

SYLLABUS

Name: Evolutionary biology (25-BI-S2-E4-EB-AN)

Name in Polish: Biologia ewolucyjna

Name in English: Evolutionary biology

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 knowledge of evolutionary biology.

Student's own work:

- preparing for classes: 30h

- reading publications: 30h

Description:

Educational aims:

- to teach students how to identify, examine, assess and interpret results and problems of the scientific literature relating to evolutionary biology;
- to teach students how to use the most recent developments in evolutionary biology to address empirical and theoretical questions in evolutionary biology;
- to develop in students a scientific way of thinking about biological diversity and evolution. Course content:

Programme: evolutionary biology in mass media; evolution of genes and genomes; evolutionary ecology; macroevolution, co-evolution, diversity patterns and extinction; speciation and species; origin of life; human evolution, evolutionary psychology; human impacts on environment and evolution.

Bibliography:

Mandatory and recommended reading list:

Obligatory:

Scientific papers published in journals, e.g. Journal of Evolutionary Biology; Nature Ecology and Evolution; Methods in Evolution and Ecology

J. R. Freeland. Molecular Ecology. 3rd Edition. Wiley Blackwell.

T. G. Barraclough. The Evolutionary Biology of Species. Oxford University Press, 2019.

Additional/ non-obligatory literature:

J. A. Coyne. Faith vs Fact. Why Science and Religion are incompatible. Penguin USA, 2015

F. Ayala. Darwin's gift: to science and religion Joseph Henry Press, 2007.

Learning outcomes:

Intended learning outcomes

Student:

K_W02

-understands the mechanisms of evolution and knows the principles of classification of organisms;

K_W02

- knows the research trends, terminology and research methods used in evolutionary biology;

K_U02

- efficiently research literature focused on evolutionary biology and properly analyses data that it contains;

K_U03

- develops the ability to think synthetically through the analysis of professional literature;

K_W02

- correctly identifies and analyzes the evolutionary mechanisms behind the processes occurring in both the natural and synanthropic environments

K_U13

- uses terminology and vocabulary necessary to explain and describe biological processes.

Assessment methods and assessment criteria:

Assessment methods for the intended learning outcomes:

- oral presentation,
- discussion of case studies.

Credit requirements for individual components of the course/module:

- continuous evaluation,
- preparing presentation.

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-L	