

DESCRIPTION OF A STUDY COURSE – SYLLABUS

Title of a course	Processing and Preservation of Plant Origin Products				
Head of course	PhD Urška Kosić, Senior Lecturer PhD Mihela Dujmović				
Study programme	Professional undergraduate study Sustainable Agritourism				
Status of a course	Obligatory				
Year of study	2.	Semester	IV	ECTS credits	5
Teaching plan (L + E + S+ Pr)	2+0+2+1				
Goals of a course					
<p>The aim of the course is to provide students with knowledge about processing processes and methods of preserving food of plant origin through learning about the basic processes in the food industry with the presentation of new technologies in the processing of food of plant origin.</p> <p>Generally speaking, the more important goals of the course are: To enable the student to recognize and define the basic processes of processing and preserving plant foods and the possibilities of their application in agritourism; Distinguish between the advantages and disadvantages of a particular processing process, on the basis of which it is necessary to make a decision on the optimal technological process for the processing of certain raw materials of plant origin; Point out the importance of applying the principles, norms and legal provisions in the field of insurance and determining the quality and health of food and products of plant origin during processing and distribution; Identify the risks that lead to the deterioration of food of plant origin and be able to apply methods to prevent them; Reflect and critically evaluate the information obtained and draw appropriate conclusions.</p>					
Conditions for enrolling course					
No conditions					
Learning outcomes on a level of a study programme which includes course					
<p>Outcome 4: Recommend the manner of processing, sorting and storage of plant and animal products stock and distribution of goods.</p> <p>Outcome 5: Select the methods of processing and preserving raw materials of plant and animal origin, depending on the quality characteristics of the raw material and the application of microorganisms.</p> <p>Outcome 7: Recommend environmentally friendly methods of hygiene, maintenance and waste management in agriculture, tourism and catering.</p>					
Expected learning outcomes on a level of a course					
<ol style="list-style-type: none">1. Interpret positive properties, characteristics and specificities of certain types of foodstuffs of plant origin, establish criteria for evaluating the quality of raw materials, and describe any undesirable characteristics of products of plant origin,2. Evaluate the technological processes of processing raw materials of plant origin, and explain the changes that occur during a particular processing process,3. Interpret the most common causes and consequences of spoilage of raw materials and final products of plant origin, describe manners to prevent spoilage,4. Select appropriate methods for the preservation of products of plant origin, and measures for conserving the product,5. Apply the principles of the HACCP system in the processing of products of plant origin.					
Content of a course					
<p>General characteristics and methods of preservation. Technological characteristics of plant products as raw material for processing and preservation. Managing plant products during and after harvesting. Preservation technology of plant products: heat sterilization preservation, cool preservation, preservation using freezing, preserving using concentration, dry conservation (dehydration), a biological way of preservation, preservation using additives, preserving using ionized radiation, combined and other methods of preservation. Auxiliary raw material, additives and auxiliary means for preserving plant products. Machines and equipment for preservation and maintenance of plant products. Packaging and packing preserved plant products. Preserving plant products</p>					

in the household.

Teaching modes	<input checked="" type="checkbox"/> lectures	<input checked="" type="checkbox"/> individual assignments
	<input type="checkbox"/> auditory exercises	<input type="checkbox"/> multimedia and network
	<input checked="" type="checkbox"/> seminars and workshops	<input type="checkbox"/> laboratory
	<input type="checkbox"/> distance learning	<input type="checkbox"/> supervisor's work
	<input type="checkbox"/> field classes	<input type="checkbox"/> other _____

Comments

Students' obligations

Grading, evaluation and monitoring of students' work continuously during lectures and exams

Grading is based upon evaluation of course's learning outcomes' adoption. Grading is performed continuously during lectures and/or during exam, in compliance with the provisions of Regulation on the assessment of students.

Continuous check-up:

Outcomes	Pre-exam I	Assignments	Seminar work	Test	Threshold	Max
Outcome 1	15%				7.5	15
Outcome 2	15%				7.5	15
Outcome 3			20%		10	20
Outcome 4		20%			10	20
Outcome 5				30%	15	30
Percentage of ECTS	1.5	1	1	1.5	-	-
Total	30%	20%	20%	30%	50 %	100 %

A student has passed the exam if he has acquired a percentage of credits for each learning outcome higher or equal to defined threshold.

Exam term:

Outcomes	Written exam	Oral exam	Max
Outcome 1	15%	-	15%
Outcome 2	15%	-	15%
Outcome 3	20%	-	20%
Outcome 4	20%	-	20%
Outcome 5	-	30%	30%
Percentage of ECTS	3.5	1.5	-
Total	70%	30%	100 %

A student has passed the exam if he has acquired a percentage of credits for each learning outcome higher or equal to defined threshold.

Grading:

A student has passed the exam if he has acquired at least 50% of anticipated credits of a specific learning outcome.

If a student has passed learning outcomes of all courses, the accomplished credits (percentages) of all passed learning outcomes are being added, while the final grade is defined upon following table:

Range of credits (percentages)	Numerical grade	ECTS grade
90,00 – 100,00	Excellent (5)	A
75,00 – 89,99	Very good (4)	B
60,00 – 74,99	Good (3)	C
50,00 – 59,99	Sufficient (2)	D

	0,00 – 49,99	Insufficient (1)	F
Obligatory literature			
<ol style="list-style-type: none"> 1. Koprivnjak, O.: Kvaliteta, sigurnost i konzerviranje hrane, Udžbenik Sveučilišta u Rijeci, Rijeka, 2013. Dostupno na: https://bib.irb.hr/datoteka/746006.kvaliteta_sigurnost_i_konzerviranje_hrane.pdf 2. Lovrić, T., Piližota, V.: Konzerviranje i prerada voća i povrća, Nakladni zavod Globus, Zagreb, 1994. 3. Turčić, V.: HACCP i higijena namirnica. Biblioteka higijena i praksa, Zagreb, 2000. 			
Additional literature			
<ol style="list-style-type: none"> 1. Zakon o hrani, Narodne novine Republike Hrvatske 81, 2013. 2. Lovrić, T.: Procesi u prehrambenoj industriji s osnovama prehrambenog inženjerstva, Hindus, Zagreb, 2003. 3. Herceg, Z.; Režek Jambrak, A.; Rimac Brnčić, S.; Krešić, G.: Preocesi konzerviranja hrane, novi postupci, Golden marketing-Tehnička knjiga, Zagreb, 2009. 4. Mujić, I.; Alibabić V.: Tehnološki procesi konzerviranja hrane, Grafičar, Bihać, 2005. 			

