### **COURSE OUTLINE**

# (1) General information

FACULTY/SCHOOL	Maritime and Industrial Studies		
DEPARTMENT	Maritime Studies		
LEVEL OF STUDY	Undergraduate		
COURSE UNIT CODE	NA 702 SEMESTER 7th		
COURSE TITLE	Shipping Finance		
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		WEEKLY TEACHNG HOURS	CREDITS
		4	6
Add rows if necessary. The organization of teaching and the teaching methods used are described in detail under section 4			
COURSE TYPE  Background knowledge,  Scientific expertise,  General Knowledge,  Skills Development	Scientific Expertise		
PREREQUISITE COURSES:	Introduction to Accounting		
LANGUAGE OF INSTRUCTION:	Greek		
LANGUAGE OF EXAMINATION/ASSESSMENT:	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	Yes		
COURSE WEBSITE (URL)			

# (2) LEARNING OUTCOMES

### **Learning Outcomes**

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. It is necessary to consult:

#### APPENDIX A

- Description of the level of learning outcomes for each level of study, in accordance with the European Higher Education Qualifications' Framework.
- Descriptive indicators for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and

# APPENDIX B

• Guidelines for writing Learning Outcomes

The major objective of this module is to examine comprehensively the field of maritime investments and finance. The subjects covered are: (a) characteristics of shipping investments, (b) shipping

market cycles, (c) feasibility of investments utilizing costs, revenues and cash flows analysis, (d) risk, return and shipping company economics, (e) economics of shipbuilding and scrapping, (f) shipping finance, and (g) credit risk in shipping finance.

The learning tools of the module include a combination of relevant theoretical concepts, empirical examples, and discussion questions.

It is expected that upon completion of the module, students will fully understand the main principles of maritime investments and their relation to the maritime environment, the main methods of shipping finance, and the credit risk assessment methods in the maritime investments and finance.

After the completion of this session students will be able to:

- Determine and discuss the main unique characteristics of the shipping markets
- Describe in detail the main sources of finance for shipping investments
- Analyze in detail the characteristics of shipping bank loans as the main sources of shipping finance over time
- Describe the departments of a shipping company and their main operations
- State and discuss the stages and the characteristics of the shipping cycle
- Describe in detail the main characteristics of the shipping investments
- Analyse the risks related with a shipping investment
- Distinguish how the shipping cycle amplifies the risks of shipping investments
- Determine and analyse in-depth all the cost categories for an ocean going commercial vessel
- Describe in detail and provide examples for all the sub-components of each category of vessels' costs
- Analyze and compare the revenue of a vessel depending on the charter contract agreed
- Compute and analyse in-depth cash-flow at the vessel and year levels
- Compare and recommend among competing shipping investments or charter contracts
- Analyse in-depth costs, revenue and cash flow emanating from alternative ways to charter a vessel
- Assess the default risk of a shipping bank loan using 6 C's.
- Determine numerically and analyse vessel and annual cash flows which may be used for the repayment of a shipping bank loan
- Compare shipping bank loans with alternative sources of finance in shipping
- Analyze in depth the characteristics of a shipping bond issues, such as the its spread, coupon and seniority
- Compare shipping bonds with general corporate bonds and with alternative sources of finance in shipping, such as shipping bank loans and IPOs.
- Highlight the unique characteristics of a shipping company before and after being listed in a stock exchange and assess whether being listed forms a sources of finance with attractive terms

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 Project planning and management information by the use of appropriate Respect for diversity and multiculturalism

technologies, Environmental awareness

Adapting to new situations Social, professional and ethical responsibility and

Decision-making sensitivity to gender issues

Individual/Independent work Critical thinking

Group/Team work Development of free, creative and inductive thinking

Working in an international environment

Working in an interdisciplinary environment (Other......citizenship, spiritual freedom, social

Introduction of innovative research awareness, altruism etc.)

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

Adapting to new situations

**Decision-making** 

Project planning and management

Critical thinking

Development of free, creative and inductive thinking

## (3) COURSE CONTENT

#### Fundamentals of shipping markets

- How important is shipping for the global economy
- Shipping market segments and sub-segments
- Cyclicality and seasonality

### Introduction to shipping finance

- Sources of ship finance
- Bank financing, leasing, bonds, IPOs

Characteristics of shipping investments and risks

# Costs, revenue and cash flow (1)

- Operating costs
- Voyage costs
- Capital costs

# Maintenance costs

#### Costs, revenue and cash flow (2)

- The revenue the ship earns
- Methods of computing cash flows
- Voyage cash flow analysis
- Annual cash flow analysis

### Discounted cash flow analysis

# Costs, revenue and cash flow (3) and Case study HBS

- Time Charter Equivalent
- Investment appraisal using NPV and IRR
- Annuities

#### Amortization schedule of bank loans

#### **Shipping Investments Appraisal**

• Mutually exclusive investments

## Case study

# Shipping bank credit policy and shipping bank loans

- Principles of good lending
- Assessing a bank loan agreement

Types of shipping bank loans

Default risk models in shipping and assessing the default risk of Shipping Bank Loans

- Credit analysis in shipping
- Credit ratings in shipping Moody's, S&P, Fitch
- Estimation of Probabilities of Default

Shipping bonds and shipping IPO's

- Bonds as a source of shipping finance
- Shipping bond spreads determinants
- IPOs case studies

# (4) TEACHING METHODS--ASSESSMENT

MODES OF DELIVERY Face-to-face, in-class lecturing, distance teaching and distance learning etc. USE OF INFORMATION AND	Face-to-face  http://eclass.unipi.gr/cour	rses/NAS109
COMMUNICATION TECHNOLOGY Use of ICT in teaching, Laboratory Education, Communication with students		
COURSE DESIGN	Activity/Method	Semester workload
Description of teaching techniques,	Lectures	52
practices and methods: Lectures, seminars, laboratory practice, fieldwork, study and analysis	Non-guided study	98
of bibliography, tutorials, Internship,		
Art Workshop, Interactive teaching, Educational visits, projects, Essay		
writing, Artistic creativity, etc.		
The study hours for each learning activity as well as the hours of self-directed study are given following the principles of the ECTS.	Total	150
STUDENT PERFORMANCE EVALUATION/ASSESSMENT METHODS Detailed description of the evaluation procedures:	Written exam in the English language which will include essay type open questions, critical thinking questions and exercises.	
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, otheretc.	
Specifically defined evaluation criteria	
are stated, as well as if and where they are accessible by the students.	

# (5) SUGGESTED BIBLIOGRAPHY:

-Suggested bibliography:

International Handbook of Shipping Finance, 2016, Kavussanos and Visvikis (Editors), Palgrave

-Related academic journals:
Transportation Research Part E: Logistics and Transportation Review
Maritme Policy and Management
Maritime Economics & Logistics
Journal of Finance
Journal of Financial Economics
American Economic Review
Quarterly Journal of Economics