(1) GENERAL

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>NATURAL SCIENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACADEMIC UNIT</td>
<td>BIOLOGY</td>
</tr>
<tr>
<td>LEVEL OF STUDIES</td>
<td>UNDERGRADUATE</td>
</tr>
<tr>
<td>COURSE CODE</td>
<td>BIO_ZA1</td>
</tr>
<tr>
<td>SEMESTER</td>
<td>6/8</td>
</tr>
<tr>
<td>COURSE TITLE</td>
<td>MARINE ECOLOGY</td>
</tr>
</tbody>
</table>

INDEPENDENT TEACHING ACTIVITIES
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

<table>
<thead>
<tr>
<th>Weekly Teaching Hours</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lectures, Laboratory Exercises, Field Work Exercise</td>
<td>2 (lec) + 3 (lab)</td>
</tr>
</tbody>
</table>

Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).

<table>
<thead>
<tr>
<th>COURSE TYPE</th>
<th>Field of Science</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Skills Development</td>
</tr>
</tbody>
</table>

PREREQUISITE COURSES: NO

LANGUAGE OF INSTRUCTION and EXAMINATIONS: Greek

IS THE COURSE OFFERED TO ERASMUS STUDENTS: Yes (in English)

COURSE WEBSITE (URL) https://eclass.upatras.gr/courses/BIO224/

(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

In the end of the course the student should be able to:
1. understand the principles of physical and chemical oceanography
2. discuss issues relevant to the processes regulating primary and microbial productivity
3. comprehend the structure and functioning of the pelagic and the benthic environment and their interaction
4. perceive the principles of fisheries biology
5. comprehend the role of human-induced effects on the marine environment
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
- Adapting to new situations
- Decision-making
- Working independently
- Team work
- Working in an international environment
- Working in an interdisciplinary environment
- Production of new research ideas
- Project planning and management
- Respect for difference and multiculturalism
- Respect for the natural environment
- Showing social, professional and ethical responsibility and sensitivity to gender issues
- Criticism and self-criticism
- Production of free, creative and inductive thinking

By the end of this course the student will have developed the following General Abilities:

1. Autonomous (Independent) work
2. Group work
3. Generation of new research ideas
4. Respect for the natural environment
5. Development of free, creative and inductive thinking

Additionally, by the end of this course the student will have developed the following Special skills/competences:

1. ability to measure basic environmental parameters
2. knowledge of methods for the collection of plankton and benthic samples
3. ability to identify basic taxa from plankton and benthos
4. ability to evaluate the effects of environmental characteristics on the distribution of marine organisms

(3) SYLLABUS

## TEACHING and LEARNING METHODS - EVALUATION

<table>
<thead>
<tr>
<th>DELIVERY</th>
<th>Face-to-face, Distance learning, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY</td>
<td>Powerpoint presentations. Support of educational procedure through the use of the e-class electronic platform</td>
</tr>
</tbody>
</table>

### TEACHING METHODS

The manner and methods of teaching are described in detail. 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.

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.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Semester workload</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lectures (13 weeks x 2 hours per week)</td>
<td>26</td>
</tr>
<tr>
<td>Laboratory exercises (6 weeks x 3 hours per week)</td>
<td>18</td>
</tr>
<tr>
<td>Field exercise</td>
<td>6</td>
</tr>
<tr>
<td>Home study</td>
<td>100</td>
</tr>
</tbody>
</table>

Course total 150

### STUDENT PERFORMANCE EVALUATION

Description of the evaluation procedure

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, etc.

Specifically-defined evaluation criteria are given, and if and where they are accessible to students.

Written exams (at the semester’s end), in Course theory and lab. Language: Greek. Exams through short answer questions.

Final Course Grade: Theory Grade x 0.9 + Laboratory Grade x 0.1

Grading scale: 1-10. Passing grade: 5

Grading: 3 correspond to ECTS grade F. Grade 4 corresponds to ECTS grade FX.

Passing grades correspond to ECTS grades as follows: 5=E, 6=D, 7=C, 8=B, 9=A.

### ATTACHED BIBLIOGRAPHY