



Subject card

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|---|--|---|-------------------|-------------------------------------|---|------------|-----|
| Subject name and code | Diagnostics of railways, PG_00044674 | | | | | | |
| Field of study | Transport | | | | | | |
| Date of commencement of studies | October 2020 | Academic year of realisation of subject | | | 2022/2023 | | |
| Education level | first-cycle 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 | | | 4.0 | | |
| Learning profile | general academic profile | Assessment form | | | exam | | |
| Conducting unit | Faculty of Civil and Environmental Engineering | | | | | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | dr inż. Zbigniew Kędra | | | | | |
| | Teachers | dr inż. Zbigniew Kędra | | | | | |
| Lesson types and methods of instruction | Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
| | Number of study hours | 30.0 | 0.0 | 0.0 | 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 | | 10.0 | | 45.0 | 100 |
| Subject objectives | The aim of the course is to familiarize students with the diagnostics of railroads and to teach basic methods and techniques for measuring and assessing the condition of the railroad. | | | | | | |
| Learning outcomes | Course outcome | Subject outcome | | | Method of verification | | |
| | [K6_U13] able to select tools and methods, carry out assessments and simple tests of transport infrastructure and means of transport to an extent required of the specialty / learning profile | Can select tools and methods as well as carry out simple measurements and assessment of the condition of the railroad | | | [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 | | |
| | [K6_W18] has proficiency in transport infrastructure as appropriate for their specialty | Has ordered knowledge in the field of railway road diagnostics | | | [SW1] Assessment of factual knowledge | | |
| Subject contents | Railroad diagnostics. Track geometry quality. Diagnostics of railway track elements. Diagnostics of railway turnouts. Diagnostics of the CWR. | | | | | | |
| Prerequisites and co-requisites | | | | | | | |
| Assessment methods and criteria | Subject passing criteria | | Passing threshold | | Percentage of the final grade | | |
| | Exam | | 50.0% | | 50.0% | | |
| | Project | | 50.0% | | 50.0% | | |

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| Recommended reading | Basic literature | <p>Warunki techniczne utrzymania nawierzchni na liniach kolejowych Id-1 (D-1)</p> <p>Warunki techniczne utrzymania podtorza kolejowego Id-3</p> <p>Instrukcja o oględzinach, badaniach technicznych i utrzymaniu rozjazdów Id-4</p> <p>Instrukcja diagnostyki nawierzchni kolejowej Id-8</p> <p>Instrukcja o dokonywaniu pomiarów, badań i oceny stanu torów Id-14 (D-75)</p> |
| | Supplementary literature | <p>Instrukcja o dozorowaniu linii kolejowych Id-7</p> <p>Instrukcja badań defektoskopowych szyn, spoin i zgrzein w torach kolejowych Id-10 (D-16)</p> <p>Wytyczne ultradźwiękowych badań złączy szynowych zgrzewanych i spawanych Id-17</p> <p>Instrukcja dla toromistrza Id-9 (D-15)</p> |
| | eResources addresses | <p>Adresy na platformie eNauczenie:</p> <p>Diagnostyka dróg szynowych - Transport - 2022/23 - Moodle ID: 28933 https://enauczenie.pg.edu.pl/moodle/course/view.php?id=28933</p> |
| Example issues/ example questions/ tasks being completed | | |
| Work placement | Not applicable | |