SYLLABUS

Name: ***GIS in practice (25-BI-S2-E2-GIS-AN)***
Name in Polish: **GIS w praktyce**
Name in English: ***GIS in practice***

Information on course:

Course offered by department: Faculty of Biological Sciences
Course for department: Faculty of Biological Sciences

Default type of course examination report:

Grading

Language:

English

Short description:

Prerequisites regarding knowledge, skills, and social competences for the course/module
Basic skills in Windows OS and spreadsheets.

Student's own work:
- preparation of projects: 20h
- writing project reports: 30h

Description:

Educational aims:
Acquiring the ability to use basic techniques in the field of geographic information systems (GIS) including elements of landscape ecology.

Course content:
- Types of maps used in GIS.
- Map sources, map acquisition, and adaptations for own purposes.
- Obtaining field data with the use of Global Navigation Satellite Systems (GNSS).
- Work with raster (grid) and vector numeric maps using free software: obtaining information contained in maps and creating own maps, basic methods of spatial analysis.
- Analysis of landscape characteristics.

Bibliography:

Mandatory and recommended reading list:
Chang, K. T. (2015). Introduction to geographic information systems (Vol. 4). Boston: McGraw-Hill.
Longley, P. A., Goodchild, M. F., Maguire, D. J., & Rhind, D. W. (2005). Geographic information systems and science. John Wiley & Sons.

Learning outcomes:

Intended learning outcomes
Student:

K_W02
- knows the theoretical basis of GIS and its application in various areas of science and practice;

K_W09
- acquires spatial data from various sources (own measurements, orthophotos) and calibrates and records cartographic bases in various coordinate systems;

K_U08
- uses GIS software and analyses spatial data;

K_U05
- creates own maps and manages simple spatial databases.

Assessment methods and assessment criteria:

Assessment methods for the intended learning outcomes:
- preparation and implementation of a project,
- continuous assessment of student's work during classes.

Credit requirements for individual components of the course/module:
- homework assessments,
- preparation of a project and its presentation (individual or group).

Course credits in various terms:

<without a specific program>

Type of credits	Number	First term	Last term
European Credit Transfer System (ECTS)	3	2023/24-L	