University of Gdańsk

# Subject card

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|---|---|---|---|
| Subject name and code | Ecology, PG_00103625 | | |
| Field of study | Environmental Protection | | |
| Date of commencement of studies | October 2024 | Academic year of realisation of subject | 2024/2025 |
| Education level | Bachelor's studies | Subject group | Obligatory subject group in the field of study |
| Mode of study | full-time studies | Mode of delivery | at the university |
| Year of study | 1 | Language of instruction | Polish |
| Semester of study | 2 | ECTS credits | 2.0 |
| Learning profile | academic | Assessment form | credit |
| Conducting unit | | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | dr hab. Agnieszka Ożarowska | |
| | Teachers | dr Katarzyna Stępniewska | |

**Lesson types**

| Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
|---|---|---|---|---|---|---|
| Number of study hours | 0.0 | 15.0 | 0.0 | 0.0 | 0.0 | 15 |

E-learning hours included: 0.0

Additional information:

Field classes - collecting field data with the methods used in ecological studies; classes outside UG campus are carried out in the Tri-City and in the Tri-City Landscape Park

**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 | 15 | 2.0 | 33.0 | 50 |

**Subject objectives**

1. Acquiring the ability to select methods appropriate for monitoring plant and animal populations.

2. Acquiring the ability to notice and determine the relationship between organisms and the environment.

3. Acquiring the ability to document and describe the material collected in the field.

## Learning outcomes

| Course outcome | Subject outcome | Method of verification |
|---|---|---|
| [OŚL3_W06] Characterises levels of life organization, biodiversity and the interaction of organisms and the environment. | The student can determine the mutual relations in the organism-environment system and explain their basis | [SW2] presentation/project/paper/ report |
| [OŚL3_U04] Uses specialist language in the discussion and properly uses the nomenclature in the field of environmental protection and individual disciplines related to it. | The student understands and applies the terminology used in ecology | [SU2] presentation/project/paper/ report |
| [OŚL3_K02] Works individually demonstrating initiative and independence in actions, and effectively cooperates in a team, performing various roles in it. | The student can work individually and in small teams | [SK8] observation of student's independent or team work |
| [OŚL3_W05] Explains the course of natural and anthropopressional physical, chemical and biological processes and phenomena occurring in nature at various levels of matter organisation. | The student can characterize and explain basic ecological phenomena and processes | [SW2] presentation/project/paper/ report |
| [OŚL3_U11] Uses statistical methods as well as algorithms and IT techniques, including application software packages to describe environmental experiments and analysis of typical data in socio-economic activities based on science and natural sciences. | The student applies basic mathematical, statistical and computer technologies to describe phenomena and analyze data used in ecology | [SU2] presentation/project/paper/ report |
| [OŚL3_U09] Prepares in Polish/ English a short description of research, observation or problem task carried out during classes using appropriate scientific terminology. | The student can present the results of his/her own experiments and field research, compare them with those obtained by others and interpret the differences | [SU2] presentation/project/paper/ report |

## Subject contents

Methods of plant and animal population monitoring.

Research of the relationship between habitat conditions and structure of animal groups, and growth form and distribution of plants.

Analysis and presentation of biological and monitoring data.

Influence of meteorological conditions on organisms distribution.

## Prerequisites and co-requisites

Basic knowledge of biology

## Assessment methods and criteria

| Subject passing criteria | Passing threshold | Percentage of the final grade |
|---|---|---|
| Attendance at classes | 85.0% | 50.0% |
| Final grade is the average grade from 2 reports | 51.0% | 50.0% |

## Recommended reading

Basic literature

1. Weiner J. Życie i ewolucja biosfery. PWN W-wa 2020

2. Krebs C.J. Ekologia eksperymentalna analiza rozmieszczenia i liczebności. PWN W-wa 2015

| | | |
|---|---|---|
| | Supplementary literature | 1. Begon M., Mortimer M., Thompson D.J.. Ekologia populacji : studium porównawcze zwierząt i roślin. Wydawnictwo. Naukowe PWN. 1999<br><br>2. Kozłowski S. 2000. Ekorozwój : wyzwanie XXI wieku. Wydaw. Naukowe PWN, 2000<br><br>3. Mackenzie A., Ball A.S., Virdee S.R. Ekologia. Krótkie wykłady. PWN W-wa 2015<br><br>4.Pullin A.S.. Biologiczne podstawy ochrony przyrody. Wydawnictwo Naukowe PWN. 2004<br><br>5. Futuyma D.J. Ewolucja. Wyd. Uniwersytetu Warszawskiego 2008<br><br>6. Wolański N. 2016. Ekologia człowieka. PWN (tomy I i II) 2016 |
| | eResources addresses | |
| Example issues/ example questions/ tasks being completed | | |
| Work placement | Not applicable | |

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