University of Gdańsk

Subject card

Subject name and code	Basic Techniques of Isolation and Cultivation of Algae - lecture, PG_00201301		
Field of study	Aquaculture – Business And Technology		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2027/2028
Education level	Bachelor's studies	Subject group	Obligatory subject group in the field of study
Mode of study	full-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	Polish
Semester of study	4	ECTS credits	1.0
Learning profile	practical	Assessment form	exam
Conducting unit	Department of Marine Ecosystems Functioning -> Faculty of Oceanography and Geography -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr Iwona Bubak	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	15.0	0.0	0.0	0.0	0.0	15

E-learning hours included: 0.0

Learning activity and number of study hours

Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours	Self-study	SUM
Number of study hours	15	1.0	9.0	25

Subject objectives

The aim of the course is to familiarise students with basic techniques for isolating and maintaining algal and cyanobacterial cultures.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[AKWAL3_W06] has an advanced understanding of techniques, research methods and tools used in aquaculture	Knows and discusses techniques and tools used in the isolation of cyanobacteria and algae to pure cultures and for their maintaining (curriculum content: 1-5)	[SW4] test/exam - oral or written

Subject contents

1. Media used for the culture of freshwater and marine photosynthetic organisms.
2. Basic techniques for isolation and purification of micro and macroalgae.
3. Methods of maintaining algal cultures.
4. Documentation and description of strains kept.
5. Growth characteristics of photosynthetic organisms in culture.

Prerequisites and co-requisites

none

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
exam	51.0%	100.0%

Recommended reading

Basic literature	1. Richmond, A., 2004, Podręcznik hodowli mikroalg. Biotechnology and applied phycology. Blackwell Publishing, Oxford, UK. 2. Anderson R.A., 2005, Algal culturing techniques. Elsevier Academic Press, Oxford, UK.
Supplementary literature	1. Richmond, A., 2000, Handbook of microalgal mass culture. CRC Press, Baco Raton, Florida. 2. Khanal, S.K., Surampalli, R.Y., Zhang, T.C., Lamsal, B.P., Tyagi, R.D., Kao, C.M., 2010, Bioenergy and biofuel from biowaste and biomass. ASCE, Reston, Virginia. 3. Johansen, M.N., 2012, Microalgae. Biotechnology, microbiology and energy. NOVA Science Publisher INC., New York. 4. Fogg, G.E., Thake, B., 1987, Algal Cultures and Phytoplankton Ecology. The University of Wisconsin Press, Madison, Wisconsin
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Example issues/ example questions/ tasks being completed	
Work placement	Not applicable

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