

COURSE OUTLINE: FINANCIAL MATHEMATICS

(1) GENERAL

SCHOOL	School of Economic Sciences		
ACADEMIC UNIT	Department of Accounting and Finance		
LEVEL OF STUDIES	Undergraduate		
COURSE CODE	AF205	SEMESTER	2 nd
COURSE TITLE	Financial Mathematics		
INDEPENDENT TEACHING ACTIVITIES <i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i>		WEEKLY TEACHING HOURS	CREDITS
Lectures and exercises		3	5
TOTAL		3	5
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
COURSE TYPE <i>general background, special background, specialised general knowledge, skills development</i>	Scientific Field		
PREREQUISITE COURSES:	None		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes (upon request)		
COURSE WEBSITE (URL)			

(2) LEARNING OUTCOMES

<p>Learning outcomes <i>The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.</i></p> <p><i>Consult Appendix A</i></p> <ul style="list-style-type: none"> • <i>Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area</i> • <i>Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B</i> • <i>Guidelines for writing Learning Outcomes</i>
<p>The course covers basic financial mathematics such as percentage problems, time value of money, interest and interest rate, simple and compound capitalization, rands, discounting, evaluation.</p> <p>Upon successful completion of the course, students will acquire knowledge and skills that will allow them to:</p> <ol style="list-style-type: none"> 1. Have knowledge of basic concepts of the subject, understand the timeless value of money, the concept of inflation and interest rates. 2. Know the main products of money and capital markets. 3. Recognize the financial implications of banking and financial transactions. 4. Know the methodology of financial mathematics and its importance in comparison – evaluation of financial products.
<p>General Competences <i>Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?</i></p>

<i>Search for, analysis and synthesis of data and information, with the use of the necessary technology</i> <i>Adapting to new situations</i> <i>Decision-making</i> <i>Working independently</i> <i>Team work</i> <i>Working in an international environment</i> <i>Working in an interdisciplinary environment</i> <i>Production of new research ideas</i>	<i>Project planning and management</i> <i>Respect for difference and multiculturalism</i> <i>Respect for the natural environment</i> <i>Showing social, professional and ethical responsibility and sensitivity to gender issues</i> <i>Criticism and self-criticism</i> <i>Production of free, creative and inductive thinking</i> <i>Others...</i>
1. Search, analyse and synthesize data and information, using the necessary technologies. 2. Decision making. 3. Working Independently.	

(3) SYLLABUS

The course content includes: 1. Percentage and practical arithmetic problems 2. Time value of money 3. Interest and rate of interest 4. Simple and compound capitalization 5. Discounting 6. Expired and perpetual leases 7. Initial and final value of future rand 8. Variable rate loans 9. Evaluation of investments
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(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY <i>Face-to-face, Distance learning, etc.</i>	Face-to-face and distance learning	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i>	Support of the learning process using the electronic platform e-class	
TEACHING METHODS <i>The manner and methods of teaching are described in detail.</i> <i>Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.</i> <i>The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS</i>	Activity	Semester workload
	Lectures	15
	Working independently	50
	Exercises	30
	Independent study	55
	Total Course Semester Workload	150
STUDENT PERFORMANCE EVALUATION <i>Description of the evaluation procedure</i> <i>Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other</i>	Final written exams (100%) which includes: 1. Theoretical questions. 2. Solving problems related to methods valuation and based on quantitative data.	

*Specifically-defined evaluation criteria are given,
and if and where they are accessible to students.*

(5) SUGGESTED BIBLIOGRAPHY

1. Οικονομικά Μαθηματικά, Αστέριος Σόρμας - Νικόλαος Σαριαννίδης, εκδόσεις ΑΛΕΞΑΝΔΡΟΣ, 2018.
2. Οικονομικά Μαθηματικά & στοιχεία Τραπεζικών Εργασιών, Αποστολόπουλος Θεόδ. Εκδόσεις Σύγχρονη Εκδοτική.