



Subject card

|   |  |  |   |                                     |  |            |     |
|---|--|--|---|-------------------------------------|--|------------|-----|
| Subject name and code                       | , PG_00061720  |  |   |                                     |  |            |     |
| Field of study                              | Environmental Engineering  |  |   |                                     |  |            |     |
| Date of commencement of studies             | October 2025   | Academic year of realisation of subject                  |   |                                     | 2025/2026  |            |     |
| Education level                             | second-cycle studies   | Subject group  |   |                                     | Optional subject group   |            |     |
| Mode of study                               | Part-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                             | Department Of Geotechnical And Hydraulic Engineering -> Faculty Of Civil And Environmental Engineering -> Wydział Politechniki Gdańskiej     |  |   |                                     |  |            |     |
| Name and surname of lecturer (lecturers)    | Subject supervisor   | dr inż. Angelika Duszyńska                               |   |                                     |  |            |     |
|   | Teachers   |  |   |                                     |  |            |     |
| Lesson types and methods of instruction     | Lesson type  | Lecture  | Tutorial  | Laboratory                          | Project  | Seminar    | SUM |
|   | Number of study hours  | 20.0   | 0.0   | 0.0                                 | 10.0   | 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   |   | 3.0                                 |  | 43.0       | 76  |
| Subject objectives                          | To familiarize students with technical solutions used in geoengineering.   |  |   |                                     |  |            |     |
| Learning outcomes                           | Course outcome   |  | Subject outcome   |                                     | Method of verification   |            |     |
|   | K7_U06   |  | student is able to use the acquired methods of land reclamation and mathematical models to solve problems in environmental geoengineering |                                     | [SU4] Assessment of ability to use methods and tools                 |            |     |
|   | K7_W05   |  | student has knowledge about the influence of engineering activities on environment  |                                     | [SW3] Assessment of knowledge contained in written work and projects |            |     |
|   | K7_U03   |  | student is able to design elements of structures protecting slopes  |                                     | [SU4] Assessment of ability to use methods and tools                 |            |     |
| Subject contents                            | contaminant transport in soils, soil improvement, protection of slopes, geotechnical design, Earth's natural resources, environmental impact |  |   |                                     |  |            |     |
| Prerequisites and co-requisites             | completed courses on geotechnical engineering or similar courses   |  |   |                                     |  |            |     |
| Assessment methods and criteria             | Subject passing criteria   |  | Passing threshold   |                                     | Percentage of the final grade  |            |     |
|   |  |  | 0.0%  |                                     | 0.0%   |            |     |
|   | evaluation of projects   |  | 60.0%   |                                     | 100.0%   |            |     |

|                     |  |  |
|---------------------|--|--|
| Recommended reading | Basic literature   | <p>Zadroga B., Olańczuk-Neyman K., Ochrona i rekultywacja podłoża gruntowego, Wydawnictwo Politechniki Gdańskiej, 2001</p> <p>Malina G., Likwidacja zagrożenia środowiska gruntowo-wodnego na terenach zanieczyszczonych, Wydawnictwo Politechniki Częstochowskiej, 2007</p> <p>PN-EN 1997 Eurokod 7: Projektowanie geotechniczne</p> <p>Pisarczyk S.: Geoinżynieria. Metody modyfikacji podłoża gruntowego, Oficyna Wydawnicza Politechniki Warszawskiej, Warszawa 2014.</p> <p>Stryczek S.: Podstawy geoinżynierii. Wydawnictwo AGH. Kraków 2021<br/> qUrbański (red.): Podstawy projektowania geotechnicznego. Wprowadzenie do nowych technologii w geotechnice, Wydawnictwo Politechniki Krakowskiej, 2016</p> |
|                     | Supplementary literature                                       | nie dotyczy  |
|                     | eResources addresses   | Adresy na platformie eNauczanie:   |
|                     | Example issues/<br>example questions/<br>tasks being completed | stability of slopes, impact of changes in the groundwater level on the environment, spread of pollutants, soil improvement   |
| Work placement      | Not applicable   |  |

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