GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

| | | | |
|---|---|---|---|
| Subject name and code | Thesis Seminar , PG_00041398 | | |
| Field of study | Civil Engineering | | |
| Date of commencement of studies | February 2023 | Academic year of realisation of subject | 2023/2024 |
| Education level | second-cycle studies | Subject group | Optional subject group |
| Mode of study | Full-time studies | Mode of delivery | at the university |
| Year of study | 2 | Language of instruction | Polish |
| Semester of study | 3 | ECTS credits | 3.0 |
| Learning profile | general academic profile | Assessment form | assessment |
| Conducting unit | Department of Railway Engineering -> Faculty of Civil and Environmental Engineering | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | prof. dr hab. inż. Eligiusz Mieloszyk | |
| | Teachers | | |

**Lesson types and methods of instruction**

| Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
|---|---|---|---|---|---|---|
| Number of study hours | 0.0 | 0.0 | 0.0 | 0.0 | 45.0 | 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 subject is to learn about modern solutions in the range of railroads' construction, design and building on the basis of source material study.

**Learning outcomes**

| Course outcome | Subject outcome | Method of verification |
|---|---|---|
| [K7_U09] is able to design railway tracks of complex geometry on sections and stations, both newly designed and renovated; can make a plan and perform diagnostic of railway track and to interpret its results, propose conclusions; can evaluate durability and reliability of railroad elements | the student can design the complex track geometric systems of railway lines and stations, newly built as well as modernized, he can schedule and perform the diagnostic tests in the range of railway roads | |
| [K7_K01] is aware of necessity of professional competences improvement; obeys the professional ethics code | the student is conscious of the necessity of improving the competences and skills, the student enhances the knowledge regarding modern processes and new technologies in the field of railways, the student follows the rules of professional ethics | |
| [K7_K02] Rocognizes the significance of knowledge in solving cognitive and practical problems; reliably evaluates results of his own and team research | the student can be responsible for reliability of the obtained results and can perform the assessment of his team | |
| [K7_W08] has deep knowledge of railway track construction, including high speed railroads; design and renovation of railroads of complex geometry; has detailed knowledge about diagnistics of railroads, knows basics of railway traffic organisation and control | the student has a structured and theoretical knowledge with the railways' construction and design of complex track geometric systems on railway lines and stations | |

<table>
<tr><td>Subject contents</td><td>Speech of students on the following topics: 1) Characteristics of high-speed rail line (Japan, Germany, France and Italy - and other European countries, including Poland); 2) Construction of the ballastless track structure used in European and Japanese railways; 3) Fastening systems used in Europe; 4) Modern construction of the classic turnouts (in terms of the materials used), and of the turnouts with movable frog; 5) Modern tram track structure used in Poland and in Europe; 6) Diagnostic instruments. New types of rail damages. New catalogue of damages.</td></tr>
<tr><td>Prerequisites and co-requisites</td><td></td></tr>
<tr><td>Assessment methods and criteria</td><td>
<table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>presentation</td><td>60.0%</td><td>40.0%</td></tr>
<tr><td>performance of the paper</td><td>60.0%</td><td>60.0%</td></tr>
</table>
</td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td>1. The articles and conference papers regarding the subject matter of railways.<br><br>2. The materials available on the Internet.<br><br>3. The materials delivered by lecturer.</td></tr>
<tr><td>Supplementary literature</td><td>the law concerning the rail infrastructure</td></tr>
<tr><td>eResources addresses</td><td>Adresy na platformie eNauczanie:</td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td>the thematic area of undertaken questions is very wide</td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
</table>