GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Coastal zone - diploma project II, PG_00054616		
Field of study	Spatial Development		
Date of commencement of studies	February 2023	Academic year of realisation of subject	2023/2024
Education level	second-cycle studies	Subject group	
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	Polish
Semester of study	3	ECTS credits	15.0
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 hab. inż. arch. Karolina Krośnicka	
	Teachers	dr hab. inż. arch. Karolina Krośnicka	

Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	30.0	0.0	30.0	0.0	60
	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	60	0.0	0.0	60

Subject objectives	The aim of the course is twofold. The first aim of the course is to familiarize students with the specifics of the organization and operation of port terminals and the complex transport node, which is a seaport, by preparing a preliminary design for the development of selected port terminals in the port area of Gdańsk or Gdynia. The second goal is the work on the the diploma thesis in individual cooperation with the promoter, in the context of the need for integrated management in coastal areas in accordance with the principle of sustainable development.

Learning outcomes

Course outcome	Subject outcome	Method of verification
K7_U02	Analyzes and critically evaluates the existing phenomena and spatial solutions occurring in urbanized structures of various scales (in a district, city, region); indicates solutions to problem situations and determines the appropriate directions of spatial development, taking into account multiple conditions; prepares elements of planning studies concerning spatial policy and development strategies of the city and the region	[SU5] Assessment of ability to present the results of task
K7_W06	knows and understands the concepts and principles of copyright protection and the need to manage intellectual property resources	[SW3] Assessment of knowledge contained in written work and projects
K7_U04	plans and conducts computer simulations; uses information and communication techniques in an advanced manner; interprets the obtained results and draws conclusions in the field of phenomena related to spatial planning	[SU1] Assessment of task fulfilment
[K7_U71] is able to apply knowledge from humanistic, social, economic or legal sciences in order to solve problems	is able to apply knowledge in the field of humanities or social or economic or legal sciences to solve problems	[SU1] Assessment of task fulfilment
K7_U03	uses the known methods to develop non-standard analyzes and studies in the field of spatial management; integrates knowledge from various scientific disciplines, applies a systemic approach, taking into account non-technical aspects	[SU2] Assessment of ability to analyse information
K7_K02	initiates various activities for the public interest, including participation in the preparation of social projects, planning and town planning workshops and public debates on issues related to spatial management, within which they can reliably present the problem on a non-professional forum and explain the methods and solutions	[SK4] Assessment of communication skills, including language correctness
K7_U05	Is able to carry out the concepts of the port terminal development, fitting it properly into the surroundings of the port and the port city. As part of the diploma thesis, he is able to prepare an urban concept of transforming downtown buildings with the development of public space. In both cases, they have the ability to apply planning methods and use computer techniques and tools.	[SU1] Assessment of task fulfilment [SU4] Assessment of ability to use methods and tools [SU5] Assessment of ability to present the results of task
K7_W05	Has extensive knowledge of planning procedures allowing the integration of planning solutions within local plans prepared for port areas, coastal zone and urban areas.	[SW3] Assessment of knowledge contained in written work and projects
K7_U06	is able to formulate a design specification of a complex planning task, taking into account legal and other non-technical aspects, including social impact and economic efficiency	[SU2] Assessment of ability to analyse information

Subject contents	1. Designing selected port terminals 30 hours design 1.1. Design of a container terminal for assumed turnover. Designing a reloading stand. Adoption of the storage system. Selection of reloading devices. Calculation of the number of component blocks. Specifying the configuration of container blocks. Defining the organization of the transport service of the terminal (internal and external). Design of terminal facilities and auxiliary areas. 1.2. Design of a conventional mass terminal for assumed turnover. Adoption of basic assumptions and data (turnover, size structure, call structure). Adoption of the mooring line layout and vessel service model. Calculation of the necessary number of mooring positions and the length of the mooring line. Calculation of the necessary number and area of storage yards with the assumed yard service system. The spatial layout of the terminal, taking into account the road communication system. 1.3. Design of general cargo terminal. Organization of storage yards.Development trends in designing general cargo terminals (ro-ro). Calculation of the necessary number and area of storage yards with the assumed yard service system. The spatial layout of the terminal, taking into account the road and rail communication system. 2. Continuation of the diploma and project thesis, the first two stages of which were completed in the sem II. Developing the project, indicating development directions and recommendations for the project area and developing a concept for its spatial development: 30 exercises, promoters 2.1. Defining design guidelines for the implementation of the investment in the selected project area, 2.2. A comprehensive vision of spatial development, 2.3. Creation of a transformation program (spatial, social, economic activities and the links between them). Defining activities and strategies for implementing the transformation program. Assessment of the potential effects of the proposed activities and economic, social, environmental, spatial and other benefits, 2.4. Determining the target functional and spatial structure of the selected area, 2.5. The concept of the functioning of systems and subsystems in the design area (residential areas, natural, transport and logistics, energy, tourist services, ...), 2.6. Development plan for the entire area, 2.7.Detailing design for the selected fragment.
Prerequisites and co-requisites	Completed courses from MK_3, MK_8 and MK_9 modules at the ICZM specialization; can work in the GIS environment.
Assessment methods and criteria	

Subject passing criteria	Passing threshold	Percentage of the final grade
work on diploma thesis	100.0%	33.0%
design of erminals	100.0%	67.0%

Recommended reading	Basic literature	Zaucha J. (red.), *Studium uwarunkowań zagospodarowania przestrzennego polskich obszarów morskich wraz z analizami przestrzennymi*. Instytut Morski, Gdańsk, 2015 (http:// www.umgdy.gov.pl/?cat=96) Dyrektywy UE, konwencje, ustawy i rozporządzenia, KPZK 2030, strategie rozwojowe portów morskich Agerschou H., Dand I., Ernst T., *Planning and design of ports and marine terminals*, wyd. drugie., Thomas Telford Ltd, 2004. Böse J. W., *Handbook of Terminal Planning*. Springer-Verlag New York, 2011. Gaythwaite J.W., *Design of Marine Facilities for the Berthing, Mooring, and Repair of Vessels*. Amer Society of Civil Engineers, 2004. Mazurkiewicz B. (red.), *Morskie budowle hydrotechniczne. Zalecenia do projektowania i wykonywania Z 1 - Z 45*. wydanie V, Fundacja Promocji POiGM, Gdańsk 2008. Mazurkiewicz B. Wiśniewski F., *Morskie budowle hydrotechniczne. Zalecenia do projektowania, wykonywania i utrzymania*. Fundacja Promocji POiGM, Gdańsk 2015. PIANC (Permanent International Association of Navigational Conferences) Thoresen C., *Port designers handbook. Recommendations and guidelines*. Thomas Telford, London, 2003. Tsinker P. (ed.), *Port engineering. Planning. Construction. Maintenance and security*. Wiley & Sons, 2004. UNCTAD, *Port development. A handbook for planners in developing countries*.
	Supplementary literature	Schultz-Zehden A., Gee K., Scibior K., *Handbook on Integrated Maritime Spatial Planning*. S.PRO., Berlin, 2008 (http:// www.plancoast.eu/files/handbook_web.pdf). http://ec.europa.eu/ourcoast/index.cfm?menuID=19
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	1. Zoning of the port terminal (e.g. container, specialized mass). 2. Impact of the port terminal on the area of the port agglomeration and the region. 3.Characteristics of threats to the coastline and the coastal zone's environment.	
Work placement	Not applicable	