University of Gdańsk

Subject card

Subject name and code	Marine Fishes - laboratory, PG_00204920		
Field of study	Oceanography		
Date of commencement of studies	October 2027	Academic year of realisation of subject	2027/2028
Education level	Master's studies	Subject group	Obligatory subject group in the field of study Optional subject group Subject group related to scientific research in the field of study
Mode of study	full-time studies	Mode of delivery	at the university
Year of study	1	Language of instruction	Polish
Semester of study	2	ECTS credits	1.0
Learning profile	academic	Assessment form	credit
Conducting unit	Laboratory of Ichthyology -> Department of Marine Ecology -> Faculty of Oceanography and Geography -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr Anna Dziubińska	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	0.0	10.0	0.0	0.0	10

E-learning hours included: 0.0

Learning activity and number of study hours

Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours	Self-study	SUM
Number of study hours	10	2.0	13.0	25

Subject objectives

Getting to know and identifying representatives of the main groups of marine fishes

Learning outcomes

Course outcome	Subject outcome	Method of verification
[OCEANMU2-U03] can plan and carry out independently advanced research and measurements, both in field and laboratory, using appropriately selected measurement and analytical techniques in the field of oceanography, adequately to the studied specialty and research problem	can plan and carry out measurements and observations allowing for taxonomic identification of marine fishes	[SU3] text preparation/written work [SU6] demonstration of practical skills

Subject contents

Morphological systematic features of the Holocephala and the Elasmobranchii

Systematic division and overview of shark orders

Practical familiarization with selected fish species

- Petromyzontiformes
- Acipenseriformes
- Anguilliformes
- Clupeiformes
- Perciformes

Prerequisites and co-requisites	Basic knowledge of zoology	
Assessment methods and criteria		

Subject passing criteria	Passing threshold	Percentage of the final grade
demonastration of practical skills	51.0%	10.0%
written elaboration of the results of the observations carried out	51.0%	90.0%

Recommended reading	Basic literature	Gąsowska M., 1962. Krągłouste i ryby. Państwowe Wydawnictwo Naukowe. Warszawa Grodziński Z., 1981. Anatomia i embriologia ryb. Państwowe Wydawnictwo Rolnicze i Leśne. Warszawa Opuszyński K., 1979. Podstawy biologii ryb. Państwowe Wydawnictwa Rolnicze i Leśne. Warszawa Pliszka F., 1964. Biologia ryb. Państwowe Wydawnictwa Rolnicze i Leśne. Warszawa Suworow E., 1954. Podstawy ichtiologii. Państwowe Wydawnictwo Naukowe. Warszawa Bieniarz K., Epler P. Zoologia Tom V, Ryby. Leksykon popularnonaukowy. Wydawnictwo Albatros, Kraków 2004 Nelson J.S. Fishes of the Word. Wiley 2006 Kottelat M., Freyhof J. Handbook of European Freshwater Fishes. 2007 Jasiński A., 1973. Zootomia kręgowców. Państwowe Wydawnictwo Naukowe Klimaj A., Rutkowicz S., 1970. Atlas ryb Północnego Atlantyku. Wydawnictwo Morskie. Gdańsk Rutkowicz S., 1982. Encyklopedia ryb morskich. Wydawnictwo Morskie. Gdańsk
	Supplementary literature	Bone Q.M.A., Marshall N.B., 1982. Biology of fishes. Blackie. Glasgow and London Cailliet G.M., Love M.S., Ebeling A.W., 1986. Fishes. Wadsworth Publishing Company, Belmont, California Lagler K.F., Bardach J.E., Miller R.R., May Passino D.R., 1977. Ichthyology. John Willey & Sons. New York, Chichester, Brisbane, Toronto
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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