

**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	<ol style="list-style-type: none"> <li>Media used for the culture of freshwater and marine photosynthetic organisms.</li> <li>Basic techniques for isolation and purification of micro and macroalgae.</li> <li>Methods of maintaining algal cultures.</li> <li>Documentation and description of strains kept.</li> <li>Growth characteristics of photosynthetic organisms in culture.</li> </ol>						
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		<ol style="list-style-type: none"> <li>Richmond, A., 2004, Podręcznik hodowli mikroalg. Biotechnology and applied phycology. Blackwell Publishing, Oxford, UK.</li> <li>Anderson R.A., 2005, Algal culturing techniques. Elsevier Academic Press, Oxford, UK.</li> </ol>				
	Supplementary literature		<ol style="list-style-type: none"> <li>Richmond, A., 2000, Handbook of microalgal mass culture. CRC Press, Baco Raton, Florida.</li> <li>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.</li> <li>Johansen, M.N., 2012, Microalgae. Biotechnology, microbiology and energy. NOVA Science Publisher INC., New York.</li> <li>Fogg, G.E., Thake, B., 1987, Algal Cultures and Phytoplankton Ecology. The University of Wisconsin Press, Madison, Wisconsin</li> </ol>				
	eResources addresses						

Example issues/ example questions/ tasks being completed	
Work placement	Not applicable

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