

## COURSE OUTLINE

### (1) GENERAL

<b>SCHOOL</b>	NATURAL SCIENCES		
<b>ACADEMIC UNIT</b>	BIOLOGY		
<b>LEVEL OF STUDIES</b>	UNDERGRADUATE		
<b>COURSE CODE</b>	BIO_BY10	<b>SEMESTER</b>	2 <sup>nd</sup>
<b>COURSE TITLE</b>	ANIMAL BIOLOGY I		
<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>	
Lectures, Laboratory Exercises, Field Work	3 (lec) + 3 (lab)	8	
<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>	Field of Science Skills Development		
<b>PREREQUISITE COURSES:</b>	NO		
<b>LANGUAGE OF INSTRUCTION and EXAMINATIONS:</b>	Greek		
<b>IS THE COURSE OFFERED TO ERASMUS STUDENTS</b>	Yes (in English)		
<b>COURSE WEBSITE (URL)</b>	<a href="https://eclass.upatras.gr/courses/BIO315/">https://eclass.upatras.gr/courses/BIO315/</a>		

### (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>Basic knowledge for the Protostome Animals, concerning their Evolution, morphology, internal organization, Systematics &amp; Ecology. By the end of this course the student should be able to: 1) understand and discuss the importance of Zoology for biological studies, 2) discuss basic principles of animal evolution and phylogeny, 3) understand most important characteristics of animal body structure, 4) identify representatives of the Protostome Animals.</p>
--

### 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

.....

Others...

.....

By the end of this course the student will have developed the following **Special skills/competences**:

1) ability to identify important differences among major Protostome animal groups, 2) ability to use an evolutionary approach in examination of Protostome Animals, concerning their morphology and ecology.

Additionally, by the end of this course the student will, furthermore, have develop the following

**General Abilities:**

1) Working independently, 2) Team work, 3) Generation of new research ideas, 4) Respect for the natural environment, 5) Development of free, creative and inductive thinking

### (3) SYLLABUS

1. Introduction to the Animals: Zoology as a part of Biology. 2. Animal Evolution - Architectural Pattern of an Animal - Classification & Phylogenetics. 3. Protozoans. 4. Sponges & Placozoa. 5. Radiate Animals: Cnidaria, Ctenophora. 6. Annelida, Mesozoa & Nemertea. 7. Lesser Protostomes. 8. Molluscs. 9. Annelida. 10. Arthropods: Trilobita, Chelicerata, Myriapods. 11. Hexapods. 12. Crustacea. 13. Synthesis.

Methodology and Implementation of the teaching and pedagogical approach in Animal Biology.



#### (4) TEACHING and LEARNING METHODS - EVALUATION

<p><b>DELIVERY</b> <i>Face-to-face, Distance learning, etc.</i></p>	Face to face	
<p><b>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY</b> <i>Use of ICT in teaching, laboratory education, communication with students</i></p>	Support of educational procedure with use of the e-class electronic platform	
<p><b>TEACHING METHODS</b> <i>The manner and methods of teaching are described in detail.</i> <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 (13 weeks x 3 hours per week)	39
	Laboratory exercises (9 weeks x 3 hours per week)	27
	Field Exercise (1 x 8 hours)	8
	Home study	126
	<b>200</b>	
<p><b>STUDENT PERFORMANCE EVALUATION</b> <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>1) Written exams (at the semester's end), in Course theory, accounting for the 60% of the Final Grade.</p> <p>2) Practical Laboratory exams (at the semester's end), accounting for the 60% of the Final Grade.</p> <p>Final Course Grade: Theory Grade x 0.6 + Laboratory Grade x 0.4</p> <p>Grading scale: 1-10. Passing grade: 5</p> <p>Grading: 3 correspond to ECTS grade F. Grade 4 corresponds to ECTS grade FX.</p> <p>Passing grades correspond to ECTS grades as follows: 5=E, 6=D, 7=C, 8=B, 9=A.</p>	

#### (5) ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

1) Hickman C.P. Jr, Roberts L.S., Keen S.L., Larson A., l'Anson H. (2017) Zoology – Integrated Principles. McGraw-Hill, 2) Miller S.A., Harley J.P. (2017). Zoology. McGraw-Hill, 3) Instructors' Laboratory Notes

- *Related academic journals:*