COURSE OUTLINE

(1) GENERAL

SCHOOL	School of Finance and Statistics		
ACADEMIC UNIT	Department of Banking and Financial Management		
LEVEL OF STUDIES	**Undergraduate**		
COURSE CODE	**ΧΡΕΘΔ01**	SEMESTER	6th & 8th
COURSE TITLE	Special Topics in Risk Management		

INDEPENDENT TEACHING ACTIVITIES *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*	WEEKLY TEACHING HOURS	CREDITS
Lectures	4	7.5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Specialized and Skills Development
PREREQUISITE COURSES:	-
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	-

(2) LEARNING OUTCOMES

Learning outcomes

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.

Consult Appendix A

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

The main objective of the course is to delve into issues related to risk measurement and management. The course focuses on four types of risk: 1. Market risk, 2. Credit risk, 3. Liquidity risk, and 4. Interest rate risk.

Moreover, the course focuses on the concept of "rational decision making under risk". What does rational behavior mean when the investor acts under uncertainty? How can we determine whether or not the investor is rational?

General Competences

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?

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

- Team work

(3) SYLLABUS

The course will be divided into 4 main sections:

Section 1: Introduction

- The importance of risk measurement and management (for a financial institution, for supervisory authorities).
- The trade-off between returns and risk.

- Volatility: Definition. Methods of measurement (imputed volatility, volatility from historical data). Distributions of Changes in Financial Variables. The Constant Volatility Assumption and other models measuring it (GARCH). Predict future volatility using these models.
- Correlations: Definitions. Measuring correlation with different models (simple, GARCH).

Section 2: Market Risk

- Individual and cumulative risk management.
- The "Greek letters". Their interpretation and measurement.
- Risk Metrics. Value-at-Risk. Definition. Its relation to Expected Shortfall. The choice of parameters to calculate VaR. Marginal VaR, Incremental VaR and Component VaR. Back-testing. Stress-testing.

- The method of historical simulation. Accuracy of the method. Extensions (observation weighting, volatility update integration, bootstrap method).
- The model building approach for VaR (model building approach). Description of the methodology. Linear model. Weaknesses of the linear model. Quadratic model. Monte Carlo simulation.

Section 3: Credit Risk

- Credit ratings (from independent houses and internal).Το Z-score του Altman.
- Altman's Z-score.
- Bankruptcy probabilities based on historical data.
- Bankruptcy recovery rates.
- Differences in estimated default probabilities from historical data and bonds. Possible explanations for the differences.
- Credit VaR (description, method of calculation, calculation using Vasicek's model).
- Credit derivatives (description, function, use, valuation).

Section 4: Liquidity Risk and Interest Rate Risk •

Definition of liquidity risk.

- Problems created by liquidity risk in a credit institution.
- Exchange Agreements (Swaps).
- "Black Holes" of liquidity.
- Definition of interest rate risk.
- The relationship between interest rate risk and liquidity risk.
- Dealing with interest rate risk.

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to Face	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Use the internet to find relationships and phenomena related to the subject of the course	
TEACHING METHODS	*Activity*	*Semester workload*
	Lectures	52

The manner and methods of teaching are described in detail.		
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. *The student's study hours for each learning activity are given as well as the hours of nondirected study according to the principles of the ECTS*	.....	
	.....	
	.....	
	Course total	*187.5*
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, openended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	Greek, 80% Final Exam and 20% Presentation of project in class (optional)	

(5) ATTACHED BIBLIOGRAPHY

- Suggested bibliography:
- Related academic journals: