



Subject card

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|---|--|---|-------------------------------------|------------|--|------------------------|-----|
| Subject name and code | , PG_00070550 | | | | | | |
| Field of study | Civil Engineering | | | | | | |
| Date of commencement of studies | October 2022 | Academic year of realisation of subject | | | | 2025/2026 | |
| Education level | first-cycle studies | Subject group | | | | Optional subject group | |
| Mode of study | Full-time studies | Mode of delivery | | | | at the university | |
| Year of study | 4 | Language of instruction | | | | Polish | |
| Semester of study | 8 | ECTS credits | | | | 2.0 | |
| Learning profile | general academic profile | Assessment form | | | | assessment | |
| Conducting unit | Department of Transportation Engineering -> Faculty of Civil and Environmental Engineering -> Faculties of Gdańsk University of Technology | | | | | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | | dr inż. Zbigniew Kędra | | | | |
| | Teachers | | dr inż. Zbigniew Kędra | | | | |
| Lesson types | Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
| | Number of study hours | 15.0 | 15.0 | 0.0 | 0.0 | 0.0 | 30 |
| | E-learning hours included: 0.0 | | | | | | |
| | eNauczanie source addresses: Moodle ID: 2566 Technologia napraw torowych 2025/26 (Budownictwo I st.) https://enauczanie.pg.edu.pl/2025/course/view.php?id=2566 | | | | | | |
| 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 | 0.0 | | 0.0 | 30 | |
| Subject objectives | To acquaint students with technologies repair the tracks and subgrade. The choice of appropriate technology repair, machinery and equipment. | | | | | | |
| Learning outcomes | Course outcome | Subject outcome | | | Method of verification | | |
| | [K6_K01] Is aware of the key aspects of professional, ethical and social responsibility related to management, business operation, decision making and opinion formulation in civil engineering. | Is aware of the responsibility for the decisions made and opinions expressed in railway construction. | | | [SK5] Assessment of ability to solve problems that arise in practice | | |
| | [K6_U05] Conducts research (obtaining information, simulations, experimental methods) in the field of construction in order to solve specific tasks and report research results. | Obtains information to solve problems related to the design of railway track repair technologies | | | [SU1] Assessment of task fulfilment [SU5] Assessment of ability to present the results of task | | |
| | [K6_W03] Demonstrate knowledge and understanding of the processes, established standards and design methods in the civil engineering subject area and of their limitations. | Demonstrates knowledge of railway track repair technology. | | | [SW1] Assessment of factual knowledge | | |
| | [K6_K04] Engages in independent lifelong learning and individually follows the development of science and technology in the field of civil engineering. | Engages in independent learning in the area of railway repairs. | | | [SK1] Assessment of group work skills | | |
| | [K6_K03] Can effectively, clearly and unambiguously convey information, describe activities and communicate their results/ outcomes to engineers or a wider audience using appropriate communication methods and tools. | Is able to clearly and unambiguously discuss the scope of the completed task. | | | [SK4] Assessment of communication skills, including language correctness [SK2] Assessment of progress of work | | |

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| Subject contents | <p>Course content – lecture Maintenance and repair of railway tracks. Mechanization railway works. Grinding rails. Tamping the track. Cleaning of ballast. Welding of rails. Modern machinery for construction and maintenance of railways.</p> <p>Course content – exercises</p> <p>Project implementation - description of the scope of work, - calculation of completion time and development of a schedule, - securing the work site, - discussion of safety regulations.</p> | | |
| Prerequisites and co-requisites | Railways | | |
| Assessment methods and criteria | Subject passing criteria | Passing threshold | Percentage of the final grade |
| | Midterm colloquium | 50.0% | 50.0% |
| | Project task | 100.0% | 50.0% |
| Recommended reading | Basic literature | Kędra Z.: Technology of rail track work. Wydawnictwo Politechniki Gdańskiej, Gdańsk 2015. | |
| | Supplementary literature | Publications relating to railway machines. | |
| | eResources addresses | | |
| Example issues/ example questions/ tasks being completed | | | |
| Practical activities within the subject | Not applicable | | |

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