

## COURSE OUTLINE “INTRODUCTION TO ORGANISMAL BIOLOGY”

### 1. GENERAL

<b>SCHOOL</b>	HEALTH SCIENCES		
<b>DEPARTMENT</b>	MOLECULAR BIOLOGY AND GENETICS		
<b>STUDY LEVEL</b>	ISCED LEVEL 6		
<b>COURSE CODE</b>	<b>MBG112</b>	<b>SEMESTER</b>	2 <sup>nd</sup>
<b>COURSE TITLE</b>	INTRODUCTION TO ORGANISMAL BIOLOGY		
<b>TEACHING ACTIVITIES</b> <i>In case credits are awarded to individual components of the course eg. Lectures, laboratory practicals, etc. If credit units are awarded for the whole course, indicate the weekly teaching hours and total credits</i>	<b>HOURS/WEEK</b>	<b>ECTS CREDITS</b>	
	3	4	
<b>COURSE TYPE</b> <i>General, Background, Scientific field course, Expertise Course, Skills Development etc</i>	SCIENTIFIC FIELD		
<b>PREREQUISITE COURSES:</b>	NO		
<b>LANGUAGE OF TEACHING AND EXAMINATIONS:</b>	GREEK		
<b>THE COURSE IS OFFERED TO ERASMUS STUDENTS</b>	NO		
<b>COURSE WEBSITE (URL)</b>	<a href="https://eclass.duth.gr/courses/ALEX01123/">https://eclass.duth.gr/courses/ALEX01123/</a>		

### 2. LEARNING OUTCOMES

<p><b>Learning outcomes</b> Describe the learning outcomes of the course, the specific knowledge, skills and competencies that students will acquire after successfully completing the course. Refer to Appendix A.</p> <ul style="list-style-type: none"> <li>• Description of learning outcomes for the course according to the level of study - refer to the European Higher Education Area Qualifications Framework</li> <li>• Descriptive Indicators of Levels 6, 7 &amp; 8 of the European Qualifications Framework for Lifelong Learning and Annex B Curriculum Vitae Summary Guide</li> </ul>		
<p><b>A. Learning outcomes:</b></p> <ul style="list-style-type: none"> <li>• Understand and describe the function of each system in animal physiology throughout main organismal models</li> <li>• Understand the main traits of plant structure and function</li> <li>• Understand the principles in ecology and relate them with human life and society</li> </ul> <p><b>B. Synthesis, interpretation and analysis:</b></p> <ul style="list-style-type: none"> <li>• Interpret differences of organisms’ functional systems with respect to their phylogenetic relationships and the natural selection</li> <li>• Compare adaptations and survival mechanisms of plant and animal organisms under similar environmental challenges</li> <li>• Develop critical thinking on the principles of ecology, with respect to the sustainable function of ecosystems and to human ecology</li> </ul>		
<p><b>General Skills</b> Which of the general competencies that the student will have acquired on the completion of the studies (see also the Diploma Supplement and below) are relevant to this course?</p> <table style="width: 100%; border: none;"> <tr> <td style="vertical-align: top;"> <ul style="list-style-type: none"> <li>Research, analysis and synthesize of data and information, using the necessary technologies</li> <li>Adaptation to new situations</li> <li>Decision making</li> <li>Autonomous work</li> <li>Team work</li> <li>Work in an international environment</li> </ul> </td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> <li>Work in an interdisciplinary environment</li> <li>Production of new research ideas</li> <li>Project design and management</li> <li>Respect for diversity and multiculturalism</li> <li>Respect for the natural environment</li> <li>Development of social, professional and moral responsibility and gender sensitivity</li> <li>Promotion of free, creative and inductive thinking</li> </ul> </td> </tr> </table>	<ul style="list-style-type: none"> <li>Research, analysis and synthesize of data and information, using the necessary technologies</li> <li>Adaptation to new situations</li> <li>Decision making</li> <li>Autonomous work</li> <li>Team work</li> <li>Work in an international environment</li> </ul>	<ul style="list-style-type: none"> <li>Work in an interdisciplinary environment</li> <li>Production of new research ideas</li> <li>Project design and management</li> <li>Respect for diversity and multiculturalism</li> <li>Respect for the natural environment</li> <li>Development of social, professional and moral responsibility and gender sensitivity</li> <li>Promotion of free, creative and inductive thinking</li> </ul>
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<ul style="list-style-type: none"> <li>• Searching, data and information analysis and composition with the use of necessary technologies</li> <li>• Autonomous work</li> <li>• Production of new research ideas</li> <li>• Awareness for the natural environment</li> <li>• Promoting free, creative and inductive thinking</li> </ul>		

### 3. COURSE CONTENT

<ol style="list-style-type: none"> <li>1. Animal histology</li> <li>2. Homeostasis – thermoregulation</li> <li>3. Neural system</li> <li>4. Sensorial organs - senses</li> <li>5. Skin system -Skeletal system – Muscular system</li> <li>6. Circulatory system</li> <li>7. Respiratory system</li> <li>8. Digestive system - Excretory system</li> <li>9. Reproductive system - Development</li> <li>10. Basics in plant physiology, reproduction and development of seed plants</li> <li>11. Ecosystem ecology – Abiotic factors – Landscape ecology</li> <li>12. Energy flow – Trophic relations – Biogeochemical cycles</li> <li>13. Populations ecology - Community ecology</li> </ol>
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### 4. TEACHING and LEARNING METHODS - EVALUATION

<b>TYPE OF TRAINING</b> <i>Face-to-face, Distance learning, etc..</i>	Face to face										
<b>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY</b> <i>Use of ICT in teaching, laboratory education, and in communication with the students</i>	Use of ICT technology for teaching Use of ICT in communication with the students										
<b>MODES OF DELIVERY</b> <i>Describe the teaching methods in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, practicum, 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</i>	<table border="1" style="width: 100%; text-align: center;"> <thead> <tr style="background-color: #e0e0e0;"> <th>Activity</th> <th>Workload/semester</th> </tr> </thead> <tbody> <tr> <td>Lectures</td> <td>30</td> </tr> <tr> <td>Interactive teaching</td> <td>10</td> </tr> <tr> <td>Study and analysis of bibliography</td> <td>80</td> </tr> <tr> <td><b>Course Total</b></td> <td><b>120</b></td> </tr> </tbody> </table>	Activity	Workload/semester	Lectures	30	Interactive teaching	10	Study and analysis of bibliography	80	<b>Course Total</b>	<b>120</b>
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<b>STUDENT PERFORMANCE EVALUATION</b> <i>Describe of the methods of evaluation language, methods of evaluation, types of exams, 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>  <i>Are evaluation criteria known to the students?</i>	<b>Assessment language:</b> Greek  <b>Assessment methods</b> Written Examination with Multiple Choice Questions and short answer questions										

### 5. SUGGESTED READING

<ol style="list-style-type: none"> <li>1. Η Πανίδα της Ελλάδας-Βιολογία και Διαχείριση της Άγριας Πανίδας κ.ά 1<sup>η</sup> έκδοση 2020. Εκδόσεις Broken Hill Publishers Ltd Κύπρος, 2020 (κωδικός ΕΥΔΟΞΟΥ 86055696 και ο ISBN: 9789925575053)</li> <li>2. Ζωική Ποικιλότητα: Βασικές αρχές Ζωολογίας με Εργαστηριακό Οδηγό. Hickman C.P., Kats L., Keen SL., Roberts, L.S., Larson, A., Eisenhour D.J. Επιμέλεια ελληνικής έκδοσης: Broken Hill Publishers Ltd, Κύπρος, 2020. (κωδικός ΕΥΔΟΞΟΥ 86055626, ISBN: 9789925575275)</li> <li>3. Βιολογία. Αιμιλία Ζήφα, Ζήσης Μαμούρης, Κατερίνα Μούτου. Εκδόσεις Παν/μίου Θεσσαλίας. Έκδοση 2/2011 (κωδικός ΕΥΔΟΞΟΥ 68390699)</li> </ol>
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