Zachodniopomorski Uniwersytet Technologiczny w Szczecinie

Faculty of Food Sciences and Fisheries

Field of study	Aquaculture and Fisheries		
Mode of study	stationary	*Level*	first cycle
Graduate's qualification	inżynier		
Fields of science	agricultural sciences		
Disciplines of science	animal science and fisheries (100%)		
Educational profile	general academic		
Module			
Course unit	**Utilisation of seafood by-products**		
Code	WNOZIR/AQF/S1/		
Field of specialisation			
Administering faculty	Department of Meat Technology		
ECTS	6.0	*ECTS (forms)*	6.0
Form of course credit	examination	*Language*	english
Electives	9	*Elective group*	

Form of instruction	*Cod*	*Semester*	*Hours*	*ECTS*	*Weight*	*Credit*
laboratory course	L	6	30	3.0	0.50	credits
lecture	W	6	30	3.0	0.50	examination

Leading teacher	Lisiecki Sławomir (Slawomir.Lisiecki@zut.edu.pl)
Other teachers	Panicz Remigiusz (rpanicz@zut.edu.pl), Sobczak Małgorzata (Malgorzata.Sobczak@zut.edu.pl)

Prerequisites	
W-1	The basic knowledge of seafood raw materials characterisation
W-2	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

Module/course unit objectives	
C-1	Knowledge and skills related to preservation and utilisation of seafood by-products

Course content divided into various forms of instruction		*Number of hours*
T-L-1	Introduction, occupational health and safety in the laboratory.	1
T-L-2	Selected methods of preservation and utilisation of seafood by-products	27
T-L-3	Passing the practical part of the course	2
T-W-1	Aim of subject. Course syllabus	1
T-W-2	Classification and characterisation of methods of preservation and utilitisation of seafood by-products	27
T-W-3	Exam	2

Student workload - forms of activity		*Number of hours*
A-L-1	Practise participation	30
A-L-2	Preparation for passing the practise	30
A-L-3	Preparation of lab reports	28
A-L-4	Passing the practical part of the course	2
A-W-1	Lecture participation	30
A-W-2	Self study	30
A-W-3	Preparation for the exam	28
A-W-4	Exam	2

Teaching methods / tools	
M-1	Lecture
M-2	Practise, work in groups, lab reports.

Evaluation methods (F - progressive, P - final)		
S-1	P	Exam
S-2	P	Test
S-3	F	Assessment of lab reports and student activity

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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
Knowledge							
AQF_1A_C25b_W01 Student has knowledge of classification and characterization of methods of preservation and utilitisation 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	M-1	S-1
Skills							
AQF_1A_C25b_U01 Student is able to plan and conduct seafood by-products preservation and utilisation 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-3	M-2	S-2 S-3
Social competences							
AQF_1A_C25b_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-L-3 T-W-1 T-W-2 T-W-3	M-1 M-2	S-3

Outcomes	Grade	Evaluation criterion
Knowledge		
AQF_1A_C25b_W01	*2,0*	
	3,0	Student has basic knowledge of classification and characterisation of methods of preservation and utilitization 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_C25b_U01	*2,0*	
	3,0	Student plans and conducts seafood by-products preservation and utilisation 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_C25b_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