

## COURSE OUTLINE

### (1) GENERAL INFORMATION

<b>FACULTY / SCHOOL</b>	MARITIME AND INDUSTRIAL STUDIES		
<b>DEPARTMENT</b>	MARITIME STUDIES		
<b>LEVEL OF STUDY</b>	UNDERGRADUATE		
<b>COURSE UNIT CODE</b>	NAAFT45	<b>SEMESTER</b>	SPRING SEMESTER (OPTIONAL)
<b>COURSE TITLE</b>	RISK MANAGEMENT IN SHIPPING AND TRANSPORT		
<b>INSTRUCTOR'S NAME</b>	DR. ELEFThERIOS SDOUKOPOULOS		
<b>INDEPENDENT TEACHING ACTIVITIES</b> <i>in case credits are awarded for separate components/parts of the course, e.g. in lectures, laboratory exercises, etc. If credits are awarded for the entire course, give the weekly teaching hours and the total credits</i>		<b>WEEKLY TEACHING HOURS</b>	<b>CREDITS</b>
		4	6
<i>Add rows if necessary. The organization of teaching and the teaching methods used are described in detail under section 4</i>			
<b>COURSE TYPE</b> <i>Background knowledge, Scientific expertise, General knowledge, Skills development,</i>	Scientific expertise		
<b>PREREQUISITE COURSES:</b>	No		
<b>LANGUAGE OF INTRODUCTION:</b>	English		
<b>LANGUAGE OF EXAMINATION/ASSESSMENT:</b>	English		
<b>THE COURSE IS OFFERED TO ERASMUS STUDENTS:</b>	Yes		
<b>COURSE WEBSITE (URL):</b>	eclass.unipi.gr		

### (2) LEARNING OUTCOMES

<p><b>Learning outcomes</b></p> <p><i>The course learning outcomes, specific knowledge, skills and competences of an appropriate (certain) level, which students will acquire upon successful completion of the course, are described in detail.</i></p> <p><i>It is necessary to consult:</i></p> <p><b>APPENDIX A</b></p> <ul style="list-style-type: none"> <li>• Description of the level of learning outcomes for each level of study, in accordance with the European Higher Education Qualifications' Framework.</li> <li>• Descriptive indicators for Levels 6, 7 &amp; 8 of the European Qualifications Framework for Lifelong Learning and</li> </ul> <p><b>APPENDIX B</b></p> <ul style="list-style-type: none"> <li>• Guidelines for writing Learning Outcomes</li> </ul>
<p>The course deepens students' knowledge and understanding of shipping risks. It provides a risk typology and introduces the basic principles of the risk assessment and management process before going into detail on the main types of shipping risks, presenting available methods, tools and strategies for their effective management.</p>

### General Competences

Taking into consideration the general competences that students/graduates must acquire (as those are described in the Diploma Supplement and are mentioned below), at which of the following does the course attendance aim?

Search for, analysis and synthesis of data and information by the use of appropriate technologies,

Adapting to new situations

Decision-making

Individual/Independent work

Group/Team work

Working in an international environment

Working in an interdisciplinary environment

Introduction of innovative research

Project planning and management

Respect for diversity and multiculturalism

Environmental awareness

Social, professional and ethical responsibility and sensitivity to gender issues

Critical thinking

Development of free, creative and inductive thinking

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(Other.....citizenship, spiritual freedom, social awareness, altruism, etc.)

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Upon completion of the course, it is expected that students will be able to:

- Identify and classify shipping risks, and recognize and monitor associated sources
- Organize and apply basic principles, concepts and terms of risk assessment and management
- Classify and select theories and methods for risk analysis
- Understand risk-return trade-offs
- Understand the wide range of shipping derivatives and derivative hedging
- Manage shipping-related risk exposures by evaluating the hedging effectiveness of shipping derivatives
- Structure and plan the implementation of shipping related risk management strategies.
- Apply advanced option trading strategies in shipping

### (3) COURSE CONTENT

- Introduction to shipping risk  
*Risk typology, sources, risk comparison across different shipping and transport markets*
- The risk assessment and management process  
*Introduction to derivative instruments, forwards / futures / options & swaps, exchange-trading vs over-the-counter*
- Freight risk management
- Options on freight rates: Pricing and risk management
- Value-at-risk in shipping and freight risk management
- Bunker risk analysis and management
- Financial and interest rate risk
- Credit risk measurement and management
- Ship price risk and risk management

### (4) TEACHING METHODS – ASSESSMENT

<b>MODES OF DELIVERY</b> <i>Face-to-face, in-class lecturing, distance teaching and distance learning, etc.</i>	Face-to-face (in-class lecturing)	
<b>USE OF INFORMATION AND COMMUNICATION TECHNOLOGY</b> <i>Use of ICT in teaching, Laboratory Education, Communication with Students</i>	Use of e-class	
<b>COURSE DESIGN</b> <i>Description of teaching techniques, practices and methods: Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, Internship, Art Workshop, Interactive</i>	<b>Activity/Method</b>	<b>Semester workload</b>
	Lectures	52
	Project-Assignment	18
	Non-guided study	80

<p><i>teaching, Educational visits, projects, Essay writing, Artistic creativity etc.</i></p> <p><i>The study hours for each learning activity as well as the hours of self-study are given following the principles of ECTS.</i></p>	<p><b>Total</b></p>	<p><b>150</b></p>
<p><b>STUDENT PERFORMANCE EVALUATION/ASSESSMENT METHODS</b></p> <p><i>Detailed description of the evaluation procedures:</i></p> <p><i>Language of evaluation, assessment methods, formative or summative (conclusive), multiple choice tests, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral exam, presentation, laboratory work, other....,etc.</i></p> <p><i>Specifically defined evaluation criteria are stated, as well as if and where they are accessible by the students</i></p>	<p>Final exam (80%) Project-Assignment (20%)</p>	

### (5) SUGGESTED BIBLIOGRAPHY

- *Suggested bibliography:*

- Kavussanos, M.G., Tsouknidis, D.A. & Visvikis, I.D. (2021). *Freight Derivatives and Risk Management in Shipping*. 2<sup>nd</sup> Edition, Routledge.
- Alizadeh, A.H. & Nomikos, N.K. (2009). *Shipping Derivatives and Risk Management*. Palgrave Macmillan.

- *Other key references:*

- Kavussanos, M.G. & Tsouknidis D.A. (2019). Credit risk analysis, measurement and management in the Shipping Industry, in P. M. Panayides (Ed), *The Routledge Handbook of Maritime Management*, Routledge: London.
- Zhang, Y. & Shen, X. (2014). The Strategies for Market Risk Management in International Shipping. *Management Studies*, 2:7, 447-464.
- Kavussanos, M. G. (2013). Business Risk Measurement and Management in the Cargo Carrying Sector of the Shipping Industry – An Update, in C. Grammenos (Ed), *The Handbook of Maritime Economics and Business*, Taylor & Francis Group: London.
- Kavussanos, M. G. & Visvikis, I.D. (2011). *Theory and Practice of Shipping Freight Derivatives*, Risk Books.