COURSE OUTLINE

1. GENERAL

SCHOOL	NATURAL SIENCES		
ACADEMIC UNIT	BIOLOGY		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	**BIO_IXΘ**	**SEMESTER**	**7**
COURSE TITLE	**ICHTHYOLOGY**		

INDEPENDENT TEACHING ACTIVITIES	**WEEKLY TEACHING HOURS**	**CREDITS**
Lectures, Laboratory Exercises	2 (lec) + 3 (lab)	6

COURSE TYPE	Field of Science Skills Development
PREREQUISITE COURSES	NO
LANGUAGE OF INSTRUCTION and EXAMINATIONS	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes
COURSE WEBSITE (URL)	https://eclass.upatras.gr/courses/BIO207/

2. LEARNING OUTCOMES

Learning outcomes

In the end of the course the student should be able to:
1. know the basic concepts of the fish evolution and physiology.
2. identify the main groups of fish based on their morphological characteristics.
3. understand the particularities of fish biology, e.g. movement in the aquatic medium, buoyancy, respiration and osmoregulation.
4. know the feeding habits and the reproductive strategies of fish.
5. comprehend the functioning of the circulatory, nervous and digestive systems as well as the functioning and importance of their sensory organs.
6. comprehend modern aspects of fish Biology.
7. understand elements of fisheries science and management of fisheries resources.

General Competences

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. The ability to use the basic functions of the Fishbase database on the web
2. The ability to identify fish species using identification keys
3. The ability to understand the principles of growth and age-reading techniques from fish scales and otoliths
4. The ability to collect and analyse data on length, weight, fecundity and age of fish
5. The ability to collect and use fisheries data.

3. SYLLABUS

Introduction to Ichthyology. Fish morphology and anatomy. Movement in the aquatic medium. Respiration. Development. Reproduction, feeding, osmoregulation. Behaviour. Growth. Fish and their habitats. Freshwater and marine fish fauna. Greek and Mediterranean fish. Fisheries and aquaculture.

Current issues in fish Biology.

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY	Face to face	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	PowerPoint presentations. Support of educational procedure using the e-class electronic platform	
TEACHING METHODS	***Activity***	***Semester workload***
	Lectures (13 weeks x 2 hours per week)	26
	Laboratory exercises (6 weeks x 3 hours per week)	18
	Home study	106
	Course total	**150**
STUDENT PERFORMANCE EVALUATION	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 0.7 + Laboratory Grade x 0.3 Grading scale: 1-10. Passing grade: 5	

5. ATTACHED BIBLIOGRAPHY

Suggested bibliography:

1. Dailianis S. Ichthyology Notes (in Greek)
2. Helfman, Gene S., Collette, Bruce B., Facey, Douglas E., Bowen, Brian W. 2021. Ichthyology: Diversity and Adaptations of Fishes (title in the English edition: The Diversity of Fishes: Biology, Evolution and Ecology), Broken Hill Publishers, Nicosia (in Greek)
3. Bone, Quentin, Moore, Richard H. 2017. Biology of Fishes, Pedio Editions, Athens

Related academic journals:

1. Journal of Fish Biology
2. Environmental Biology of Fishes
3. Fish Physiology and Biochemistry