

COURSE SYLLABUS

General information

Course title:	TECHNOLOGY OF PRODUCTION COFFEE AND COFFEE SUBSTITUTES
ISVU course code:	38339
Course instructor:	
Course assistant:	
Study programme and specialization in which the course is taught:	Professional undergraduate study of food technology
ECTS credits:	4.0
Semester of the course execution:	III.
Exam prerequisites:	-
Course objectives:	The aim of the course is to acquaint students with the basics of the technology of production of coffee and coffee substitutes, with a special emphasis on the economic aspects of production and distribution of products by applying new technologies and opening new markets.

Course structure

Teaching mode	Number of contact hours per semester:	Student's requirements per teaching mode
Lectures:	30	attendance at lectures - 80%
Exercises (auditory, linguistics):		
Exercises (laboratory, practical):	22	attendance at exercises-100%
Field work:	8	attendance at field lectures - 100%
Other:		
TOTAL:	60	

Monitoring of students' work and knowledge evaluation during the course

ουτςοΜΙ	ES	Oral exami- nation 1	Oral exami- nation 2	Total	Pass	Time frame for the recogniti on of the outcome
Outcome 1	Define the term quality of raw and roasted coffee, and check the net mass.	10%		10%	5%	Two academic years
Outcome 2	Explain the physical and chemical properties of raw coffee and the energy and nutritional value of coffee.	10%		10%	5%	Two academic years
Outcome 3	Choose the coffee processing technology, recognize the devices and choose the parameters necessary for technological operations in the processing	20%		20%	10%	Two academic years



Outcome 4	Explain the method of production and storage of instant coffee products.		20%	20%	10%	Two academic years
Outcome 5	Define the term coffee substitutes and choose the basic raw materials for their production.		20%	20%	10%	Two academic years
Outcome 6	Distinguish the technology of coffee substitutes from the production of coffee products and compare the physiological properties of individual products.		20%	20%	10%	Two academic years
Total % gr	ade points	40	60	100	40	
Share in E	CTS	1,6	2,4	4		

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Knowledge evaluation on exams

Exam pre	requisites					
OUTCOMES			Written exam	Oral exam	Total	Pass
Outcome 1	Define the term quality of raw and roasted coffee, and check the net mass.		10%		10%	5%
Outcome 2	Explain the physical and chemical properties of raw coffee and the energy and nutritional value of coffee.		10%		10%	5%
Outcome 3	Choose the technolo processing, recogniz and choose the para necessary for techno operations in the pr	gy for coffee te the devices meters blogical ocessing.	10%	10%	20%	10%
Outcome 4	Explain the method and storage of insta products.	of production nt coffee	10%	10%	20%	10%
Outcome 5	Define the term coff the basic raw mater production.	ee and choose ials for their	10%	10%	20%	10%
Outcome 6	Distinguish the tech substitutes from the coffee products and physiological proper individual products.	nology of coffee production of compare the rties of	10%	10%	20%	10%
Total % of	grade points		60	40	100	50
Share in E	CTS		2,4	1,6	4	

Review of units per week with associated learning outcomes

Week	Lecture course content and learning	Outco	Exercises	course	content	and	Outco
	outcomes:	me	learning ou	atcomes:			me



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1.	History of coffee and coffee shops. Production and consumption of coffee in the world.	11	Legal regulations in the field of coffee products and product declarations.	11
2.	Raw coffee and characteristics of individual types of coffee.	11	Determining the net mass of packages.	11
3.	Production of raw coffee.	12	Raw coffee: determination of quality and properties. Frying and drink tasting.	12
4.	Quality and properties of raw coffee. Physical properties and chemical composition of raw coffee	12	Roasted coffee: determination of quality and properties. Coffee for households: quality evaluation, preparation and sensory evaluation of the beverage.	13
5.	Roasted coffee, frying and roasters.	13	Espresso coffee: preparation and sensory evaluation of the beverage.	14
6.	Ground coffee, grinding, mills.	13	Filter coffee: preparation and sensory evaluation of the beverage.	14
7.	Decaffeinated coffee, decaffeination technique.	13	Instant coffee: quality and sensory evaluation of the beverage.	14
8.	Instant products: types and production using modern drying techniques (eg spray drying)	14	Determination of the energy and nutritional value of cappuccino-type products.	14
9.	Physical properties and chemical composition of roasted coffee and coffee products.	14	Cappuccino-type products: beverage preparation and assessment of sensory properties.	14
10.	Physical properties and chemical composition of roasted coffee and coffee products II.	14	Legal regulations in the field of coffee.	15
11.	Storage of roasted coffee and coffee products, packaging and packaging.	4	Coffees: determining the quality and tasting of the beverage.	16
12.	Cappuccino-type products, 3 in 1, 2 in 1: production and properties.	14	Production of roasted and ground coffee in industrial conditions - field teaching.	13
13.	Cultivation and technology of coffee substitutes using modern drying techniques (e.g. spray drying)	15	Production of instant coffee in industrial conditions – field teaching	14
14.	Types of coffees and basic raw materials for the production of mixed coffees.	15	Production of cappuccino, 3 in 1 and 2 in 1 products in industrial conditions – field teaching	14
15.	Physiological and chemical properties of coffee substitutes	16	Production of coffee substitutes in industrial conditions - field teaching	15

References (compulsory / additional)

compulsory:

- 1. Šimunac, D. Knjiga o kavi, Grafem, Zagreb, 2004.
- 2. Clarke, R. J. Coffee. Volume 2: Technology, ISBN 13: 9789401080286, University of Reading, UK Springer, 2011.
- 3. Freeman, J. et, al. The Blue Bottle Craft of Coffee: Growing, Roasting, and Drinking, with Recipes Ten Speed Press, London, 2012.

Additional:

1. Maxweell Colonna-Dashwood, The Coffee dictionary. ISBN 978-1-78472-301-9. Beazley Mitchell. London, 2017.



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- 2. Goldoni, L. Tehnologija konditorskih proizvoda I dio Kakao-proizvodi i proizvodi slični čokoladi, Kugler, Zagreb, 2004.
- 3. Vantal, A. Book of Coffee, Octopus Publishing Group Ltd., London, 2004.
- 4. Clarke, R. & Vitzthum, O. G. Coffee: Recent Developments: Recent Advances (World Agriculture), Blackwell science, Oxford, 2001.