UNIVERSITATEA DE ŞTIINŢE AGRICOLE ŞI MEDICINĂ VETERINARĂ CLUJ-NAPOCA
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No._____of _____ **USAMV form 0704010213**

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 (English)
1.7. Form of education	Full time

2. Information on the discipline

2.1. Name of the discipline	**Consumer, Technology and Innovation**							
2.2. Course coordinator				Vlad Mureşan, PhD, habil., Associate Professor				
2.3. Seminar/ laboratory/ project coordinator				Vlad Mureşan, PhD, habil., Associate 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	Knowledge of: 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. Con

5.1. for the lecture	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.
5.2. for the seminar/ laboratory/ project	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.

6. Specific competences acquired

Professional competences	C 6.1 Understand the principles for designing new products in the food industry C 6.4 Use of modern methods to evaluate the performance / characteristics of the product / processes
Transversal competences	CT1 Realization of complex, interdisciplinary, individual projects

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

7.1. Overall course objective	Is to know, use and understand the multidisciplinary field of consumer, technology and innovation specific to food industry
7.2. Specific objectives	Knowledge of trends and challenges for the future of food products and food industry in relation with consumers perception Explain and exemplify different food perception models Learning the conceptual framework and the importance of innovations and inventions in food and beverages Description and classification of intellectual property means Mastering the Intellectual property and Innovation databases searching tools; notions; Fostering active participation of master students

8. Content

8.1.LECTURE **Number of hours – 28**	Teaching methods	Notes
Consumer, Technology Innovation WORLD CONTEXT. Megatrends affecting the global agrifood sector. Global challenges for the future of food and agricultural systems. Potential scenarios and policy options	Lectures, heuristic conversation, Explanation, debate	1 lecture
Consumer, Technology & Innovation in Food Industry – European Context	Lectures, heuristic conversation, Explanation, debate	1 lecture
Understanding the consumer. Influencing the consumer. Food Perception Models	Lectures, heuristic conversation, Explanation, debate	2 lectures
Intellectual property – Types, Classification, Specific terms.	Lectures, heuristic conversation, Explanation, debate	1 lecture
Intellectual property –Searching tools	Lectures, heuristic conversation, Explanation, debate	1 lecture
Innovation and creativity- the four stages of value creation. Human resources and creativity in the food industry	Lectures, heuristic conversation, Explanation, debate	2 lectures
Innovations and inventions in food and beverages. An historical overview. Description and discussion of different exampls	Lectures, heuristic conversation, Explanation, debate	2 lectures
Innovation understood. Invention vs. Innovation -- What is the Difference?	Lectures, heuristic conversation, Explanation, debate	2 Lectures
The Innovation Environment. Innovation Tools. Precursor rituals for innovation. The IdeaStore. Innovation databases searching tools	Lectures, heuristic conversation, Explanation, debate	2 Lectures

8.2. PRACTICAL WORK **Number of hours – 14**	Teaching methods	Notes

Variables influencing food perception reviewed for consumer-oriented product development. Food Perception Models – case study	Case study, simulation of situations, methods of group work	2 lab works
Intellectual property – simulation of situations. Analyzing IPDENTICAL: a production of the European Union Intellectual Property Office (EUIPO)	Case study, simulation of situations, methods of group work	2 lab works
Case studies– Food & products technology and innovation	Case study, simulation of situations, methods of group work	3 lab works

Compulsory bibliography:

1. *Traitler, Helmut, Birgit Coleman, Karen Hofmann (2015). Food Industry Design, Technology and Innovation. John Wiley & Sons, Inc. and the Institute of Food Technologists*
2. *Siet Sijtsema , Anita Linnemann , Ton van Gaasbeek , Hans Dagevos & Wim Jongen (2002) Variables Influencing Food Perception Reviewed for Consumer-Oriented Product Development, Critical Reviews in Food Science and Nutrition, 42:6, 565-581, DOI: 10.1080/20024091054256*
3. **** (2016) FOOD FUTURES PANEL. Understanding consumer priorities for food innovation A GFS Food Futures panel activity*

Optional bibliography:

1. *Barbara Bigliardi, Charis Galanakis (2020). Innovation management and sustainability in the food industry: concepts and models. In The Interaction of Food Industry and Environment. Elsevier Inc. https://doi.org/10.1016/B978-0-12-816449-5.00010-2*
2. *Baregheh, A., Rowley, J., Sambrook, S. and Davies, D. (2012), "Food sector SMEs and innovation types", British Food Journal, Vol. 114 No. 11, pp. 1640-1653. https://doi.org/10.1108/00070701211273126*
3. **** Implementation action plan (2018). Food for life. www.etp.fooddrinkeurope.eu*

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 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 consumer, technology and innovation in the food industry	Presenting and submitting a food innovation concept individual project	75%
10.5. Seminar/Laboratory	Realizing a food perception model case study	Submitting an individual case study	25%
10.6. Minimum performance standards			
Explaining and exemplifying min. 1 food perception model and mastering the Intellectual property and Innovation databases searching tools, as well as realizing an individual Food innovation project. 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.			

[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 25-30 de hours of study (didactical and individual study).

Filled in on
10.09.2021

Course coordinator
Vlad Mureşan, PhD, habil., Associate Professor

Laboratory work/seminar coordinator
Vlad Mureşan, PhD, habil., Associate Professor

Subject coordinator
Vlad Mureşan, PhD, habil., Associate Professor

Approved by the Department on
22.09.2021

Head of the Department
Sevastita Muste, PhD Professor

Approved by the Faculty Council on
28.09.2021

Dean
Elena Mudura, PhD Professor