



<i>Field of study</i>		Aquaculture and Fisheries				
<i>Mode of study</i>		stationary	<i>Level</i>	first cycle		
<i>Graduate's qualification</i>		inżynier				
<i>Fields of science</i>		agricultural sciences				
<i>Disciplines of science</i>		animal science and fisheries (100%)				
<i>Educational profile</i>		general academic				
<i>Module</i>						
<i>Course unit</i>		Processing of seafood by-products				
<i>Code</i>		WNOZIR/AQF/S1/				
<i>Field of specialisation</i>						
<i>Administering faculty</i>		Department of Meat Technology				
<i>ECTS</i>		6.0	<i>ECTS (forms)</i>	6.0		
<i>Form of course credit</i>		examination	<i>Language</i>	english		
<i>Electives</i>		9	<i>Elective group</i>			
<i>Form of instruction</i>	<i>Cod</i>	<i>Semester</i>	<i>Hours</i>	<i>ECTS</i>	<i>Weight</i>	<i>Credit</i>
laboratory course	L	6	30	3.0	0.50	credits
lecture	W	6	30	3.0	0.50	examination
<i>Leading teacher</i>		Sobczak Małgorzata (Malgorzata.Sobczak@zut.edu.pl)				
<i>Other teachers</i>		Lisiecki Sławomir (Slawomir.Lisiecki@zut.edu.pl), Panicz Remigiusz (rpanicz@zut.edu.pl)				
<i>Prerequisites</i>						
<i>W-1</i>	The basic knowledge of seafood raw materials characterization					
<i>W-2</i>	The student is able to make an experiment, perform simple analyzes and describe the results of the experiment. The student can use professional literature and IT tools					
<i>Module/course unit objectives</i>						
<i>C-1</i>	Knowledge and skills related to processing of seafood by-products					
<i>Course content divided into various forms of instruction</i>						<i>Number of hours</i>
<i>T-L-1</i>	Introduction, occupational health and safety in the laboratory.					1
<i>T-L-2</i>	Characterization and production of meals from seafood by-products					9
<i>T-L-3</i>	Characterization and production of protein products from seafood by-products					9
<i>T-L-4</i>	Characterization and production of hydrolysates from seafood by-products					9
<i>T-L-5</i>	Passing the practical part of the course					2
<i>T-W-1</i>	Aim of subject. Course syllabus					1
<i>T-W-2</i>	Classification of seafood by-products					3
<i>T-W-3</i>	Characterization of seafood by-products					24
<i>T-W-4</i>	Exam					2
<i>Student workload - forms of activity</i>						<i>Number of hours</i>
<i>A-L-1</i>	Practical part of the course participation					30
<i>A-L-2</i>	Preparation for passing the practise					30
<i>A-L-3</i>	Preparation of lab reports					28
<i>A-L-4</i>	Passing the practical part of the course					2
<i>A-W-1</i>	Lecture participation					30
<i>A-W-2</i>	Self study					30
<i>A-W-3</i>	Preparation for exam					28
<i>A-W-4</i>	Exam					2
<i>Teaching methods / tools</i>						
<i>M-1</i>	Lecture					
<i>M-2</i>	Practise, work in groups, lab reports.					
<i>Evaluation methods (F - progressive, P - final)</i>						
<i>S-1</i>	P	Exam				



Evaluation methods (F - progressive, P - final)

S-2	P	Test
S-3	F	Assessment of lab reports and student activity

Designed learning outcomes	Reference to the learning outcomes designed for the fields of study	Reference to Learning Outcomes for qualifications at PQF 6, 7 or 8	Reference to learning outcomes for qualifications at level 6 or 7 that enable acquiring engineering competences	Course objectives	Course content	Teaching methods	Evaluation methods
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Knowledge

AQF_1A_C25a_W01 Student has knowledge of classification and characterization of seafood by-products. Student knows basic methods, techniques, tools and materials used for solving simple engineering tasks within the scope of processing of seafood by-products.	AQF_1A_W03 AQF_1A_W16	P6S_WG P6S_WK	P6S_WG P6S_WK	C-1	T-W-1 T-W-2 T-W-3 T-W-4	M-1	S-1
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Skills

AQF_1A_C25a_U01 Student is able to plan and conduct seafood by-products process experiments, including measurements, interpretation the obtained results and draw conclusions. Student is able to use analytic, numerical and experimental methods to formulate and solve engineering tasks.	AQF_1A_U01 AQF_1A_U02 AQF_1A_U07 AQF_1A_U08 AQF_1A_U24	P6S_UK P6S_UW	P6S_UW	C-1	T-L-1 T-L-2 T-L-4 T-L-3 T-L-5	M-2	S-2 S-3
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Social competences

AQF_1A_C25a_K01 Student understands the need of learning and raising professional and personal competences, motivating other colleagues. Is able to cooperate and work in a group. Is able to perform the function of a team leader; is able to estimate the time necessary to accomplish the assigned task.	AQF_1A_K01 AQF_1A_K03 AQF_1A_K05 AQF_1A_K06	P6S_KK P6S_KO P6S_KR		C-1	T-L-1 T-L-2 T-W-1 T-L-3 T-W-2 T-L-4 T-W-3 T-L-5 T-W-4	M-1 M-2	S-3
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Outcomes	Grade	Evaluation criterion
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Knowledge

AQF_1A_C25a_W01	2,0	
	3,0	Student has basic knowledge of classification and characterization of seafood by-products. Student knows basic methods, techniques, tools and materials used for solving simple engineering tasks within the scope of processing of seafood by-products.
	3,5	
	4,0	
	4,5	
	5,0	

Skills

AQF_1A_C25a_U01	2,0	
	3,0	Student plans and conducts seafood by-products process experiments, including measurements, interpretation the obtained results and draw conclusions. Student uses analytic, numerical and experimental methods to formulate and solve engineering tasks.
	3,5	
	4,0	
	4,5	
	5,0	

Other social competences

AQF_1A_C25a_K01	2,0	
	3,0	Student understands the need of learning and raising professional and personal competences, motivating other colleagues. Student cooperates and works in a group. Student performs the function of a team leader and estimates the time necessary to accomplish the assigned task.
	3,5	
	4,0	
	4,5	
	5,0	

Required reading

1. Se-Kwon Kim, Seafood processing by-products. Trends and applications, Springer, 2014