



Subject card

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|---|--|--|----------|-------------------------------------|---|------------|-----|
| Subject name and code | Building structures and technologies I, PG_00052633 | | | | | | |
| Field of study | Architecture | | | | | | |
| Date of commencement of studies | October 2022 | Academic year of realisation of subject | | | 2023/2024 | | |
| Education level | first-cycle studies | Subject group | | | Obligatory subject group in the field of study | | |
| Mode of study | Full-time studies | Mode of delivery | | | at the university | | |
| Year of study | 2 | Language of instruction | | | English | | |
| Semester of study | 4 | ECTS credits | | | 2.0 | | |
| Learning profile | general academic profile | Assessment form | | | assessment | | |
| Conducting unit | Department of Technical Fundamentals of Architecture Design -> Faculty of Architecture | | | | | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | mgr inż. Tomasz Zybala | | | | | |
| | Teachers | mgr inż. Tomasz Zybala | | | | | |
| Lesson types and methods of instruction | Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
| | Number of study hours | 30.0 | 0.0 | 0.0 | 0.0 | 0.0 | 30 |
| | 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 | 30 | | 2.0 | | 18.0 | 50 |
| Subject objectives | To learn about the technical issues involved in producing an architectural design. | | | | | | |
| Learning outcomes | Course outcome | Subject outcome | | | Method of verification | | |
| | [K6_W01] knows and understands construction problems, building and engineering issues related to building design; principles, solutions, constructions and building materials used in simple engineering tasks in the field of architectural and urban design | The student knows and understands the problems of construction, building and engineering problems associated with building design; principles, solutions, constructions and construction materials used in carrying out simple engineering tasks engineering tasks in architectural and urban planning | | | [SW3] Assessment of knowledge contained in written work and projects [SW2] Assessment of knowledge contained in presentation | | |
| | [K6_U01] is able to use the experience gained during studies to critically analyze the conditions and formulate conclusions for design in an interdisciplinary context | The student is able to use the experiences gained during the course of study in order to critically analyse conditions and to formulate conclusions for design in an interdisciplinary context | | | [SU5] Assessment of ability to present the results of task [SU3] Assessment of ability to use knowledge gained from the subject [SU1] Assessment of task fulfilment | | |
| Subject contents | Basic types of building structures, subdivision, definitions. Basic issues related to reinforced concrete and masonry structures. Selected issues of fire safety regulations. Finishing work. Building elements e.g. stairs, façade systems and claddings, glazed walls, curtain walls, suspended ceilings, floors and flooring, etc. suspended ceilings, floors and flooring, etc. Relationship between load and stress and strain in reinforced concrete elements. | | | | | | |
| Prerequisites and co-requisites | Knowledge of general construction and materials science | | | | | | |

| Assessment methods and criteria | Subject passing criteria | Passing threshold | Percentage of the final grade |
|--|---|---|-------------------------------|
| | presentation | 60.0% | 20.0% |
| | test | 60.0% | 80.0% |
| Recommended reading | Basic literature | <p>Panas J. red., Nowy poradnik majstra budowlanego, Arkady 2012</p> <p>Żenczykowski W., Budownictwo ogólne, Warszawa, Arkady, 1986.</p> <p>Różycki S., Budownictwo ogólne 3-4, Gdańsk 1966 Budownictwo ogólne, T 1 Materiały i wyroby budowlane, Warszawa Arkady, 2007 Budownictwo ogólne, T 3 Elementy budynków. Podstawy projektowania, Warszawa Arkady, 2008 Budownictwo ogólne, T 4 Konstrukcja budynków, Warszawa Arkady, 2014</p> <p>Łapko A.: Projektowanie konstrukcji żelbetowych, Arkady, Warszawa 2001</p> <p>Łapko A., Jensen B. Ch.: Podstawy projektowania i algorytmy obliczeń konstrukcji żelbetowych, Arkady, Warszawa 2005</p> | |
| | Supplementary literature | <p>P. Hyks, M. Gaborik, O. Vrana, Schody, Arkady 1984</p> <p>Markiewicz Przemysław, Budownictwo ogólne dla architektów, Archi-Plus 2011 (wyd. 4)</p> <p>Markiewicz Przemysław, Detale projektowe dla architektów, Archi-Plus 2010 (wyd. 1)</p> <p>Hoła J., Pietraszek P., Schabowicz K.: Obliczenia budynków wznoszonych tradycyjnie, Dolnośląskie Wydawnictwo Edukacyjne, Wrocław 2006.</p> <p>Starosolski W., Konstrukcje żelbetowe, Wydawnictwo Naukowe PWN, W-wa 2007.</p> <p>Kobiak J., Stachurski W.: Konstrukcje żelbetowe, Arkady, Warszawa 1984.</p> | |
| | eResources addresses | <p>Adresy na platformie eNauczanie: BUILDING STRUCTURES AND TECHNOLOGIES - Moodle ID: 38283 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=38283</p> | |
| Example issues/ example questions/ tasks being completed | <ol style="list-style-type: none"> 1. Main stair shape / steps finishing (give examples of materials) 2. Reasons for using suspended ceilings / types of suspended ceilings 3. Why do we make partition walls? 4. Partition walls construction types. | | |
| Work placement | Not applicable | | |