GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

| | | | |
|---|---|---|---|
| Subject name and code | , PG_00072692 | | |
| Field of study | Recycling and Energy Recovery | | |
| Date of commencement of studies | October 2026 | Academic year of realisation of subject | 2026/2027 |
| Education level | first-cycle studies | Subject group | Obligatory subject group in the field of study<br>Humanistic-social 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 | 1 | ECTS credits | 3.0 |
| Learning profile | general academic profile | Assessment form | assessment |
| Conducting unit | Department of Environmental Engineering Technology -> Faculty of Civil and Environmental Engineering -> Faculties of Gdańsk University of Technology | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | prof. dr hab. inż. Magdalena Gajewska | |
| | Teachers | mgr inż. Alicja Kupczyk<br>prof. dr hab. inż. Magdalena Gajewska | |

**Lesson types**

| Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
|---|---|---|---|---|---|---|
| Number of study hours | 20.0 | 20.0 | 0.0 | 0.0 | 0.0 | 40 |

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 | 40 | 0.0 | 0.0 | 40 |

**Subject objectives**

Getting to know the meanings of the concepts: ecology and sustainable development, as well as the principles and goals of sustainable development.

**Learning outcomes**

| Course outcome | Subject outcome | Method of verification |
|---|---|---|
| [K6_W71] has general knowledge in humanistic, social, economic or legal sciences | Has general knowledge in the field of ecology or social and economic sciences | [SW2] Assessment of knowledge contained in presentation |
| [K6_K71] is conscious of the need to apply knowledge from humanistic, social, economic or legal sciences in order to function in a social environment | Is aware of the need to use knowledge from the fields of humanities, social sciences, economics, or law in functioning within the social environment. | [SK4] Assessment of communication skills, including language correctness |
| [K6_U71] is able to apply knowledge from humanistic, social, economic or legal sciences in order to solve problems in a social environment | Can apply knowledge from the fields of humanities, social sciences, or economics to solve problems in the social environment." | [SU3] Assessment of ability to use knowledge gained from the subject |

| | |
|---|---|
| Subject contents | Course content – lecture<br>1.<br>**Fundamentals of Climate Change and the Consequences of Anthropogenic Activity**<br>2.<br>**Climate Walk – an Educational Walk on Climate Change**<br>3.<br>**Fundamentals of Sustainable Development, Sustainable Development Assessment Tools, and Product Life Cycle**<br>4.<br>**Principles and Goals of Sustainable Development:**<br>a. Analysis of the Sustainable Development Goals (SDGs) established by the United Nations.<br>b. Examples of sustainable development initiatives and actions around the world.<br>5.<br>**Circular Economy**<br>6.<br>**Ecosystem Functions and Global Environmental Challenges:**<br>Biodiversity conservation. The impacts of climate change. Natural resource management.<br>7.<br>**Human Ecology and the Impact of Human Activities on the Environment:**<br>a. Environmental problems related to urbanization, pollution, and climate change.<br>b. Concepts of sustainable development.<br>8.<br>**Sustainable Lifestyle:**<br>a. Environmental education.<br>b. Climate change adaptation and mitigation.<br>c. Encouraging environmentally responsible choices in everyday life.<br><br>Course content – exercises<br>with accordience to the lactures |
| Prerequisites and co-requisites | |

Assessment methods and criteria

| Subject passing criteria | Passing threshold | Percentage of the final grade |
|---|---|---|
| lectures - test | 55.0% | 60.0% |
| exercised - task execution | 55.0% | 40.0% |

| | |
|---|---|
| Recommended reading | |
| Basic literature | Małgorzata Lipińska-Rzeszutek, Mariusz KubiakWspółczesne bezpieczeństwo ekologiczne,(2017),<br><br>Wprowadzenie do ekologii biochemicznej,S. A. Ostroumow, (1992), Wydawnictwo: PWN<br><br>Droga do zrównoważonego rozwoju w Polsce w świetle założeń agendy2030, ( 2022) Barbara Hadryjańska |
| Supplementary literature | https://sdgs.un.org/goals,<br><br>https://www.imf.org/en/About/Factsheets/Sheets/2023/IMF-Sustainable-development-goals-SDGs |
| eResources addresses | |

| | |
|---|---|
| Example issues/ example questions/ tasks being completed | *What do you know about networks of protected areas in Europe?*<br><br>*When did the first international actions and agreements on environmental protection take place, and what did they involve?*<br><br>*Discuss the key issues related to the protection of water resources?*<br><br>*Why do air and atmospheric pollution have a global character?*<br><br>*Explain the concept of sustainable development?*<br><br>*Provide the goals of sustainable development?*<br><br>*Explain the significance of the individual 17 sustainable development goals.*<br><br>*What do the terms mitigation, adaptation mean... provide examples?* |
| Practical activites within the subject | Not applicable |

Document generated electronically. Does not require a seal or signature.