

## COURSE OUTLINE

### 1. GENERAL

<b>SCHOOL</b>	AGRICULTURAL SCIENCES		
<b>ACADEMIC UNIT</b>	ANIMAL PRODUCTION, FISHERIES & AQUACULTURE		
<b>LEVEL OF STUDIES</b>	UNDERGRADUATE		
<b>COURSE CODE</b>	AS_102	<b>SEMESTER</b>	1 <sup>st</sup>
<b>COURSE TITLE</b>	OCEANOGRAPHY		
<b>INDEPENDENT TEACHING ACTIVITIES</b> <i>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</i>		<b>WEEKLY TEACHING HOURS</b>	<b>CREDITS</b>
(the credits are awarded for the whole course)		3	5
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
<b>COURSE TYPE</b> <i>general background, special background, specialised general knowledge, skills development</i>	Special Background		
<b>PREREQUISITE COURSES:</b>	There are no prerequisite courses.		
<b>LANGUAGE OF INSTRUCTION and EXAMINATIONS:</b>	Greek. Teaching may be performed in English in case of foreign students		
<b>IS THE COURSE OFFERED TO ERASMUS STUDENTS</b>	YES		
<b>COURSE WEBSITE (URL)</b>	<a href="https://eclass.upatras.gr/courses/AS127/">https://eclass.upatras.gr/courses/AS127/</a>		

### 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*

By the end of this course the student will be able to:

- analyze and evaluate scientific data to create a conclusion about oceanographic processes
- predict distribution of organisms based on physical and chemical hydrographic data
- provide examples of the interdisciplinary nature of oceanography
- assess news with respect to ocean events or oceanography in general
- articulate scientific arguments for why the oceans matter
- explain interrelationships of oceans to other Earth Systems
- evaluate the interaction between humans and the ocean
- explain formation of seafloor features
- describe ocean chemistry and processes of nutrient cycling
- describe the major surface and deep currents in the oceans and explain their causes
- analyze the movement of tectonic plates, MOR and subduction zone

### 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*

*Project planning and management*

*Adapting to new situations*

*Respect for difference and multiculturalism*

*Decision-making*

*Respect for the natural environment*

*Working independently*

*Showing social, professional and ethical responsibility and sensitivity to gender issues*

*Team work*

*Criticism and self-criticism*

*Working in an international environment*

*Production of free, creative and inductive thinking*

*Working in an interdisciplinary environment*

*.....*

*Production of new research ideas*

*Others...*

Respect for the natural environment

Criticism and self-criticism

Production of free, creative and inductive thinking

### 3. SYLLABUS

#### Lectures

- Introduction, concepts, historical review, Oceanography in Greece.
- Tectonic plates.
- Sediments.
- The chemistry of seawater.
- Atmospheric circulation.
- The circulation of water and sea currents.
- Sea waves. Tides.
- Marine ecosystems.
- Mediterranean and Greek seas.
- Pollution of the seas.

#### 4. TEACHING and LEARNING METHODS - EVALUATION

<p style="text-align: center;"><b>DELIVERY</b> <i>Face-to-face, Distance learning, etc.</i></p>	Face to face and distance learning	
<p style="text-align: center;"><b>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY</b> <i>Use of ICT in teaching, laboratory education, communication with students</i></p>	<ul style="list-style-type: none"> <li>• Use of ICT (powerpoint) in teaching</li> <li>• Use of ICT in Student Communication (Learning Support through the e-class platform)</li> </ul>	
<p style="text-align: center;"><b>TEACHING METHODS</b></p> <p><i>The manner and methods of teaching are described in detail.</i></p> <p><i>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.</i></p> <p><i>The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS</i></p>	<b>Activity</b>	<b>Semester workload</b>
	Lectures	36
	Writing and presentation of a brief project	25
	Private study time of the students for the lab preparation and final examination	61
	final examination	3
Course total	<b>125</b>	
<p style="text-align: center;"><b>STUDENT PERFORMANCE EVALUATION</b></p> <p><i>Description of the evaluation procedure</i></p> <p><i>Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other</i></p> <p><i>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i></p>	<p>Greek language is used. For foreign students (e.g. Erasmus students) it can be done in English</p> <ol style="list-style-type: none"> <li>1. Written final exam (A)</li> <li>2. Individual work (B)</li> <li>3. Exercise (C)</li> </ol> <p><i>Each case is graded on a scale of 0-10</i></p> <p>Final grade (FG):  <math>FG = 0.5A + 0.25B + 0.25C</math></p> <p><i>Minimum passing grade: 5 (Grade: 0-10)</i></p>	

#### 5. ATTACHED BIBLIOGRAPHY

<ul style="list-style-type: none"> <li>• Paul R. Pinet Invitation to Oceanography, 7th Edition</li> </ul>
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