OF DELIVERY	In-Class	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGY	Support of the learning process through the LMS platform of PUAS, Use of \varnothing "E° E~ 1## ° -°, # 1 ,# 16E	
TEACHING METHODS	Method description	Semester Workload
	Lectures	39
	Presentation of Case Studies, Class Discussions	26
	Laboratory exercises	15
	Independent and Directed Learning	70
	TOTAL	150
+ASSESSMENT METHODS	<p>I. Final Written Exam (80%) (Summative Evaluation) includes: - Multiple choice questions or true/false questions - Short answer questions <u>Evaluation Objective:</u> To understand the fundamentals of the course. <u>Evaluation Criteria:</u> Comprehensiveness, accuracy, and critical evaluation.</p> <p>II. Multiple Choice Test (20%) (Formative Evaluation) Concerns issues covered by lectures. <u>Evaluation Objective:</u> Examination of students' progress in relation to learning outcomes, feedback and fine tuning of the course lectures. <u>Evaluation Criteria:</u> Comprehensiveness, accuracy, and critical evaluation.</p> <p>Evaluation criteria are explicitly referred on the site of the course for each learning activity.</p>	

5. RESOURCES

<p>REFERENCES Chiang A., Wainwright K., (2005) Magraw Hill Company Cuthbertson K. (1996) <i>Quantitative Financial Economics stocks, bonds and foreign exchange</i> Wiley Hands D Wade (2004) <i>Introductory Mathematical Economics</i> Oxford University Press Martin A., Norman B., (2008). <i>Mathematics for Economics and Finance</i> Campridge university press</p>

Sydsaeter K. and Hammond P., (2002). Essential Mathematics for economic analysis Prentise Hall

JOURNALS

Journal of financial mathematics

Journal of financial economis and mathematics

Siam journal of financial mathematics

Mathematical finance