

SYLLABUS

Name: Impact of climate change on biodiversity (25-BI-S2-E3-ICCB-AN)

Name in Polish: Wpływ zmian klimatu na bioróżnorodność

Name in English: Impact of climate change on biodiversity

Information on course:

Course offered by department: Faculty of Biological Sciences

Course for department: Faculty of Biological Sciences

Default type of course examination report:

Examination

Language:

English

Short description:

Prerequisites regarding knowledge, skills, and social competences for the course/module

BSc in Biology or related sciences

Student's own work:

- reading of literature: 20h
- preparing for presentations and discussions: 20h
- preparing for the exam: 20h

Description:

Educational aims:

Extending the knowledge of the impact of climate change on living organisms, ecosystems and biodiversity.

Course content:

Lectures:

- anthropogenic climate change.
- biotic response: range and abundance changes.
- biotic response: phenological changes.
- polar ecosystem responses.
- temperate ecosystem responses.
- tropical ecosystem responses.
- climate change and freshwater ecosystems.
- climate change and marine ecosystems.
- genetic and evolutionary impacts of climate change.
- protected areas management in a changing climate.
- global greenhouse gas levels and the future of biodiversity.

Seminars:

- discussion of case studies: the impact of climate change on organisms, ecosystems and their biodiversity.

Bibliography:

Mandatory and recommended reading list:

Lovejoy T.E., Hannah L. (eds). 2005. Climate change and biodiversity. Yale University Press, New Haven, London.

Post E. 2013. Ecology of climate change. The importance of biotic interactions. Princeton University Press, Princeton and Oxford.

Houghton J. 2004. Global Warming. The Complete Briefing. Cambridge University Press, Cambridge.

Schneider S.H., Root T. (eds.) 2002. Wildlife Responses to Climate Change: North American Case Studies. Island Press, Washington, Covelo, London.

Dow K., Downing T.E. The Atlas of Climate Change; mapping the world's greatest challenge. Myriad Emissions Ltd., Brighton, UK.

Learning outcomes:

Intended learning outcomes

Student:

K_W01

- describes greenhouse effect and current climatic changes;

K_W03

- has an extended knowledge on the effect of climate change on living organisms, relationships in ecosystems and biodiversity of selected biocenoses;

K_U08

- prepares oral presentations based on various literature sources;

K_K02

- take K_K02s part in discussions and works in groups

Assessment methods and assessment criteria:

Assessment methods for the intended learning outcomes:

- Lecture:
- test;
- Seminar:
- evaluation of presentation /poster as well as materials prepared by students, engagement of students in discussions.

Credit requirements for individual components of the course/module:

- evaluation of student's presence, engagement and progress,
- presentation, poster, discussion (individual or in groups),
- exam (written) - minimum at 51% of correct replies.

Course credits in various terms:

| <without a specific program> | | | |
|--|--------|------------|-----------|
| Type of credits | Number | First term | Last term |
| European Credit Transfer System (ECTS) | 3 | 2024/25-Z | |