<table>
<tr><td colspan="2">NAME OF THE COURSE</td><td colspan="5">Fish ecology</td></tr>
<tr><td>Code</td><td>PMB541</td><td>Year of study</td><td colspan="4">3.</td></tr>
<tr><td>Course teacher</td><td>Mate Šantić, Full Professor, PhD
Antonela Paladin, Assistant Professor, PhD</td><td>Credits (ECTS)</td><td colspan="4">2</td></tr>
<tr><td rowspan="2">Associate teachers</td><td rowspan="2"></td><td rowspan="2">Type of instruction (number of hours)</td><td>L</td><td>S</td><td>E</td><td>F</td></tr>
<tr><td>15</td><td>15</td><td></td><td></td></tr>
<tr><td>Status of the course</td><td>elective</td><td>Percentage of application of e-learning</td><td colspan="4">10%</td></tr>
<tr><td colspan="7">COURSE DESCRIPTION</td></tr>
<tr><td>Course objectives</td><td colspan="6">Introduce students to the world of fish; taxonomical diversity and evolutionary changes, different habitats and relationships, with examples of different life forms and strategies, morphological and physiological adaptations, and behaviors.</td></tr>
<tr><td>Course enrolment requirements and entry competences required for the course</td><td colspan="6"></td></tr>
<tr><td>Learning outcomes expected at the level of the course (4 to 10 learning outcomes)</td><td colspan="6">After successfully completing the course the student will be able to:
Understand the basic taxonomic division of fish and theirs main features.
Analyze the basic biological, physical and chemical characteristics of the marine environment.
Analyze trophic categories and basic ecological hypotheses.
Understand the basics of fish zoogeography, distinguish basic zoogeographic regions and the most important provinces of the same.
Analyze the basis of fish reproduction.
Understand the basics of fish behavior.
Apply knowledge of fish ecology for the purpose of conservation ecology: establishment protected areas, protection of habitats and species. The importance of education and science in creating environmental awareness.</td></tr>
<tr><td>Course content broken down in detail by weekly class schedule (syllabus)</td><td colspan="6">Lecture 1. Fish habitat. (1 hour).
Lecture 2. Ecological environmental factors and their impact on fish (2 hours).
Lecture 3. Ecological regulators of distribution of marine organisms in the sea (2 hours).
Lecture 4. Zoogeography of marine fish. Relocation strategy. Spatial and temporal forms of recruitment (2 hours).
Lecture 5. Reproductive and life forms (2 hours).
Lecture 6. Community organization and fish behavior (1 hour).
Lecture 7. Habitats. Coastal habitats. Special habitats (2 hours).
Lecture 8. Deep-sea habitats and deep-sea fish. Polar fish (2 hours).
Lecture 9. Fisheries and sustainable management (1 hour)

During the semester, seminars are held, some of which are permanent, while others they change and depend on the wishes of the students.</td></tr>
<tr><td>Format of instruction</td><td colspan="3">☒ lectures
☒ seminars and workshops
☐ exercises
☐ on line in entirety
☐ partial e-learning
☐ field work</td><td colspan="3">☐ independent assignments
☐ multimedia
☐ laboratory
☐ work with mentor
☐ (other)</td></tr>
</table>

Student responsibilities						
Screening student work *(name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)*	Class attendance	0,5	Research		Practical training	
	Experimental work		Report		(Other)	
	Essay		Seminar essay	0,5	(Other)	
	Tests		Oral exam		(Other)	
	Written exam	1	Project		(Other)	
Grading and evaluating student work in class and at the final exam	The written part of the seminar paper is evaluated (topic processing and paper structure; graphic and other attachments; literature), presentation of seminar paper and written exam.					

	Title	Number of copies in the library	Availability via other media
Required literature (available in the library and via other media)	Diana, J.S., 2003. Biology and ecology of fishes. Cooper Publishing Group.	1	
	Jardas, I., 1996. Jadranska ihtiofauna. Školska knjiga, Zagreb, 533p. Prentice Hall, New Jersey, 589p.	2	
	Helfman, Collette, Facey,Bowen The diversity of fishes, Biology, Evolution and Ecology. Wiley-Blackwell, 2009.		Electronic format

Optional literature (at the time of submission of study programme proposal)	Moyle, P.B. and Cech, J.J.Jr, 1996. Fishes. An introduction to ichthyology
Quality assurance methods that ensure the acquisition of exit competences	Active participation in classes. Student teacher and subject evaluation survey. Feedback from students.
Other (as the proposer wishes to add)	