



Subject card

Subject name and code	Coastal Environment, PG_00053472						
Field of study	Spatial Development						
Date of commencement of studies	February 2023	Academic year of realisation of subject			2022/2023		
Education level	second-cycle studies	Subject group			Obligatory subject group in the field of study 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	1	ECTS credits			1.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Department of Urban Design and Regional Planning -> Faculty of Architecture						
Name and surname of lecturer (lecturers)	Subject supervisor	dr Miłosz Marciniak					
	Teachers	dr Miłosz Marciniak					
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	0.0	0.0	15
	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	15	1.0	9.0	25		
Subject objectives	The aim of the course is to familiarize students with the environmental conditions and determinants of urbanization and tourism development in the coastal zone, as well as the location and operation of maritime and coastal infrastructure.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	K7_W02	has in-depth knowledge of spatial management, is able to explain the environmental conditions and determination of the location and operation of maritime and coastal infrastructure.			[SW3] Assessment of knowledge contained in written work and projects [SW1] Assessment of factual knowledge		
	K7_U07	can use the known methods to develop non-standard analyzes in the field of spatial management, can describe and explain functional and spatial conflicts in the exploitation and use of the coastal zone; can develop scenarios for the operation of boundary structures			[SU2] Assessment of ability to analyse information [SU1] Assessment of task fulfilment		
	K7_W01	understands and describes the factors and mechanisms of development of sea areas, is able to communicate in the environment of various coastal zone users; understands and knows how to analyze phenomena and processes occurring in the marine environment and human impact on this environment			[SW3] Assessment of knowledge contained in written work and projects [SW1] Assessment of factual knowledge		

Subject contents	<p>Selected issue of coastal zone geology and hydrogeology. Specificity of groundwater occurrence in the coastal zone. Classification and mechanics of soils and bottom sediments. Influence of the type of bottom sediments on: possibilities of maintaining the depth of waterways in open water bodies and in the coastal zone, dredging works technologies, route selection and foundation of the offshore pipeline. Assessment of land suitability for foundation of objects in the coastal zone.</p> <p>Shore balance, debris transport in the coastal zone, debris streams, silting sand, shoreline and bottom dynamics. Forms of the sculpture of the edge and bottom of the shallow water. Types of sea shores and coasts - navigation characteristics and from the point of view of the construction and development of the port. Impact of climate change on the coastal zone.</p> <p>Identification of shoreline and coastal zone hazards (including floods and flooding, surface displacement). Protection of the sea shore and coastal environment: levees and anti-storm banks, shore reinforcements (spurs, bands, breakwaters and underwater thresholds, biotechnical cover), refutations. Examples of sea shore protection projects in Poland.</p>		
Prerequisites and co-requisites	Ability to cause-effect-thinking, analysis and synthesis; knowledge of natural, social and economic determinants of spatial management gathered at previous stages of study; geographical knowledge obtained at earlier stages of education		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	test	60.0%	100.0%
Recommended reading	Basic literature	<p>Zasady dokumentowania geologiczno-inżynierskich warunków posadowienia obiektów budownictwa morskiego i zabezpieczeń brzegu morskiego. PIG, Warszawa, 2009.</p> <p>Pruszek Z., Brzeg morski. Procesy fizyczne obszaru płytko- i nadwodnego. Wyd. IBW PAN, 2014.</p> <p>Pruszek Z., Skaja M., Problemy dynamiki i ochrony brzegu morskiego. Wyd. IBW PAN, 2014.</p> <p>Łabuz T., Sposoby ochrony brzegów morskich i ich wpływ na środowisko przyrodnicze polskiego wybrzeża Bałtyku, Raport WWF, 2013.</p> <p>The Geography of Transport systems. Chapter 6 https://transportgeography.org/</p>	
	Supplementary literature	<p>Mazurkiewicz B., Encyklopedia inżynierii morskiej. Wyd. Fundacja Promocji POiGM, Gdańsk 2009.</p> <p>Dyrektywy UE, ustawy i rozporządzenia, ekspertyzy i raporty dotyczące obszarów przybrzeżnych wykonane na potrzeby KPZK i gospodarki w strefie przybrzeżnej</p> <p>Furmańczyk K. (red.), Zintegrowane Zarządzanie Obszarami Przybrzeżnymi w Polsce – stan obecny i perspektywy, tom 1 – Problemy erozji brzegu. Uniwersytet Szczeciński, 2005.</p> <p>Furmańczyk K. (red.), Zintegrowane Zarządzanie Obszarami Przybrzeżnymi w Polsce – stan obecny i perspektywy, tom 2 – Brzeg morski – zrównoważony. Uniwersytet Szczeciński, 2006.</p> <p>Monitoring i badania dotyczące aktualnego stanu brzegu morskiego - ocena skuteczności systemów ochrony brzegu morskiego realizowanych w okresie obowiązywania wieloletniego "Programu ochrony brzegów morskich". IBW PAN, Gdańsk, 2013.</p> <p>Studium nad problemami oceny skutków środowiskowo-przestrzennych eksploatacji gazu z łupków w województwie pomorskim i przyległych obszarach morskich. Problemy ocen środowiskowych, numer specjalny, 2012.</p>	
	eResources addresses	Adresy na platformie eNauczanie:	

<p>Example issues/ example questions/ tasks being completed</p>	<p>Explain the transverse and longitudinal dislocation of sediments and their impact on the functioning of coastal infrastructure.</p> <p>Assessment of the legitimacy of cliff protection structures in Jastrzębia Góra.</p> <p>Hard and soft seashore protection systems.</p> <p>Threats to the chemical state and usable resources of aquifers in the coastal zone of the southern Baltic</p> <p>Purpose and conditions for performing dredging works.</p> <p>Spatial conflicts in the Baltic coastal zone related to shore and environmental protection.</p>
<p>Work placement</p>	<p>Not applicable</p>