



No \_\_\_\_\_ from \_\_\_\_\_

Form code USAMV–CN-0705010105

## COURSE DESCRIPTION

### 1. Information on the programme

|                                    |                                                                         |
|------------------------------------|-------------------------------------------------------------------------|
| 1.1. Higher Education Institution  | University of Agricultural Sciences and Veterinary-Medicine Cluj-Napoca |
| 1.2. Faculty                       | Food Science and Technology                                             |
| 1.3. Department                    | Food Engineering                                                        |
| 1.4. Study field                   | Food Engineering                                                        |
| 1.5. Level field <sup>1)</sup>     | Master                                                                  |
| 1.6. Specialization/ Study Program | System processing and food quality control                              |
| 1.7. Form of education             | IF                                                                      |

### 2. Information on the discipline

|                                                          |                                          |               |   |                         |          |                    |                                  |    |
|----------------------------------------------------------|------------------------------------------|---------------|---|-------------------------|----------|--------------------|----------------------------------|----|
| 2.1. Name of the course                                  | Sensorial Analysis Of Agro-Food Products |               |   |                         |          |                    |                                  |    |
| 2.2. Course leader                                       | Assoc. Prof. PhD. Crina Mureșan          |               |   |                         |          |                    |                                  |    |
| 2.3. Coordinator of seminary/laboratory activity/project | Assoc. Prof. PhD. Crina Mureșan          |               |   |                         |          |                    |                                  |    |
| 2.4. Year of study                                       | I                                        | 2.5. Semester | I | 2.6. Type of evaluation | Continue | 2.7. Course regime | Content <sup>2</sup>             | DD |
|                                                          |                                          |               |   |                         |          |                    | Level of compulsory <sup>3</sup> | DI |

### 3. Total estimated time (teaching hours per semester)

|                                                                                               |     |                        |    |                                    |       |
|-----------------------------------------------------------------------------------------------|-----|------------------------|----|------------------------------------|-------|
| 3.1. Number of hours/week – frequency form                                                    | 2   | of which : 3.2. course | 1  | 3.3. seminary/ laboratory/ project | 1     |
| 3.4. Total hours in the curricula                                                             | 28  | of which: 3.5.course   | 14 | 3.6.seminary/laboratory            | 14    |
| Distribution of time                                                                          |     |                        |    |                                    | Hours |
| 3.4.1.. Study based on handbook, notes, bibliography                                          |     |                        |    |                                    | 30    |
| 3.4.2. Extra documentation in the library, on specific electronic platforms and on field      |     |                        |    |                                    | 20    |
| 3.4.3. Preparation of seminars/ laboratories/ projects, themes, papers, portfolios and essays |     |                        |    |                                    | 30    |
| 3.4.4.Tutorial                                                                                |     |                        |    |                                    | 7     |
| 3.4.5. Examination                                                                            |     |                        |    |                                    | 10    |
| 3.4.6. Other activities                                                                       |     |                        |    |                                    |       |
| 3.7. Total hours of individual study                                                          | 97  |                        |    |                                    |       |
| 3.8. Total hours per semester                                                                 | 125 |                        |    |                                    |       |
| 3.9. Number of ECTS <sup>4</sup>                                                              | 5   |                        |    |                                    |       |

### 4. Prerequisites (if applicable)

|                     |                                                                                                            |
|---------------------|------------------------------------------------------------------------------------------------------------|
| 4.1. of curriculum  | Basics of chemistry and biochemistry as well food technology                                               |
| 4.2. of competences | The student must have the ability to use Excel Program and have basic knowledge in mathematical statistics |

### 5. Conditions (if applicable)

|                              |                                                                                                                                                                                                                  |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5.1. of course development   | Space and facilities:<br>Classroom equipped with: board, projector and computer<br>The course is interactive, the student can participate directly through questions and comments regarding the content exposure |
| 5.2. of seminary/laboratory/ | Laboratory for sensorial analysis of foods                                                                                                                                                                       |



|                     |                                                                                |
|---------------------|--------------------------------------------------------------------------------|
| project development | At the seminar, academic discipline required of the entire deployment duration |
|---------------------|--------------------------------------------------------------------------------|

## 6. Specific competences acquired

|                          |                                                                                                        |
|--------------------------|--------------------------------------------------------------------------------------------------------|
| Professional competences | CP 5. Implementation and monitoring of EU policies and strategies on food quality, safety and security |
| Transversal competences  | CT1. Realization of complex, interdisciplinary, individual projects                                    |

## 7. Subject objectives (as a result of the specific acquired competences)

|                                 |                                                                                                                                                                                                |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7.1. Subject general objectives | To learn the methods for panelists training, the perception of sensations, qualitative and quantitative methods as well as interpretation of results.                                          |
| 7.2. Specific objectives        | To understand the differences between qualitative and quantitative methods.<br>To interpret the results of a test<br>To identify the factors which influence the sensorial quality of a food . |

## 8. Contents

| 8.1.COURSE<br>Number of hours – 14<br>Stages and technical conditions for performing sensory examinations; Description of the main methods used for sensory analysis. Ways of interpreting the results.<br><br>Sensations and their role in sensory analysis. Interference of sensations.<br><br>Structural characteristics of food products. Molecular interactions. Factors influencing the structural characteristics of food.<br><br>The influence of technological factors (temperature, humidity, additives, etc.) on the structure of food products and their effect on sensory characteristics.<br><br>The role of sensory analysis in establishing consumer preferences. Factors influencing the degree of acceptance and consumer preferences. The objectives of the study of consumer preference; Development of a questionnaire. Type of questionnaires.<br><br>The main sensory characteristics of the products food and their mode of investigation. Case studies.<br><br>Instrumental analysis of sensory quality: instrumental analysis of color; Instrumental analysis of flavor components (GC-FID, GC-MS, GS-OD); instrumental analysis of texture. | Methods of teaching<br><br>Lectures, heuristic conversation, explanation | Observations<br><br>1 lecture<br><br>1 lecture<br><br>1 lecture<br><br>1 lecture<br><br>1 lecture<br><br>1 lecture |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                        |                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------------------------------------------------------------|
| <p><b>8.2. PRACTICAL WORK</b><br/> <b>Number of hours – 14</b></p> <p>1. Development of a questionnaire on the degree of acceptance and consumer preferences.</p> <p>2. Sensory analysis of food product of animal origin. Literature study-methods and results. Practical application.</p> <p>3. Sensory analysis of food product of vegetal origin. Literature study-methods and results. Practical application.</p> <p>Final examination of knowledge and abilities</p>                                                                                                                                                                                                                                             | <p>Individual work</p> | <p>2 seminars</p> <p>2 seminars</p> <p>2 seminars</p> <p>1 seminar</p> |
| <p><i>Compulsory Bibliography:</i></p> <ol style="list-style-type: none"> <li>1. Muresan Crina, 2021, Lecture notes</li> <li>2. BS ISO 13299:2003, Sensory analysis — Methodology — General guidance for establishing a sensory profile</li> <li>3. BS ISO 4121:2003, Sensory analysis — Guidelines for the use of quantitative response scales</li> <li>4. Lawless, H. T., Heymann, H., 2010, Sensory evaluation of food: principles and practices. Springer Science and Business Media</li> <li>5. Stone, H., Bleibaum, R., Thomas, H. A., 2012, Sensory evaluation practices. Academic press.</li> <li>6. Stone, H, Joel L. Sidel, 2004, Sensory Evaluation Practices (Third Edition), Ed. Elsevier Inc.</li> </ol> |                        |                                                                        |
| <p><i>Facultative Bibliography:</i></p> <ol style="list-style-type: none"> <li>1. Apostu Sorin, Naghiu Alexandru, 2008, Analiza senzoriala a alimentelor, Ed. Risoprint, Cluj-Napoca</li> <li>2. Harry T. Lawless, Hildegarde Heymann, 1998, Sensory evaluation of food-principles and practices, USA</li> <li>3. Stone, Herbert, Joel L. Sidel, 2004, Sensory Evaluation Practices (Third Edition), Ed. Elsevier Inc.</li> </ol>                                                                                                                                                                                                                                                                                      |                        |                                                                        |

**9. Correlations between the subject against the expectations of the epistemic community representatives, of the professional associations and employers' representatives in the domain**

Course content is consistent with national professional associations specific applications.

**10. Evaluation**

| Type of activity                                                                                                                                                       | 10.1. Evaluation criteria                                                                                         | 10.2. Evaluation methods         | 10.3. Percent of the final grade |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------------------|
| <b>10.4. Course</b>                                                                                                                                                    | Evaluation the knowledge acquired                                                                                 | Verification                     | 50%                              |
| <b>10.5. Seminary/Laboratory</b>                                                                                                                                       | Evaluation the knowledge acquired, evaluation the practical knowledge, degree of involvement and individual study | Presenting an individual project | 50%                              |
| <b>10.6. Minimal standard of performance</b>                                                                                                                           |                                                                                                                   |                                  |                                  |
| Factors which influence the sensorial ability. Recognition of quantitative and qualitative methods for sensory analysis of food. Statistical interpretation of results |                                                                                                                   |                                  |                                  |

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

<sup>2</sup> 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).

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

<sup>4</sup> One ECTS is equivalent with 25 hours of study (didactical and individual study).



**UNIVERSITATEA DE ȘTIINȚE AGRICOLE ȘI MEDICINĂ VETERINARĂ CLUJ-NAPOCA**

Calea Mănăștur 3-5, 400372, Cluj-Napoca

Tel: 0264-596.384, Fax: 0264-593.792

[www.usamvcluj.ro](http://www.usamvcluj.ro)

**Filled in on**  
8.09.2021

**Course coordinator**  
Assoc. Prof. PhD. Crina Muresan

**Laboratory work coordinator**  
Assoc. Prof. PhD. Crina Muresan

**Subject coordinator**  
Assoc. Prof. PhD. Crina Muresan

**Approved by the  
Department on**  
22.09.2021

**Head of the Department**  
Prof. PhD. Sevastița Muste

**Approved by the Faculty  
Council on**  
. 28.09.2021

**Dean**  
Prof. PhD. Elena Mudura