



Nr. _____ din _____

Formular USAMV–CN–0708020103

SUBJECT OUTLINE

1. Information on the program

1.1. Higher education institution	University of Agricultural Sciences and Veterinary Medicine of Cluj-Napoca
1.2. Faculty	Food Science and Technology
1.3. Department	Food Science
1.4. Field of study	Food Engineering
1.5. Cycle of study ¹	Second cycle, Master studies
1.6. Specialization/ Study program	Gastronomy, Nutrition and Dietetics
1.7. Form of education	Full time

2. Date despre disciplină

2.1. Name of the discipline	ART OF TASTING AND SENSORY ANALYSIS OF FOODS							
2.2. Course coordinator	Assoc. Prof. eng. Laura Stan, PhD							
2.3. Seminar/ laboratory/ project coordinator	Assoc. Prof. eng. Laura Stan, PhD							
2.4. Year of study	II	2.5. Semester	III	2.6. Type of evaluation	Continuous	2.7. Discipline status	Content ²	BD
							Compulsoriness ³	CS

3. Total estimated time (teaching hours per semester)

3.1. Hours per week – full time program	3	out of which: 3.2. Lecture	1	3.3. Seminar/ Laboratory/ Project	2
3.4. Total number of hours in the curriculum	42	Out of which: 3.5. Lecture	14	3.6. Seminar/Laboratory	28
Distribution of the time allotted					hours
3.4.1. Study based on book, textbook, bibliography and notes					23
3.4.2. Additional documentation in the library, specialized electronic platforms and field					20
3.4.3. Preparing seminars/ laboratories/ projects, subjects, reports, portfolios and essays					20
3.4.4. Tutorials					10
3.4.5. Examinations					10
3.4.6. Other activities					0
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 Chemistry, Biochemistry, Organic Chemistry, Food Microbiology, Statistics
4.2. skills-related	The student must have the ability to use EXCEL and know the basics of statistics.

5. Conditions (if applicable)

5.1. for the lecture	Amphitheater, video-projector, blackboard, computers.
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	Students will attend the lectures or practical labs with their mobile phones closed. Personal phone calls and leaving the lecture room or lab in order to take a personal call will not be permitted.
5.2. for the seminar/ laboratory/ project	Laboratory for sensorial analysis of foods equipped with individual sensory boxes. The deadline of handing in the individual or group projects will be established by the course coordinator in agreement with the students. Postponing of the deadlines will not be accepted, except for well argued situations. Any delays in handing in the projects will be graded accordingly.

6. Specific competences acquired

Professional competences	C4.1. Identification and use of basic principles applied in art of tasting and sensorial analysis of foods for the design of new healthy foods C4.2. Application of knowledge from art of tasting and sensory analysis in order to design new food products according to the specific requirements of the social media C4.3. Application of the sensory analysis specific methodology for consultancy in new product's development C4.4. Application of modern methods for sensory evaluation of products C4.5. Evaluation of research results based on modern techniques of statistical analysis of data
Transversal competences	CT1. Realization of a complex interdisciplinary and individual project CT2. Realization of a complex, interdisciplinary and team project CT3. Realization of a scientific article complex and interdisciplinary

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

7.1. Overall course objective	To learn the general principles of foods pairing and sensory analysis
7.2. Specific objectives	To understand the differences between qualitative and quantitative methods. To identify the factors that influence the sensorial quality of foods. To identify the factors that influence the sensorial ability of panelists. To perform a statistically interpretation of the results of a sensory test.

8. Content

8.1. LECTURE Number of hours – 14	Teaching methods	Notes
1. Sensory analysis for quality control of foods	Interactive lecture	1 lecture (2h)
2. Modern methods in sensory analysis of foods		1 lecture (2h)
3. Principles of food pairing. Contrast and harmony.	Interactive lecture	1 lecture (2h)
4. Food pairing: harmonious visual associations. Food pairing: harmonious texture associations	Interactive lecture	1 lecture (2h)
5. Food pairing: taste, aroma and flavor	Interactive lecture	1 lecture (2h)
6. Food pairing in mediteranean gastronomy – case studies	Interactive lecture	1 lecture (2h)
7. Food pairing: wine and food – case studies	Interactive lecture	1 lecture (2h)

8.2. PRACTICAL WORK Number of hours – 28	Teaching methods	Notes
1. Preselection of panellists. Methods for selection and training of panellists.	Individual work, study case, demonstration, explanation	1 laboratory (2h)
2. Evaluation of sensory threshold for gustatory, olfactive, visual and tactile sensitivity.		1 laboratory (2h)
3. Descriptive test.		1 laboratory (2h)



4. Methods for food pairing		1 laboratory (2h)
5. The diagram of food and wine pairing. Data interpretation.		1 laboratory (2h)
6. The diagram of chocolate and fruits/seeds pairing. Data interpretation.		1 laboratory (2h)
7. The diagram of traditional foods pairing. Data interpretation.		1 laboratory (2h)
8. The diagram of food and non-alcoholic drinks pairing. Data interpretation.		1 laboratory (2h)
9. Case studies.		2 laboratories (4h)
10. Project – food pairing in development of new food products		3 laboratories (6h)
11. Evaluation of knowledge, competences and abilities, project presentation		1 laboratory (2h)
<p>Compulsory bibliography:</p> <ol style="list-style-type: none"> 1. Written notes from course and laboratories 2. BS 5098:1992, Glossary of terms relating to sensory analysis 3. BS ISO 13299:2003, Sensory analysis — Methodology — General guidance for establishing a sensory profile 4. Harrington, R. J., 2007, Food and wine pairing: A sensory experience. John Wiley & Sons. 5. Lawless, H. T., Heymann, H., 2010, Sensory evaluation of food: principles and practices. Springer Science and Business Media. 6. Lyon, D. H., Francombe, M. A., Hasdell, T. A., 2012, Guidelines for sensory analysis in food product development and quality control. Springer Science and Business Media. 7. Stan Laura, 2018, Analiza senzorială a produselor alimentare – manual pentru învățământul la distanță, Ed. Academic Press Cluj-Napoca, e- ISBN 978-973-744-673-2 8. Stone, H., Bleibaum, R., Thomas, H. A., 2012, Sensory evaluation practices. Academic press. 		
<p>Optional bibliography:</p> <ol style="list-style-type: none"> 1. Chen, J., Rosenthal, A. (Eds.), 2015, Modifying Food Texture: Volume 2: Sensory Analysis, Consumer Requirements and Preferences. Woodhead Publishing. 2. Gacula Jr, M. C., 2008, Design and analysis of sensory optimization. John Wiley and Sons. 3. Jackson S. Ronald, 2009, Wine tasting: a professional handbook, Elsevier 4. Klosse Peter, 2014, The essence of gastronomy – understanding flavor of foods and beverages, CRC Press 		

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

Teaching staff participate annually at the meeting organised by Romanian Food Specialists Association in order to update continuously the content of curricula with practical topics. The meetings are focused on identification of the needs of the industry and their expectations regarding the employees – our alumni.

10. Assessment

Type of activity	10.1. Assessment criteria	10.2. Assessment methods	10.3. Percentage of the final grade
10.4. Lecture	Evaluation of knowledge Evaluation of specific terminology Knowledge of sensory analysis principles and methods and their application correctly, coherently. Presence and active participation	Oral or written exam	25%



	Presentation of case study Critical thinking and synthesis capacity of the sensory analysis methods and their application for the design and development of new products and their quality control	Project or written report and powerpoint presentation	25%
10.5. Seminar/Laboratory	Evaluation of ability to apply correctly the principles and methods used in sensory analysis of foods -case studies Data interpretation Presence and active participation	Continuous and final evaluation	25%
	Presentation of case studies Critical thinking and synthesis capacity of the sensory analysis methods and their application for the design and development of new products and their quality control	Project or written report and powerpoint presentation	25%
10.6. Minimum performance standards			
Realization of individual projects regarding sensory evaluation and food pairings. Realization of team projects regarding sensory evaluation and food pairings. Passing mark is minimum 5 at all evaluation forms and projects – and this is a mandatory condition. Final mark is arithmetic mean of all evaluations and a value of minim 5 is mandatory for passing.			

¹ Cycle of studies- choose of the three options: Bachelor/Master/Ph.D.

² Discipline status (content)- for the undergraduate level, choose one of the options:- **FD** (fundamental discipline), **BD** (basic discipline), **CS** (specific disciplines-clinical sciences), **AP** (specific disciplines-animal production), **FH** (specific disciplines-food hygiene), **UO** (disciplines based on the university's options).

³ Discipline status (compulsoriness)- choose one of the options – **CD** (compulsory discipline) **OD** (optional discipline) **ED** (elective discipline).

⁴ One credit is equivalent to 25-30 hours of study (teaching activities and individual study).

Filled in on
10.09.2021

Course coordinator
Assoc. Prof. eng. Laura STAN, PhD

Laboratory work/seminar coordinator
Assoc. Prof. eng. Laura STAN, PhD

Approved by the
department on
22.09.2021

Head of the Department
Prof. Dr. Ramona SUHAROSCHI, PhD

Dean

Prof. Elena Mudura, PhD

Approved by the faculty Council
28.09.2021