KAPITAŁ LUDZKI
NARODOWA STRATEGIA SPÓJNOŚCI

Projekt współfinansowany przez Unię Europejską w ramach Europejskiego Funduszu Społecznego

UNIA EUROPEJSKA
EUROPEJSKI FUNDUSZ SPOŁECZNY

Course title	ECTS code
Green cell factory	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 hab. Wojciech Pokora, profesor uczelni

Forms of classes, the realization and number of hours

Forms of classes

Lecture

The realization of activities

classroom instruction, online classes

Number of hours

Lecture: 15 hours

ECTS credits

2

a) Classes requiring direct participation of the academic teacher and a student:
- participation in lectures: 15 h
- participation in consultation: 10 h
- participation in the exam: 2 h

b) Student's own work:
- preparation for classes, exam, final assessment: 23 h

TOTAL: 50 hours

The academic cycle

2022/2023 winter semester

Type of course

an elective course

Language of instruction

english

Teaching methods

lecture with multimedia presentation, discussion

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

Final evaluation

Examination

Assessment methods

Written test, essay

The basic criteria for evaluation

- exam comprises questions on lecture material and additional readings specified during the lecture series
- exam: minimum 51% of points from the final written test

Method of verifying required learning outcomes

Learning outcome	Method of verification
	Knowledge
1 / 2 / 3 /	Exam
	Skills
4 / 5	essay
	Social competence
6	essay

Required courses and introductory requirements

A. Formal requirements

B. Prerequisites

basic knowledge in plant biology or plant physiology

Aims of education

Lecture: The aim of the course is to provide students with the actual knowledge, techniques, and applications of plants and plants products in science, industry and everyday life.

Course contents

Topics of the lecture:
Plants culture systems, photosynthesis as the source of plant biomass, secondary plant metabolites, GMO plants, protein overproduction in transgenic plants, isolation and purification of plant products.

Bibliography of literature

A. Literatura wymagana do ostatecznego zaliczenia zajęć (zdania egzaminu):
A.1. wykorzystywana podczas zajęć
Taiz L., Zeiger E. (red.). 2015. Plant physiology. The Benjamin/Cummings Publ. Comp. Inc.
A.2. studiowana samodzielnie przez studenta
Taiz L., Zeiger E. (red.). 2015. Plant physiology. The Benjamin/Cummings Publ. Comp. Inc.

B. Literatura uzupełniająca
Selected scientific articles

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

Knowledge

1. Student describes the structure and properties of basic types of biological macromolecules, molecular mechanisms of the metabolism pathways and sources of variability of WT and GMO plant organisms

2. Student describes the structure and functional relationships in plants at the cellular, tissue, and organic levels

3. Student is familiar with the development and current state of knowledge, as well as the latest trends in plant biology and indicates their relationship with other disciplines in the natural sciences.

Skills

4. demonstrates an ability to critically analyze and select biological information, especially that obtained from electronic resources

5. recalls technical English-language vocabulary in the field of biological sciences in everyday professional / scientific activity

Social competence

6. Student makes a critical self-assessment of their own competences, as well as updates their knowledge and improves skills

Contact

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