# COURSE OUTLINE

## (1) General information

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| **FACULTY/SCHOOL** | |
| **DEPARTMENT** | Department Of Maritime Studies |
| **LEVEL OF STUDY** | Undergraduate |

| **COURSE UNIT CODE** | NA55 | **SEMESTER** | Winter semester elective |
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| **COURSE TITLE** | Advanced Statistics |

| **INDEPENDENT TEACHING ACTIVITIES** *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** |
|---|---|---|
| **Lectures and Tutorials** | 4 | 6 |
| *Add rows if necessary. The organization of teaching and the teaching methods used are described in detail under section 4* | | |

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| **COURSE TYPE** *Background knowledge, Scientific expertise, General Knowledge, Skills Development* | *Scientific Expertise* |
| **PREREQUISITE COURSES:** | |
| **LANGUAGE OF INSTRUCTION:** | Greek |
| **LANGUAGE OF EXAMINATION/ASSESSMENT:** | |
| **THE COURSE IS OFFERED TO ERASMUS STUDENTS** | |
| **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*

*Upon completion of the course, the students will be able to:*
- *Understand linear regression.*
- *Understand polynomial regression.*
- *Perform forecasting.*

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

*Decision-making*
*Individual/Independent work*
*Group/Team work*
*Critical thinking*
*Development of free, creative and inductive thinking*

## (3) COURSE CONTENT

- Univariate linear regression.
- Multivariate linear regression.
- Polynomial regression.
- Time-series and forecasting.

## (4) TEACHING METHODS--ASSESSMENT

| MODES OF DELIVERY *Face-to-face, in-class lecturing, distance teaching and distance learning etc.* | *Face-to-face, in-class lecturing* | |
|---|---|---|
| USE OF INFORMATION AND COMMUNICATION TECHNOLOGY *Use of ICT in teaching, Laboratory Education, Communication with students* | *Use of ICT in teaching; use of eClass..* | |
| COURSE DESIGN *Description of teaching techniques, practices and methods:* *Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, Internship,* | *Activity/Method* | *Semester workload* |
| | Lectures | 52 |
| | Tutorials | 10 |
| | Coursework | 29 |
| | Study and analysis | 59 |

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| *Art Workshop, Interactive teaching, Educational visits, projects, Essay writing, Artistic creativity, etc.*<br><br>*The study hours for each learning activity as well as the hours of self-directed study are given following the principles of the ECTS.* | | |
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| | **Total** | 150 |

| STUDENT PERFORMANCE EVALUATION/ASSESSMENT METHODS<br>*Detailed description of the evaluation procedures:*<br><br>*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.*<br><br>*Specifically defined evaluation criteria are stated, as well as if and where they are accessible by the students.* | • Final written exam.<br>• Optional midterm test. |
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## (5) SUGGESTED BIBLIOGRAPHY:

-Suggested bibliography:

Statistics. J. Halikias. Ed. Rosili.

Statistics for Management and Economics. G. Keller.