

## 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_803	<b>SEMESTER</b>	8 <sup>th</sup>
<b>COURSE TITLE</b>	REARING ACTIVITIES & PROTECTION OF THE ENVIRONMENT		
<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 (Lectures)	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>	Specialized General Knowledge		
<b>PREREQUISITE COURSES:</b>	There are no prerequisite courses. However, the students should already have a basic knowledge of Ecology, Zootechnology and Aquaculture		
<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>			

### 2. LEARNING OUTCOMES

<p><b>Learning outcomes</b></p> <p><i>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.</i></p> <p><i>Consult Appendix A</i></p> <ul style="list-style-type: none"> <li>• <i>Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area</i></li> <li>• <i>Descriptors for Levels 6, 7 &amp; 8 of the European Qualifications Framework for Lifelong Learning and Appendix B</i></li> <li>• <i>Guidelines for writing Learning Outcomes</i></li> </ul>
<p>By the end of this course the student will be able to:</p> <ul style="list-style-type: none"> <li>▪ Know, describe and evaluate the impact of human production activities on the environment.</li> <li>▪ Recognize the correct practices for the elimination of the environmental disturbance according to the object</li> <li>▪ Know and understand the legislative framework</li> <li>▪ Understand the position and role of the productive activities of all categories in the context of integrated environmental management.</li> </ul>

### 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...
	.....

- Search for, analysis and synthesis of data and information, with the use of the necessary technology
- Working independently
- Team work
- Decision making
- Project planning & management
- Respect for the natural environment
- Criticism and self-criticism
- Production of free, creative and inductive thinking

### 3. SYLLABUS

The course is focusing on the following:

- Environmental impacts of productive activities with an emphasis on aquaculture systems (semi-intensive systems, closed circuits, inland and marine water systems)
- Genetic effects, imported species, disease transmission, genetic identification of farmed species, genetic contamination.
- Microbiological load in the environment. Organic Pollution. Effect of organic load, chemical pollution, use of wild populations, effect on wild populations.
- Impact on public health.
- Interaction of aquaculture with fishing. Effect on benthic communities, fish aggregations in cages, wild fish ethology. The Role of Aquaculture in the Coastal Zone: Management and Legislative Framework. Elaboration of Environmental Impact Studies.
- Glossary.

### 4. TEACHING and LEARNING METHODS - EVALUATION

<b>DELIVERY</b> <i>Face-to-face, Distance learning, etc.</i>	Face to face. During the course, students are asked to write and present a bibliography project
<b>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY</b> <i>Use of ICT in teaching, laboratory education, communication with</i>	<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>

<i>students</i>															
<p><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>	<table border="1"> <thead> <tr> <th style="text-align: center;"><i>Activity</i></th> <th style="text-align: center;"><i>Semester workload</i></th> </tr> </thead> <tbody> <tr> <td>Lectures</td> <td style="text-align: center;">39</td> </tr> <tr> <td>Study and analysis of bibliography (of the lectures)</td> <td style="text-align: center;">26</td> </tr> <tr> <td>Writing and presentation of a brief project</td> <td style="text-align: center;">26</td> </tr> <tr> <td>Hours of preparation and study for the evaluation of progress and final exams</td> <td style="text-align: center;">31</td> </tr> <tr> <td>Final examination</td> <td style="text-align: center;">3</td> </tr> <tr> <td style="text-align: center;"><b>Course total</b> <b>(25 work load for each ECTS credit)</b></td> <td style="text-align: center;"><b>125</b></td> </tr> </tbody> </table>	<i>Activity</i>	<i>Semester workload</i>	Lectures	39	Study and analysis of bibliography (of the lectures)	26	Writing and presentation of a brief project	26	Hours of preparation and study for the evaluation of progress and final exams	31	Final examination	3	<b>Course total</b> <b>(25 work load for each ECTS credit)</b>	<b>125</b>
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<p><b>STUDENT PERFORMANCE EVALUATION</b></p> <p><i>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, other</i></p> <p><i>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i></p>	<p>1. Project (A) 2.. Written final examination (B)</p> <p><i>Each case is graded on a scale of 0-10</i></p> <p>Final grade (FG): FG = 0.20A + 0.80B</p> <p><i>Minimum passing grade: 5 (Grade: 0-10)</i></p> <p>Greek language is used. For foreign students (e.g. Erasmus students) it can be done in English</p>														

## 5. ATTACHED BIBLIOGRAPHY

### - Suggested bibliography:

- Nybaken JW (2001) ΘΑΛΑΣΣΙΑ ΒΙΟΛΟΓΙΑ: Μια Οικολογική Προσέγγιση, Επιμ. Έκδοσης στα Ελληνικά Μ. Αποστολοπούλου κ.α., Έκδ. Οίκος ΙΩΝ, Αθήνα, 563 Σελ
- Odum E.P. 1975. Ecology. Holt-Saunders Pubs. pp.244.
- Primack R.B. 1993. Essentials of Conservation Biology. Pubs. Sinauer pp. 564.
- Ricklefs R.E. 1990. Ecology. Freeman Pubs. pp. 896. RICKLEFS R.E. 1993. Ecology of Nature. Freeman Pubs. pp.576.
- Smith R.L. 1992. Elements of Ecology. Harper Collins Pubs. pp. 617.
- Γεράκης Π.Α. & Σ. Τσιουρή. 1989-90. Σημειώσεις Προστασίας Περιβάλλοντος. Άριστ. Παν/μιο Θεσ/νίκης Σελ. 122.
- Στάμου, Γ., Παπαθεοδώρου, Ε., 2015. Δομή και δυναμική βιοκοινοτήτων. [ηλεκτρ. βιβλ.] Αθήνα:Σύνδεσμος Ελληνικών Ακαδημαϊκών Βιβλιοθηκών. Διαθέσιμο στο: <http://hdl.handle.net/11419/4388>

### - Related academic sources and journals:

- Journal of Ecology and Environment
- Journal of Ecology
- Journal of Environmental Protection
- American Journal of Environmental Protection
- International Journal of Environmental Protection