KAPITAŁ LUDZKI
NARODOWA STRATEGIA SPÓJNOŚCI

Projekt współfinansowany przez Unię Europejską w ramach Europejskiego Funduszu Społecznego

UNIA EUROPEJSKA
EUROPEJSKI FUNDUSZ SPOŁECZNY

Course title	ECTS code
Population ecology	not defined

Name of unit administrating study

null

Studies

faculty	field of study		
Faculty of Biology	Medical Biology	type	first tier studies (BA), second tier studies (MA)
		form	full-time
		specialty	all
		specialization	all
Faculty of Biology	Biology	type	first tier studies (BA), second tier studies (MA)
		form	full-time
		specialty	all
		specialization	all
Faculty of Biology	Genetics and Experimental Biology	type	first tier studies (BA)
		form	full-time
		specialty	all
		specialization	all
Faculty of Biology	Natural Resources Conservation	type	first tier studies (BA)
		form	full-time
		specialty	all
		specialization	all

Teaching staff

dr Agnieszka Ożarowska; dr hab. Wojciech Pokora, profesor uczelni

Forms of classes, the realization and number of hours

Forms of classes

Lecture

The realization of activities

classes outside UG premises, classroom instruction, online classes

Number of hours

Lecture: 15 hours

ECTS credits

2
Estimation of working time:
Working in contact with a teacher – 15 hours
Consultations, exam – 10 hours
The unassisted student work (studying the literature, preparing case studies, presentations) – 25 hours

Total: 50 hours

The academic cycle

2022/2023 summer semester

Type of course

an elective course

Language of instruction

english

Teaching methods

Lectures with multimedia presentations
Case studies
Panel discussion

Form and method of assessment and basic criteria for eveluation or examination requirements

Final evaluation

Examination

Assessment methods

Written exam; in the case of resit exam – it is oral test

The basic criteria for evaluation

Assessment criteria or examination requirements:
obtaining 51% points on the exam: giving correct answers to more than half of the questions;
attendance of at least 85% of lectures

Method of verifying required learning outcomes

Required courses and introductory requirements

A. Formal requirements

none

B. Prerequisites

English at level B2

Aims of education

- To introduce students to the scope of ecological studies of plant and animal populations according to the current knowledge
- To recognize similarities and differences in plant and animal population characteristics
- To deepen the knowledge of the intraspecific/population ecological interactions in plants and animals
- To present and discuss the current knowledge on demography and mechanisms regulating the abundance and distribution of individuals within the population
- To present and discuss issues concerning protection, management and sustainable exploitation of wild plant and animal populations

Course contents

An overview of the definitions of a population, metapopulation, source/sink populations. Similarities and differences in plant and animal populations. Demography: population size/density, birth rate, death rate, immigration, emigration. Trends in the population size and limiting factors. Distribution of a population. Applied ecology: protection, management and sustainable exploitation of wild plant and animal vertebrate populations. Case studies.

Bibliography of literature

A. Literatura wymagana do ostatecznego zaliczenia zajęć (zdania egzaminu):

Krebs CJ. 2011. Ekologia. Eksperymentalna analiza rozmieszczenia i liczebności. PWN, Warszawa.
Begon M., Towsend CR., Harper JL. 2006. Ecology: from individuals to Ecosystems. 4. Ed. Blackwell.
Cain ML., Bowman WD., Hacker SD.2008. Ecology. Sinauer. Sunderland,
Falińska K. 1990. Osobnik, populacja, fitocenoza. PWN, Warszawa.
Begon M., Mortimer M., Thompson DJ. 1999. Ekologia populacji. Studium porównawcze roślin i zwierząt. PWN. Warszawa.
Rockwood L.L. 2006. Introduction to population ecology. Blackwell Publishing. Malden.
Newton I. 3-013. Pied populations. Harper Collins. London.

Literatura uzupełniająca

Van Gils J. A., Lisovski S., Lok T., Meissner W., Ożarowska A., de Fouw J., Rakhimberdiev E., Soloviev M. Y., Piersma T., Klaassen M. 2016. Body shrinkage due to Arctic warming reduces red knot fitness in tropical wintering range.
Science 352 (6287): 819-821; doi: 10.1126/science.aad6351.

The learning outcomes (for the field of study and specialization)

Knowledge

- explains the factors and mechanisms influencing the size/density of plant and animal populations (O_W05),
- recognizes the dynamic development of population ecology and indicates its relationships with other biological disciplines (O_W09),
- understands the relationship between fundamental population processes and the principles of sustainable use of wild plant and animal populations (O_W14)

Skills

- selects, applies and critically confronts biological information from various sources, including internet, concerning population ecology and draws reasonable conclusions on this basis (O_U03),
- draws correct conclusions based on the analysis and synthesis of data from various sources on population ecology and demographic factors (O_U07),
- speaks English at Level B2, using specialist vocabulary in population ecology in scientific discussion (O_U10, O_U13)

Social competence

- recognizes the limitations of own knowledge of population ecology and understands the need for continuous learning and development (O_K01),
- systematically updates the knowledge of population ecology and knows its practical applications (O_K08),

Contact

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