

Subject card

Subject name and code	Technical Management of Real Estate , PG_00132940						
Field of study	Management						
Date of commencement of studies	October 2023		Academic year of realisation of subject		2025/2026		
Education level	Bachelor's studies		Subject group		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	3		Language of instruction		Polish		
Semester of study	6		ECTS credits		7.0		
Learning profile	academic		Assessment form		exam		
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Małgorzata Rymarzak				
	Teachers		mgr Rafał Kramer				
			Łukasz Kozak				
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	30.0	15.0	0.0	0.0	75
	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	75		0.0		0.0	75
Subject objectives	The aim of the course is to synthetically present issues related to the technical management of real estate in order to prepare students to pursue professions related to real estate management, in particular real estate valuation and management, as well as the development process.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[ZARZL3_K02] The student is aware of the need to supplement and expand the acquired knowledge and skills and strives to combine knowledge from different fields and disciplines of science interdisciplinarily.	The student is aware of the need to supplement and expand the acquired knowledge and skills in the field of technical real estate management, and tries to combine knowledge from various fields and disciplines of science in an interdisciplinary manner.	[SK2] presentation/project/paper/report
	[ZARZL3_W01] The student has advanced knowledge in the social sciences, with particular emphasis on the discipline of management and quality sciences, and understands their interrelationships with other social sciences.	The student has advanced knowledge in the field of technical real estate management.	[SW4] test/exam - oral or written
	[ZARZL3_U02] The student is able to correctly use the legal acts regulating the sphere of formal and legal organization of the establishment and operation of enterprises in Poland.	The student is able to correctly use basic legal acts regulating the issues of technical real estate management.	[SU4] test/exam - oral or written
	[ZARZL3_U07] The student is able to search for information necessary in making rational decisions of an operational and strategic nature in enterprises.	The student is able to search for the necessary information for the technical management of real estate.	[SU2] presentation/project/paper/report
	[ZARZL3_U04] The student is able to use the acquired knowledge of management science and quality in professional practice.	The student is able to apply the acquired knowledge in the field of technical real estate management in professional practice.	[SU2] presentation/project/paper/report
	[ZARZL3_W14] The student has a structured detailed knowledge of the selected specialty in the field of management.	The student has structured, detailed knowledge in the field of technical real estate management.	[SW4] test/exam - oral or written
	[ZARZL3_K06] The student is ready to work in, co-create or manage a group. The student is able to think and act in an entrepreneurial manner.	The student is ready to work in groups, co-create them or manage them. Student is able to think and act in an entrepreneurial way for the needs of technical management of real estate.	[SK2] presentation/project/paper/report

Subject contents	LECTURE: 1. Building Law, 10 hours (including:) - Scope of regulations, basic concepts and definitions - Rights and obligations of participants in the investment process - Architectural and construction administration bodies 2. Technical requirements for buildings and their location, 10 hours (including:) - Scope of regulations, basic concepts and definitions - Division of buildings into height groups - Building location on a building plot - General conditions for rooms intended for human occupancy - Specific requirements for apartments in multi-family buildings - Polish and international construction standards 3. Polish Classification of Buildings, 4 hours 4. FIDIC Investment Project Management, 6 hours TUTORIAL: 1. Overview of construction technologies, 8 hours (including:) - General characteristics of general, industrial, and civil engineering buildings - Types and main elements of building structures - Technologies and finishing elements of buildings - Internal installations in Buildings 2. The Construction Investment Process, 7 hours (including:) - Pre-design stage (conditions arising from the local zoning plan or decision on development and land use conditions) - Design and preparation stage for investment implementation (building design, building permit, notification of construction or other construction works) - Construction stage (construction log, acceptance report, as-built inventory, occupancy permit, notification of completion of construction) - Maintenance (operation) stage (owner or manager's obligations regarding the operation of the building, building log book, change of use) - Demolition of the building (demolition permit for the building or notification of demolition of the building) - Illegal construction, conditions and method of its legalization, legalization fees 3. Principles for calculating the area and volume of buildings, 4 hours 4. Documentation of the building and periodic inspections of buildings, 4 hours 5. Technical wear and tear of buildings 5 hours 6. Building Rating Systems (LEED, BREEAM, WELL), 2 hours LABORATORY: 1. Cost Estimation Basics (including Norma Pro software), 15 hours (incl.): - General concepts, legal acts, types of cost estimates and their functions, - Standards and pricing base for techniques for standardizing the work of people, machines, and material consumption - Principles of preparing bills of quantities and work quantities - Specifics of construction cost estimation - Cost estimation examples - Sources of information on prices in construction		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Subtest 3	51.0%	25.0%
	Subtest 1	51.0%	25.0%
	Subtest 2	51.0%	25.0%
	Project	51.0%	25.0%
Recommended reading	Basic literature 1. Dziworska K., Trojanowski D., Projekt deweloperski-fazy, etapy i działania - Prace i Materiały Wydziału Zarządzania Uniwersytetu Gdańskiego, nr 3/2007, s.25-38. 2. Maj T., Sporządzanie kosztorysów, WSiP, Warszawa 2015. 3. Popek M., Wapińska B., Podstawy budownictwa. Podręcznik, WSiP, Warszawa 2013. 4. Rymarzak M., Zarządzanie nieruchomościami przedsiębiorstw w Polsce, CeDeWu, Warszawa 2009, rozdział 2.		

	Supplementary literature	1. Popek M., Wapińska B., Budownictwo ogólne. Podręcznik, WSiP, Warszawa 2013. 2. Kowalczyk Z., Zabielski J., Kosztorysowanie i normowanie w budownictwie, WSiP, Warszawa 2011. 3. Rozporządzenie Ministra Infrastruktury z dnia 18. 05. 2004r w sprawie metod i podstaw sporządzania kosztorysu inwestorskiego, obliczania planowanych kosztów prac projektowych oraz planowanych kosztów budowlanych określonych w programie funkcjonalno-użytkowym (Dz. U. Nr 130 z 2004, poz. 1389). 4. Izba Projektowania Budowlanego, Środowiskowe zasady obliczania wartości kosztorysowej inwestycji budowlanych, Warszawa 2003. 5. Ustawa z dnia 7 lipca 1994 r. Prawo budowlane (Dz. U. 1994 Nr 89 poz. 414 z późn. zm.). 6. Rozporządzenie Ministra Infrastruktury z dnia 12 kwietnia 2002 r. w sprawie warunków technicznych, jakim powinny odpowiadać budynki i ich usytuowanie (z późn. zm.). 7. Rozporządzenie Ministra Spraw Wewnętrznych i Administracji z dnia 16 sierpnia 1999 r. w sprawie warunków technicznych użytkowania budynków mieszkalnych (z późn. zm.). 8. Jurga R., Weiss I., Inwestycje budowlane, C.H.Beck, Warszawa 1999. 9. Fabijański M., Kacprzyk B., Sielewicz O., Metody kosztorysowania robót budowlanych, WACETOB, Warszawa 2008. 10. Pliszka E. (red.) Vademecum budowlane, Arkady Warszawa 2001. 11. Warunki kontraktu na realizację EPC/pod-klucz (FIDIC zielony edycja 1999), Wydawnictwo Cosmopoli, Warszawa 2000. 12. Warunki Kontraktu na Budowę (FIDIC czerwony edycja 2017), Wydawnictwo SIDIr, Warszawa 2017. 13. Warunki Kontraktu na urządzenia i budowę z projektowaniem (FIDIC żółty edycja 2017), Wydawnictwo SIDIr, Warszawa 2017. 14. Warunki Kontraktowe FIDIC dla projektowania, budowy i obsługi (FIDIC złoty edycja 2008), Wydawnictwo SIDIr, Warszawa 2010.
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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