

Subject card

Subject name and code	Marine fishes - lecture, PG_00117874						
Field of study	Oceanography						
Date of commencement of studies	October 2024	Academic year of realisation of subject				2024/2025	
Education level	postgraduate studies	Subject group				Obligatory subject group in the field of study Optional subject group	
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					
Conducting unit	Pracownia Ichtiologii -> Katedra Ekologii Morza -> Faculty of Oceanography and Geography						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Mariusz Sapota				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	10.0	0.0	0.0	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		5.0		5.0	20
Subject objectives	Getting to know and identifying representatives of the main groups of marine fish						
Learning outcomes	Course outcome		Subject outcome			Method of verification	
	[OCEANMU2-W01] knows and understands in-depth specialized terminology used in oceanography and related sciences (in Polish and a selected foreign language)		knows and understands specialist terminology (in Polish and English) used in the taxonomy and biology of marine fishes			[SW4] test/exam - oral or written	
	[OCEANMU2-W03] knows and understands research methods used in oceanography and related sciences		knows and understands advanced research methods used in taxonomic identification of marine fishes			[SW4] test/exam - oral or written	
Subject contents	<p>Description of systematic features of fishes: shape and coloration, elements of external structure and their arrangement, structure of the skeleton</p> <p>Biometric and meristic features</p> <p>Characteristics of marine and bi-environmental Agnatha and Gnathostomata</p> <p>Characteristics of Holocephali</p> <p>Characteristics of Elasmobranchii</p> <p>Characteristics of Actinopterygia</p>						

Prerequisites and co-requisites	Basic knowledge of zoology		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	exam	51.0%	100.0%
Recommended reading	Basic literature	<p>Brylińska M. Ryby słodkowodne Polski. Wydawnictwo Naukowe PWN Warszawa 2000</p> <p>Gerstmeier R., Romig T. Przewodnik. Słodkowodne ryby Europy. Mulico Warszawa 2002</p> <p>Bieniarz K., Epler P. Zoologia Tom V, Ryby. Leksykon populamonaukowy. Wydawnictwo Albatros, Kraków 2004</p> <p>Nelson J.S. Fishes of the Word. Wiley 2006</p> <p>Kottelat M., Freyhof J. Handbook of European Freshwater Fishes. 2007</p> <p>Jasiński A., 1973. Zootomia kręgowców. Państwowe Wydawnictwo Naukowe</p> <p>Klimaj A., Rutkowicz S., 1970. Atlas ryb Północnego Atlantyku. Wydawnictwo Morskie. Gdańsk</p> <p>Rutkowicz S., 1982. Encyklopedia ryb morskich. Wydawnictwo Morskie. Gdańsk</p>	
	Supplementary literature	<p>Bone Q.M.A., Marshall N.B., 1982. Biology of fishes. Blackie. Glasgow and London</p> <p>Cailliet G.M., Love M.S., Ebeling A.W., 1986. Fishes. Wadsworth Publishing Company, Belmont, California</p> <p>Lagler K.F., Bardach J.E., Miller R.R., May Passino D.R., 1977. Ichthyology. John Willey & Sons. New York, Chichester, Brisbane, Toronto</p> <p>Gąsowska M., 1962. Kragłouste i ryby. Państwowe Wydawnictwo Naukowe. Warszawa</p> <p>Grodziński Z., 1981. Anatomia i embriologia ryb. Państwowe Wydawnictwo Rolnicze i Leśne. Warszawa</p> <p>Opuszyński K., 1979. Podstawy biologii ryb. Państwowe Wydawnictwa Rolnicze i Leśne. Warszawa</p> <p>Pliszka F., 1964. Biologia ryb. Państwowe Wydawnictwa Rolnicze i Leśne. Warszawa</p> <p>Suworow E., 1954. Podstawy ichtiologii. Państwowe Wydawnictwo Naukowe. Warszawa</p>	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed			

Work placement	Not applicable
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