

## Subject card

|                                             |                                                                                                                                                                                                                                                                                                  |                                                          |                                         |                                     |                                                                                              |            |     |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------|-------------------------------------|----------------------------------------------------------------------------------------------|------------|-----|
| Subject name and code                       | Technical Management of Real Estate , PG_00155801                                                                                                                                                                                                                                                |                                                          |                                         |                                     |                                                                                              |            |     |
| Field of study                              | Management                                                                                                                                                                                                                                                                                       |                                                          |                                         |                                     |                                                                                              |            |     |
| Date of commencement of studies             | October 2024                                                                                                                                                                                                                                                                                     |                                                          | Academic year of realisation of subject |                                     | 2026/2027                                                                                    |            |     |
| Education level                             | Bachelor's studies                                                                                                                                                                                                                                                                               |                                                          | Subject group                           |                                     | Optional subject group<br>Subject group related to scientific research in the field of study |            |     |
| Mode of study                               | part-time studies                                                                                                                                                                                                                                                                                |                                                          | Mode of delivery                        |                                     | at the university                                                                            |            |     |
| Year of study                               | 3                                                                                                                                                                                                                                                                                                |                                                          | Language of instruction                 |                                     | Polish                                                                                       |            |     |
| Semester of study                           | 6                                                                                                                                                                                                                                                                                                |                                                          | ECTS credits                            |                                     | 8.0                                                                                          |            |     |
| Learning profile                            | academic                                                                                                                                                                                                                                                                                         |                                                          | Assessment form                         |                                     | exam                                                                                         |            |     |
| Conducting unit                             | Department of Investment and Real Estate -> Faculty of Management -> Rector                                                                                                                                                                                                                      |                                                          |                                         |                                     |                                                                                              |            |     |
| Name and surname of lecturer (lecturers)    | Subject supervisor                                                                                                                                                                                                                                                                               |                                                          | dr hab. inż. Małgorzata Rymarzak        |                                     |                                                                                              |            |     |
|                                             | Teachers                                                                                                                                                                                                                                                                                         |                                                          |                                         |                                     |                                                                                              |            |     |
| Lesson types                                | Lesson type                                                                                                                                                                                                                                                                                      | Lecture                                                  | Tutorial                                | Laboratory                          | Project                                                                                      | Seminar    | SUM |
|                                             | Number of study hours                                                                                                                                                                                                                                                                            | 20.0                                                     | 20.0                                    | 12.0                                | 0.0                                                                                          | 0.0        | 52  |
|                                             | E-learning hours included: 0.0                                                                                                                                                                                                                                                                   |                                                          |                                         |                                     |                                                                                              |            |     |
|                                             | Additional information: <ul style="list-style-type: none"><li>• Problem-based lecture</li><li>• Lecture with multimedia presentation</li><li>• Discussion</li><li>• Project method (research, implementation, practical project)</li><li>• Group work</li><li>• Computer lab exercises</li></ul> |                                                          |                                         |                                     |                                                                                              |            |     |
| 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                                                                                                                                                                                                                                                                            | 52                                                       |                                         | 49.0                                |                                                                                              | 99.0       | 200 |
| 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_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 can correctly use basic legal acts regulating 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 can search for the necessary information for the technical management of real estate.                                                                                                                                                                                                                                                                                                                                 | [SU2] 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 of the technical management of real estate and understands its relationship with other social sciences.                                                                                                                                                                                                                                                                                        | [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 willing to work in groups, co-create them or manage them. The student can think and act in an entrepreneurial way for the needs of technical management of real estate.                                                                                                                                                                                                                                            | [SK2] 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 detailed, structured knowledge of technical real estate management.                                                                                                                                                                                                                                                                                                                                               | [SW4] test/exam - oral or written       |
|                                 | [ZARZL3_U04] The student is able to use the acquired knowledge of management science and quality in professional practice.                                                                                                                                                              | The student can apply acquired knowledge in the field of technical real estate management in professional practice.                                                                                                                                                                                                                                                                                                               | [SU2] presentation/project/paper/report |
|                                 | [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 acquired knowledge and skills in technical real estate management.                                                                                                                                                                                                                                                                                                      | [SK2] presentation/project/paper/report |
| Subject contents                | 1. Basics of construction<br><br>2. Review of technologies in construction<br><br>3. Investment process in construction<br><br>4. Assessment of the technical condition of buildings<br><br>5. Cost estimation<br><br>6. Management of the implementation of FIDIC investment projects: |                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                         |
| Prerequisites and co-requisites |                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                         |
| Assessment methods and criteria | Subject passing criteria                                                                                                                                                                                                                                                                | Passing threshold                                                                                                                                                                                                                                                                                                                                                                                                                 | Percentage of the final grade           |
|                                 | partial test 3                                                                                                                                                                                                                                                                          | 51.0%                                                                                                                                                                                                                                                                                                                                                                                                                             | 25.0%                                   |
|                                 | project                                                                                                                                                                                                                                                                                 | 51.0%                                                                                                                                                                                                                                                                                                                                                                                                                             | 25.0%                                   |
|                                 | partial test 1                                                                                                                                                                                                                                                                          | 51.0%                                                                                                                                                                                                                                                                                                                                                                                                                             | 25.0%                                   |
|                                 | partial test 2                                                                                                                                                                                                                                                                          | 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.<br>2. Maj T., Sporządzanie kosztorysów, WSiP, Warszawa 2015.<br>3. Popek M., Wapińska B., Podstawy budownictwa. Podręcznik, WSiP, Warszawa 2013.<br>4. Rymarzak M., Zarządzanie nieruchomościami przedsiębiorstw w Polsce, CeDeWu, Warszawa 2009, rozdział 2. |                                         |

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|----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                | Supplementary literature                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <ol style="list-style-type: none"> <li>1. Popek M., Wapińska B., Budownictwo ogólne. Podręcznik, WSiP, Warszawa 2013.</li> <li>2. Kowalczyk Z., Zabielski J., Kosztorysowanie i normowanie w budownictwie, WSiP, Warszawa 2011.</li> <li>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).</li> <li>4. Izba Projektowania Budowlanego, Środowiskowe zasady obliczania wartości kosztorysowej inwestycji budowlanych, Warszawa 2003.</li> <li>5. Ustawa z dnia 7 lipca 1994 r. Prawo budowlane (Dz. U. 1994 Nr 89 poz. 414 z późn. zm.).</li> <li>6. Rozporządzenie Ministra Infrastruktury z dnia 12 kwietnia 2002 r. w sprawie warunków technicznych, jakim powinny odpowiadać budynki i ich usytuowanie (z późn. zm.).</li> <li>7. Rozporządzenie Ministra Spraw Wewnętrznych i Administracji z dnia 16 sierpnia 1999 r. w sprawie warunków technicznych użytkowania budynków mieszkalnych (z późn. zm.).</li> <li>8. Jurga R., Weiss I., Inwestycje budowlane, C.H.Beck, Warszawa 1999.</li> <li>9. Fabijański M., Kacprzyk B., Sielewicz O., Metody kosztorysowania robót budowlanych, WACETOB, Warszawa 2008.</li> <li>10. Pliszka E. (red.) Vademecum budowlane, Arkady Warszawa 2001.</li> <li>11. Warunki kontraktu na realizację EPC/pod-klucz (FIDIC zielony edycja 1999), Wydawnictwo Cosmopoli, Warszawa 2000.</li> <li>12. Warunki Kontraktu na Budowę (FIDIC czerwony edycja 2017), Wydawnictwo SIDIr, Warszawa 2017.</li> <li>13. Warunki Kontraktu na urządzenia i budowę z projektowaniem (FIDIC żółty edycja 2017), Wydawnictwo SIDIr, Warszawa 2017.</li> <li>14. Warunki Kontraktowe FIDIC dla projektowania, budowy i obsługi (FIDIC złoty edycja 2008), Wydawnictwo SIDIr, Warszawa 2010.</li> </ol> |
|                                                                | eResources addresses                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Example issues/<br>example questions/<br>tasks being completed | <p>Technical wear and tear of a building results from:</p> <ul style="list-style-type: none"> <li>- utility solutions, the way the building is finished and equipped with technical devices, the purpose that makes it difficult or impossible to change the way it is used,</li> <li>- age of the building, durability of the materials used, quality of construction work,</li> <li>- atmospheric pollution, lack of sunlight, watercourses, ecological threats.</li> </ul> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Work placement                                                 | Not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

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