UNIVERSITATEA DE ŞTIINŢE AGRICOLE ŞI MEDICINĂ VETERINARĂ CLUJ-NAPOCA
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No._____of _____ **USAMV form 0704010211**

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	Food Science and Technology
1.3. Department	Food Science
1.4. Field of study	Food Engineering
1.5. Education level	Master
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	Usage Oriented Product Design							
2.2. Course coordinator				Prof. PhD. Dan C. Vodnar				
2.3. Seminar/ laboratory/ project coordinator				Prof. PhD. Dan C. Vodnar				
2.4. Year of study	I	2.5. Semester	**I**	2.6. Type of evaluation	continuous	2.7. Discipline status	Content[2]	FD
							Compulsoriness [3]	CD

3. Total estimated time (teaching hours per semester)

4. Prerequisites (is applicable)

3.1. Hours per week – full time programme	2	out of which: 3.2. lecture	1	3.3. seminar/ laboratory/ project	1
3.4.Total number of hours in the curriculum	28	Out of which: 3.5.lecture	14	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					15
3.4.3. Preparing seminars/ laboratories/ projects, subjects, reports, portfolios and essays					15
3.4.4.Tutorials					2
3.4.5.Examinations					10
3.4.6. Other activities					10
3.7. Total hours of individual study	62				
3.8. Total hours per semester	90				
3.9. Number of credits[4]	3				

4.1. curriculum-related	Consumer Technology and Product Use
4.2. skills-related	The student must have knowledge of use and consumption as a system in which material and immaterial resources (input) lead to consumer services (output) and undesired side effects (side-put). In addition, the student must be familiar with the concepts of consumer technology, consumption strategies and quality of technical processes.

5. Conditions (if applicable)

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	C1: describe the design process of consumer goods, such as foods; C2: understand ergonomic theories and concepts and the methods to perform usability studies; C3: apply the above in the set-up of a usability study; C4: prepare, execute and report a usability study; C5: judge consumer products on their ergonomic quality, given certain groups of users; C6: formulate a program of wishes and demands for the redesign of a consumer product.
Transversal competenc	TC1: Realization of complex, interdisciplinary, individual projects; TC2: Realization of complex, interdisciplinary projects, with the coordination of a team; TC3: Carrying out a complex, interdisciplinary scientific paper.

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

7.1. Overall course objective	To acquire current knowledge in the field of usability of consumer food products.
7.2. Specific objectives	To understand the way insight can be gained into the wishes and needs of future users of the food products to be designed. To be able to design a program of wishes and needs. To understand the ergonomics of food products and workplaces, to learn about the interaction between user and food product. To understand both user and product characteristics.

8. Content

8.1.LECTURE **Number of hours – 14**	Teaching methods	Notes
Introduction in usage oriented product design. What is the concept of usage oriented product design in food industry? Usability of consumer food products	Lecture	1 lecture = 2 hours
Design process of consumer food products. The principles of designing products in the food industry. Analysis and identification of stages for product or process design in the food industry	Lecture	1 lecture = 2 hours
Formulation of design requirements. Insights in the wishes and needs of future users of the "to be designed" food products. A program of wishes and needs.	Lecture	2 lectures = 4 hours
Ergonomics of food products and workplaces. Ergonomics theories and concepts, methods to perform ergonomics research, ergonomics quality, group of users, interaction between user and food products.	Lecture	2 lectures = 4 hours
Integrated use of classical and modern technologies for food production. User and product characteristics. Modern methods for evaluating the performance/characteristics of the product/process	Lecture	1 lecture = 2 hours

8.2. PRACTICAL WORK **Number of hours – 14**	Theoretical presentation of practical works	1 lab work (2 hours /work)
Set up of a usability study: prepare, execute and report a usability study for a food product;	Study of usage oriented food product design	1 lab work
Ergonomic study of a food product given certain group of consumers;	Study of usage oriented food product design	2 lab work

Formulate a program of wishes and demands for the redesign of a consumer food product. Integrated use of classical and modern technologies for food product design and modern methods for evaluating its performance/characteristics	Study of food product design	2 lab work

Compulsory bibliography: Moskowitz, H. R., Porretta, S., & Silcher, M. (2008). Concept research in food product design and development. John Wiley & Sons.

Optional bibliography: Aramouni, F., & Deschenes, K. (2014). Methods for developing new food products: An Instructional Guide. DEStech Publications, Inc.
Van Kuijk, J., van Driel, L., & van Eijk, D. (2015). Usability in product development practice; an exploratory case study comparing four markets. Applied ergonomics, 47, 308-323.

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

In order to identify ways to modernize and continuously improve the teaching and content of the courses, with the most current topics and practical problems, teachers consult the international literature.

10. Assessment

Type of activity	10.1. Assessment criteria	10.2. Assessment methods	10.3. Percentage of the final grade
10.4. Lecture	Logical, correct and consistent application of the acquired notions	Written exam	50%
10.5. Seminar/Laboratory	Acquiring professional skills Ability to analyze and interpret results Report of the ergonomic study	Report/Project	50%
10.6. Minimum performance standards			
Mastery of scientific information transmitted through lectures and practical work at an acceptable level. Obtaining the pass mark for the ongoing checks is a condition of passability.			

[1] Education levels- 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).
[5 / *] Disciplines: AK- Advanced knowledge, CT- Complementary Training, S- Synthesis

Filled in on
09.09.2021

Course coordinator
Prof. PhD.. Dan C. Vodnar

Laboratory work/seminar coordinator
Prof. PhD. Dan C. Vodnar

Subject coordinator
Prof. PhD. Dan C. Vodnar

Approved by the
Department on 22.09.2021

Head of the Department
Prof. PhD.. Ramona Suharoschi

Approved by the Faculty
Council on
28.09.2021

Dean
Prof. PhD. Elena Mudura