

COURSE OUTLINE

1. GENERAL INFORMATION

SCHOOL	MARITIME AND INDUSTRIAL STUDIES		
DEPARTMENT	INDUSTRIAL MANAGEMENT AND TECHNOLOGY		
LEVEL OF STUDY	UNDERGRADUATE		
COURSE UNIT CODE	TEΠAP20	SEMESTER OF STUDY	7 th
COURSE TITLE	RESEARCH METHODOLOGY		
INDEPENDENT TEACHING ACTIVITIES <i>in case in which credits are awarded for separate components/parts of the course, e.g. in lectures, laboratory exercises, etc. If credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i>		WEEKLY TEACHING HOURS	CREDITS
Lectures, Workshop and Project		3	2.5
<i>Add rows if necessary. The organization of teaching and the teaching methods used are described in detail at section 4.</i>			
COURSE TYPE <i>general background, special background, specialized general knowledge, skills development</i>	Skills development		
PREREQUISITE COURSES:	None		
LANGUAGE OF INSTRUCTION and EXAMINATION/ASSESSMENT:	Greek / English (in ERASMUS class)		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	Yes		
COURSE WEBSITE (URL)			

2. LEARNING OUTCOMES

<p>LEARNING OUTCOMES</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. It is necessary to consult:</i></p> <p>APPENDIX A</p> <ul style="list-style-type: none"> • <i>Description of the level of learning outcomes for each qualifications' cycle, according to the European Higher Education Area's Qualification Framework.</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 aim of the course is to familiarize students with the main concepts of research methodology, the basic know-how for the drafting of small-scale scientific projects and the usual techniques and software used in writing, searching, results processing, data acquisition, referencing, categorization, etc. Also, students will develop the necessary skills to meet the requirements of structure, content, bibliography, appearance and presentation of a scientific work (paper, literature review, thesis, technical text, etc.).</p> <p>Using examples, case studies and relevant audiovisual material, students will be able to understand scientific texts as they develop skills related to:</p> <ul style="list-style-type: none"> • the use of language as the primary and essential communication tool with which scientific knowledge is transmitted from the author to the reader • the formulation of the problem to be investigated and the hypotheses regarding the possible causal factors that contribute to the problem, the decomposition of the problem into sub-units and parameters, the determination of the study limits regarding the problem and the methodological approach of the sub-units and parameters of the problem

- search techniques for data, knowledge and information
- the evaluation of bibliographic sources and data
- the effective use of IT tools (search software, results processing, data presentation, referencing and citations).
- the drafting and elaboration of a small-scale project (data/information search, organization of data/information, presentation, documentation, inference)
- writing texts in a scientifically correct way, presenting/analysing the topic of the work in all its pre-defined dimensions
- the application of ethics and morality in writing
- the documentation of the work so as to contribute to the advancement of knowledge on the subject presented
- the oral presentation of scientific work and/or technical study
- the organization, coordination and elaboration of group work (planning, assignment of roles, schedules, style harmonization, presentation)

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 aims

Search for, analysis and synthesis of data and information, by the use of technologies that are necessary according the case

Adapting to new situations

Decision-making

Independent work

Team work

Working in an international environment

Working in an interdisciplinary environment

Introduction of innovative research

Project planning and management

Respect for difference and multiculturalism

Environmental awareness

Social, professional and ethical responsibility and sensitivity to gender issues

Critical consciousness, criticism and self-criticism

Development of free, creative and inductive thinking

- Search for, analysis and synthesis of data and information, by the use of technologies that are necessary according the case
- Adapting to new situations
- Decision-making
- Independent work
- Team work
- Working in an international environment (ERASMUS)
- Working in an interdisciplinary environment (ERASMUS)
- Introduction of innovative research
- Respect for difference and multiculturalism
- Social, professional and ethical responsibility and sensitivity to gender issues
- Critical consciousness, criticism and self-criticism
- Development of free, creative and inductive thinking

2. COURSE CONTENT

The course covers the following sections:

- Principles of scientific text: structure, thematic framework, documentation, conclusions.
- Data / knowledge / information search: search engines, search methods, data organization and evaluation.
- Critical analysis of scientific texts.
- Writing rules: writing style, text size, important grammar rules, pictures, graphs and tables.
- Plagiarism issues: legal framework, academic ethics, types of plagiarism, methods of avoidance.
- Composition of a scientific text.
- Formulation of the problem to be investigated and the hypotheses regarding the possible causal factors that contribute to the problem, decomposition of the problem into sub-units and parameters, determination of the study limits regarding the problem and the methodological approach of the sub-units and parameters of the problem.

- Oral presentation techniques: purpose of presentations, preparation techniques, definition of the content and message of the presentation depending on the audience, presentation style, dynamic presentation techniques, mistakes, omissions and methods to avoid them, audiovisual techniques.
- Group work: organization, coordination and elaboration (planning, assignment of roles, schedules, style harmonization, presentation).
- Special topics of environmental management studies.
- Special topics of natural resource management studies
- Special issues of statistical studies and applications.
- Special issues of analytical methods in industry.
- Special issues of modern production technologies and applications.
- Special issues of corporate strategy and management.

A combination of teaching and learning methods will be used in order to actively involve students and emphasize on the practical application of the topics under consideration: lectures using audiovisual media, analysis and discussion of scientific texts and experiential (group) exercises. Students will also do group work.

In addition, articles, audiovisual lecture material, web addresses, useful information, exercises and case studies are posted at eclass.

3. TEACHING METHODS - ASSESSMENT

<p style="text-align: center;">TEACHING MODE</p> <p><i>Face-to-face, in-class lecturing, on distance teaching and distance learning etc.</i></p>	In-class lecturing															
<p style="text-align: center;">USE OF INFORMATION AND COMMUNICATION TECHNOLOGY</p> <p><i>Use of ICT in Teaching, Laboratory Education, Communication with students</i></p>	<p>Teaching: Lectures with audiovisual media, support of the learning process through the eclass platform.</p> <p>Communication with students: Face-to-face at office hours, email, eclass</p>															
<p style="text-align: center;">COURSE DESIGN</p> <p><i>Description of teaching techniques, practices and methods: Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, clinical practice, Art Workshop, Interactive teaching, Educational visits, project, Essay writing, Artistic creativity, etc.</i></p> <p><i>The study hours for each learning activity as well as the hours of non- directed study are given according to the principles of the ECTS</i></p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;"><i>Activity / Method</i></th> <th style="text-align: center;"><i>Semester Workload</i></th> </tr> </thead> <tbody> <tr> <td>Seminars</td> <td style="text-align: center;">13</td> </tr> <tr> <td>Workshop</td> <td style="text-align: center;">26</td> </tr> <tr> <td>Self-study of lecture material</td> <td style="text-align: center;">8</td> </tr> <tr> <td>Project</td> <td style="text-align: center;">15</td> </tr> <tr> <td>Counselling</td> <td style="text-align: center;">0.5</td> </tr> <tr> <td>Course Total</td> <td style="text-align: center;">62.5</td> </tr> </tbody> </table>		<i>Activity / Method</i>	<i>Semester Workload</i>	Seminars	13	Workshop	26	Self-study of lecture material	8	Project	15	Counselling	0.5	Course Total	62.5
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<p style="text-align: center;">STUDENT PERFORMANCE EVALUATION/ASSESSMENT METHODS</p> <p><i>Detailed description of the evaluation procedures: Language of evaluation, assessment methods, formative or summative (conclusive), multiple choice questionnaires, short- answer questions, open-ended questions, problem solving, written work, Essay/report, oral exam, public presentation, laboratory work, art interpretation, other.....etc</i></p>	<p>Language of exams: Greek / English (in ERASMUS class)</p> <p>Assessment Methods: Course material is posted at eclass during the semester. The final grade of the course is as follows:</p> <ul style="list-style-type: none"> • 30% from the participation of students in course activities • 70% from the elaboration and presentation of team (individual by exception) project <p>In case of failure, in the September re-sits, the grade of the course is formed by 100% from the elaboration and presentation of individual work.</p>															

<p><i>Evaluation criteria are specifically defined and given as well as if and where they are reported and accessible to students.</i></p>	<p>It is noted that the grade of the course is not included in the final average mark of the degree. Students are examined with a pass / fail grade.</p> <p>The evaluation of students with special learning difficulties in writing and reading (as certified and qualified by a competent institution) is performed according to the relevant procedure decided by the Department Assembly.</p> <p>Notification of the Assessment Criteria: The evaluation criteria are made known during the first lecture and are clearly stated on the course website and/or eclass. Students have the opportunity to receive explanations about the grade they received.</p>
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4. SUGGESTED BIBLIOGRAPHY

<p><i>- Bibliography</i></p> <ul style="list-style-type: none"> • Book [68391268]: E. Evdoridou, Th. Karakasidis, Academic Writing, 3rd Edition, A. Tziola & Sons Publications, 2017, ISBN: 978-960-418-560-3 [<i>in Greek</i>] • Book [68369809]: I. Mantzaris, Scientific Research, 2nd Edition, Maria Kapourtzoudi Publications, 2017, ISBN: 978-618-83394-2-2 [<i>in Greek</i>] <p><i>-Journals:</i></p> <ul style="list-style-type: none"> • Journal of Knowledge Management • Research Policy • Journal of Environmental Management • The International Journal of Technology, Knowledge and Society <p><i>-Lecture notes</i></p> <p><i>-Workshop material</i></p>
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