



No. _____ of _____

USAMV form 0704010214

SUBJECT OUTLINE

1. Information on the programme

1.1. Higher education institution	University of Agricultural Sciences and Veterinary Medicine of Cluj-Napoca
1.2. Faculty	Faculty of Food Science and Technology
1.3. Department	Food Engineering
1.4. Field of study	Food Engineering
1.5. Education level	Post graduate
1.6. Specialization/ Study programme	Food Quality Management
1.7. Form of education	Full time

2. Information on the discipline

2.1. Name of the discipline	Product Properties and Consumer Needs							
2.2. Course coordinator	Vlad Mureșan, PhD, habil., Professor							
2.3. Seminar/ laboratory/ project coordinator	Vlad Mureșan, PhD, habil., Professor							
2.4. Year of study	I	2.5. Semester	II	2.6. Type of evaluation	continuous	2.7. Discipline status	Content ²	DS
							Compulsoriness ³	DI

3. Total estimated time (teaching hours per semester)

3.1. Hours per week – full time programme	3	out of which: 3.2. lecture	2	3.3. seminar/ laboratory/ project	1
3.4. Total number of hours in the curriculum	42	Out of which: 3.5. lecture	28	3.6. seminar/laboratory	14
Distribution of the time allotted					hours
3.4.1. Study based on book, textbook, bibliography and notes					10
3.4.2. Additional documentation in the library, specialized electronic platforms and field					33
3.4.3. Preparing seminars/ laboratories/ projects, subjects, reports, portfolios and essays					30
3.4.4. Tutorials					5
3.4.5. Examinations					5
3.4.6. Other activities					
3.7. Total hours of individual study	83				
3.8. Total hours per semester	125				
3.9. Number of credits ⁴	5				

4. Prerequisites (is applicable)

4.1. curriculum-related	Food science and engineering principles, Food industry chain basics
4.2. skills-related	Certificate of linguistic competence (English) Identification, description and appropriate use of specific notions of food science and technology

5. Conditions (if applicable)



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5.1. for the lecture	<p>Teaching manuals: Edwin Zondervan, Cristhian Almeida-Rivera, Kyle Vincent Camarda (2020). Product-Driven Process Design: From Molecule to Enterprise. Walter de Gruyter</p> <p>Lecture notes:-</p> <p>Course presentation in pptx format: course holder: prof. PhD. Vlad Muresan</p> <p>Logistic support: video projector, interactive whiteboard and PowerPoint presentations.</p> <p>Participation in a minimum of 50% of courses is a condition for participation in the exam.</p> <p>The course is interactive, students can ask questions regarding the content of lecture. Academic discipline requires compliance with the start and end of the course. We do not allow any other activities during the lecture, mobile phones will be turned off.</p>
5.2. for the seminar/ laboratory/ project	<p>1. Teaching manuals: Edwin Zondervan, Cristhian Almeida-Rivera, Kyle Vincent Camarda (2020). Product-Driven Process Design: From Molecule to Enterprise. Walter de Gruyter</p> <p>Laboratory/seminar notes:-</p> <p>Place of laboratory: laboratory room 20, 5/ place of private partner sector</p> <p>Laboratory equipment: specific glassware, sink, drying oven, balance,</p> <p>Specialized Software used: Power point, Excel,</p> <p>Specific laboratory reagents/supplies :</p> <p>Participation in 100% laboratory/seminar work is a condition for the exam participation</p> <p>During practical works, each student will develop an individual activity with laboratory materials (made available in the book that describes the laboratory work). Academic discipline is imposed throughout the course of practical works.</p>

6. Specific competences acquired

Professional competences	<p>C1 – conduct scientific research</p> <p>Engages in the conception or creation of new knowledge by formulating research questions, by researching, improving, or developing concepts, theories, models, techniques, tools, software, or operational methods, and by using scientific methods and techniques.</p> <p>C6- – evaluate the quality standards</p> <p>Evaluates in detail the production, quality or packaging of goods to ensure compliance with the manufacturer's quality standards.</p>
Transversal competences	

7. Course objectives (based on the list of competences acquired)

7.1. Overall course objective	<p>Specific subject discipline which aims to familiarise students with the multidisciplinary field of product properties and consumer needs specific to food industry</p> <p>Explanation and interpretation of ideas, projects, processes, and theoretical and practical content of the disciplines.</p> <p>Together with the other disciplines in the curriculum, it ensures the implementation and formation of complex concepts on Product properties and consumers need.</p>
7.2. Specific objectives	<p>Knowledge of food products properties and reasons for new product development in relation with consumers needs</p> <p>Explain and exemplify the principles of consumer behaviour and research</p>



Learning the conceptual framework and the importance of the need for continuous new food product development
 Mastering the Quality Function Deployment (QFD), laddering techniques, in-depth interviewing, focus groups, surveys, compositional perceptual mapping
 Fostering active participation of master students.
 Obtaining learning outcomes that aim in the formation of skills and abilities based on the correlation of the information received with those acquired in other disciplines such as Food science and engineering principles, Food industry chain basics.

8. Content

8.1. LECTURE Number of hours – 28	Teaching methods	Notes
1. Food products properties. Reasons for new product development. Life Cycle Assessment (LCA): what is it and why is it relevant in food product design?	Lectures, heuristic conversation, Explanation, debate	2 lectures
2. Principles of consumer behaviour and research	Lectures, heuristic conversation, Explanation, debate	2 lectures
3. The need for continuous new food product development	Lectures, heuristic conversation, Explanation, debate	1 lecture
4. Stages of the new product development process. Relevant concepts and methods	Lectures, heuristic conversation, Explanation, debate	2 lectures
5. Quality Function Deployment (QFD) and laddering techniques in the early stages of new product development - the “voice of the customer”	Lectures, heuristic conversation, Explanation, debate	3 lectures
6. In-depth interviewing, focus groups, surveys, compositional perceptual mapping	Lectures, heuristic conversation, Explanation, debate	2 lectures
7. New product concepts.	Lectures, heuristic conversation, Explanation, debate	1 lecture
8. Consumer-oriented food products design.	Lectures, heuristic conversation, Explanation, debate	1 lecture

8.2. PRACTICAL WORK Number of hours – 14	Teaching methods	Notes
1. Consumer profiles.	Case study, simulation of situations, methods of group work	1 lab work
2. Formulation of design problems and identification of consumer wants	Case study, simulation of situations, methods of group work	1 lab work
3. Product function and generation of ideas	Case study, simulation of situations, methods of group work	1 lab work
4. Creativity templates. Subtraction. Multiplication. Division. Task unification. Attribute dependency change	Case study, simulation of situations, methods of group work	1 lab work



5. Case study: Food trends – health, sustainability, authenticity	Case study, simulation of situations, methods of group work	2 lab works
6. Recent methodologies for combining sensory and extrinsic product properties in consumer studies	Case study, simulation of situations, methods of group work	1 lab work

Compulsory bibliography:

1. Edwin Zondervan, Cristhian Almeida-Rivera, Kyle Vincent Camarda (2020). *Product-Driven Process Design: From Molecule to Enterprise*. Walter de Gruyter
2. Anita R. Linnemann, Catharina G. P. H. Schroen, Martinus A. J. S. Van Boekel (2011) *Food Product Design: An Integrated Approach*. Wageningen Academic Publishers; Revised Edition

Optional bibliography:

1. Grzegorz Maciejewski, Sylwia Mokrysz and Lukasz Wróblewski (2020). *Consumers towards marketing strategies of coffee producers*. Wageningen Academic Publishers. eISBN: 978-90-8686-905-3 | ISBN: 978-90-8686-352-5 <https://doi.org/10.3920/978-90-8686-905-3>
2. Klaus G. Grunert (2017). *Consumer trends and new product opportunities in the food sector*. Wageningen Academic Publishers eISBN: 978-90-8686-852-0 | ISBN: 978-90-8686-307-5 <https://doi.org/10.3920/978-90-8686-852-0>
3. Leanne W.S. Loijens (2017). *Augmented reality for food marketers and consumers*. Wageningen Academic Publishers. eISBN: 978-90-8686-842-1 | ISBN: 978-90-8686-299-3 <https://doi.org/10.3920/978-90-8686-842-1>
4. Daniele Asioli, Paula Varela, Margrethe Hersleth, Valerie Lengard Almlı, Nina Veflen Olsen, Tormod Næs,(2017). *A discussion of recent methodologies for combining sensory and extrinsic product properties in consumer studies, Food Quality and Preference, Volume 56, Part B,Pages 266-273, ISSN 0950-3293, <https://doi.org/10.1016/j.foodqual.2016.03.015>*.

9. Corroborating the course content with the expectations of the epistemic community representatives, of the professional associations and of the relevant stakeholders in the corresponding field

The course has a similar content compared with other European universities courses and takes into account the level of preparation of students.

The course is important / fundamental for the development of working skills as future specialists in the graduated field
The content of the discipline is in line with the demands of the specific national professional associations.

In order to identify ways of modernization and continuous improvement of the teaching and content of the courses, with the most current themes and practical problems, the teachers participate at the annual meeting of the Association of Food Industry Specialists in Romania, where they meet with the food industry specialists from the private environment and the teaching staff from other higher education institutions in the country. Meetings aim at identifying the needs and expectations of employers in the field and coordinating with other similar programs within other higher education institutions

10. Assessment

Type of activity	10.1. Assessment criteria	10.2. Assessment methods	10.3. Percentage of the final grade
10.4. Lecture	Assessing specific aspects of product properties and consumer needs	Presenting and submitting an individual project	75%
10.5. Seminar/Laboratory	Developing a case study based on predetermined topics	Submitting an individual case study	25%

10.6. Minimum performance standards

Knowledge of the food products properties and reasons for new product development in relation with consumer's needs, as well as realizing an individual project based on the choice of Quality Function Deployment, laddering techniques, in-depth interviewing, focus groups, surveys, compositional perceptual mapping. The assessment of the knowledge and skills acquired by students is carried out in accordance with Article 144 (3) of the National Education Law, by full notes from 10 to 1, note 5 certifying the achievement of the minimum competences related to the discipline and passing the examination.



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Knowledge 50% of the information contained in the course.

Knowledge 50% of the information provided at practical work / seminar.

100% attendance at practical work / seminars is mandatory.

Attendance at 50% courses is a condition for entering the exam.




Final grade = 75%P+25%CS

¹ Level of study- to be chosen one of the following - Bachelor/Post graduate/Doctoral

² Course regime (content) – for bachelor level it will be chosen one of the following - **DF** (fundamental subject), **DD** (subject in the domain), **DS** (specific subject), **DC** (complementary subject).

³ Course regime (compulsory level) - to be chosen one of the following - **DI** (compulsory subject), **DO** (optional subject), **DFac** (facultative subject)

⁴ One ECTS is equivalent with 25 de hours of study (didactical and individual study).

Filled in on 06.09.2024	Course coordinator Vlad Mureșan, PhD, habil., Professor 	Laboratory work/seminar coordinator Vlad Mureșan, PhD, habil., Professor 
	Subject coordinator Vlad Mureșan, PhD, habil., Professor 	
Approved by the Department on 12.09.2024	Head of the Department Simona Man, PhD Assoc. Professor	
Approved by the Faculty Council on 27.09.2024	Dean Elena Mudura, PhD Professor	