



Subject card

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| Subject name and code | Planning and organization of railway works, PG_00062463 | | | | | | |
| Field of study | Transport | | | | | | |
| Date of commencement of studies | February 2024 | | Academic year of realisation of subject | | 2024/2025 | | |
| Education level | second-cycle studies | | Subject group | | | | |
| Mode of study | Full-time studies | | Mode of delivery | | at the university | | |
| Year of study | 1 | | Language of instruction | | Polish | | |
| Semester of study | 2 | | ECTS credits | | 3.0 | | |
| Learning profile | general academic profile | | Assessment form | | assessment | | |
| Conducting unit | Faculty of Civil and Environmental Engineering | | | | | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | | dr inż. Zbigniew Kędra | | | | |
| | Teachers | | dr inż. Kamila Szwackiewicz | | | | |
| | | | dr inż. Zbigniew Kędra | | | | |
| Lesson types and methods of instruction | Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
| | Number of study hours | 15.0 | 0.0 | 15.0 | 15.0 | 0.0 | 45 |
| | 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 | 45 | | 5.0 | | 25.0 | 75 |
| Subject objectives | The aim of the course is to teach students how to plan track works in the field of: costing, organization and scheduling of repairs railway works. | | | | | | |
| Learning outcomes | Course outcome | | Subject outcome | | Method of verification | | |
| | [K7_K02] makes competent and ethical decisions, caring for the public interest and maintaining economic, social and environmental values | | Makes competent and economical decisions when planning and organizing railway works | | [SK5] Assessment of ability to solve problems that arise in practice | | |
| | [K7_U05] cooperates with other people in the implementation of team work, both as a leader and a team member, effectively achieving set goals | | Is able to cooperate in a group when implementing issues related to planning and organizing railway track repairs | | [SU1] Assessment of task fulfilment [SU4] Assessment of ability to use methods and tools | | |
| | [K7_W01] identifies in an in-depth way phenomena related to the field of study as well as theories describing them and possible methods of analyzing processes occurring in the life cycle of technical systems | | He has in-depth knowledge of planning and organizing railway works. | | [SW1] Assessment of factual knowledge | | |
| | [K7_U02] presents logical and solid arguments regarding the obtained results, through analysis, synthesis of information in various technical contexts, critically approaching their interpretation | | It presents logical arguments for the adopted technological and organizational solutions. | | [SU5] Assessment of ability to present the results of task [SU2] Assessment of ability to analyse information | | |
| | [K7_K01] recognizes the importance of knowledge related to the field of study in solving cognitive and practical problems | | Is aware of the importance of knowledge in the field of planning and organizing railway works | | [SK1] Assessment of group work skills [SK5] Assessment of ability to solve problems that arise in practice | | |

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| Subject contents | <p>Lectures: Characteristics and scope of rail road maintenance. Planning railway works. Bill of quantities. Cost estimation rules for railway works. Types and rules of execution of work schedules. Rules for preparing line schedules. Rules for preparing complex schedules. Technology and organization of railway works. Mechanization of railway works.</p> <p>Project end laboratory: Elaboration of technology, organization and planning of selected track works (track tamping, ballast cleaning, rail grinding, track and turnout ballasting, material transport, earthworks). Execution of the bill of quantities of railway works. Preparation of cost estimate for railway works. Planning the organization of railway works. Schedule of a repair. Discussion and presentation of the planned repair.</p> | | |
| Prerequisites and co-requisites | Knows the basic technologies of railway works and the basics of their planning. | | |
| Assessment methods and criteria | Subject passing criteria | Passing threshold | Percentage of the final grade |
| | Lecture | 50.0% | 40.0% |
| | Exercises | 60.0% | 30.0% |
| | Laboratory | 100.0% | 30.0% |
| Recommended reading | Basic literature | Kędra Z.: Technologia robót torowych. Wydawnictwo Politechniki Gdańskiej, Gdańsk, 2017. | |
| | | Warunki techniczne wykonania i odbioru robót nawierzchniowo-podtorzowych. Id-114, PKP PLK S.A. | |
| | | Kędra Z.: Materiały dydaktyczne z wykładów do przedmiotu . | |
| | Supplementary literature | KNR 2-37 Nawierzchnie kolejowe w torach o prześwicie normalnym | |
| | | KNR W-2-37 Budowa i remont nawierzchni torowych, tory o prześwicie normalnym 1435 mm | |
| | | KNP 16 Roboty torowe | |
| | eResources addresses | Adresy na platformie eNauczanie: Utrzymanie dróg szynowych - Transport - 2024/25 - Moodle ID: 35166 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=35166 | |
| Example issues/ example questions/ tasks being completed | | | |
| Work placement | Not applicable | | |

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