UNIVERSITATEA DE ŞTIINŢE AGRICOLE ŞI MEDICINĂ VETERINARĂ CLUJ-NAPOCA
Calea Mănăştur 3-5, 400372, Cluj-Napoca
Tel: 0264-596.384, Fax: 0264-593.792
www.usamvcluj.ro

**No._____of _____** **USAMV form CN-0705020101**

# 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 Science |
| 1.4. Field of study | Food Engineering |
| 1.5.Education level | Master |
| 1.6.Specialization/ Study programme | Food Processing and Quality Control Systems |
| 1.7. Form of education | Full time |

## 2. Information on the discipline

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2.1. Name of the discipline | Nutrition and Health | | | | | | | |
| 2.2. Course coordinator | | | | Prof dr Ramona Suharoschi<br>Lecturer dr Oana Lelia Pop | | | | |
| 2.3. Seminar/ laboratory/ project coordinator | | | | Prof dr Ramona Suharoschi<br>Lecturer dr Oana Lelia Pop | | | | |
| 2.4. Year of study | II | 2.5. Semester | **III** | 2.6. Type of evaluation | Continuous | 2.7. Discipline status | Content[2] | DD |
| | | | | | | | 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 | 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** | | | | | ore |
| **3.4.1. Study based on book, textbook, bibliography and notes** | | | | | 25 |
| **3.4.2. Additional documentation in the library, specialized electronic platforms and field** | | | | | 25 |
| **3.4.3. Preparing seminars/ laboratories/ projects, subjects, reports, portfolios and essays** | | | | | 25 |
| **3.4.4.Tutorials** | | | | | 25 |
| **3.4.5.Examinations** | | | | | 8 |
| **3.4.6. Other activities** | | | | | 0 |

| | |
|---|---|
| **3.7. Total hours of individual study** | 108 |
| **3.8. Total hours per semester** | 150 |
| **3.9. Number of credits[4]** | 6 |

## 4. Prerequisites (is applicable)

| | |
|---|---|
| 4.1. curriculum-related | *Nutrition, Organisational Chemistry, Food Chemistry, Biochemistry, Mathematics and Statistics* |
| 4.2. skills-related | The student must have knowledge of food macronutrients and micronutrients; specific, special, personalized food diets; chemical and biochemical characteristics of food |

| | |
|---|---|
| | compounds; operating IT; office use (excel); internet browsing; qualities of individual work and participation in carrier development pathways |

**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.<br>Classroom with adequate capacity, with multimedia equipment and internet connection |
| 5.2. for the seminar/ laboratory/ project | Research laboratory - Molecular and Proteomic Nutrition LAB, CDS3, ISV, with endowment of cell biology, cell cultures; microarray platform; internet connection; teaching materials: specialized journals, specialized books<br>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 | **C1.1 Use of specialist knowledge for the evaluation, processing and interpretation of human nutrition data**<br>**C3.1 - Identification and operation with the specific elements of technological, nutritional and dietary projects** |
| Transversal competences | CT3 Carrying out a complex, interdisciplinary scientific work |

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

| | |
|---|---|
| 7.1. Overall course objective | Learning and understanding the fundamental principles of personalized nutrition and the development of these dietary applications to analyze research projects in personalized nutrition and to plan balanced meals and dietary interventions addressed / applied both to healthy people and in various pathological conditions |
| 7.2. Specific objectives | To understand eating behaviors / food choice by families or groups of people and the contribution of feeding systems to these behaviors; To understand the distribution and causes of nutritional disparities among populations using tools of epidemiology, medical and social sciences; To be able to interpret the results of personalized nutritional studies and make recommendations for a healthy diet; To know the food, nutritional and dietary risk factors that influence health. |

**8. Content**

| **8.1.CURS**<br>**Number of hours -14** | Metode de predare | Observaţii |
|---|---|---|
| **Introduction to nutritional sciences** | Lecture, explanation and debate | 1 hours |
| Cardiovascular disease and nutrition | Lecture, explanation and debate | 1 hours |

| | | |
|---|---|---|
| Diabetes and nutrition | Lecture, explanation and debate | 1 hours |
| **Cancer and nutrition** | Lecture, explanation and debate | 1 hours |
| **Obesity and Weight Management - and Nutrition** | Lecture, explanation and debate | 1 hours |
| **Gastrointestinal tract diseases and nutrition** | Lecture, explanation and debate | 1 hours |
| Osteoporosis and nutrition | Lecture, explanation and debate | 1 hours |
| **Anaemia/Vitamin/mineral deficiency and nutrition** | Lecture, explanation and debate | 1 hours |
| Personalised diets and nutrition | Lecture, explanation and debate | 1 hours |
| EUFIC The European Food Information Council http://www.eufic.org/index/en/<br>Diet-affections: Obesity<br>Diet-affections: Cardiovascular<br>Diet-affections: Diabetes<br>Diet-affections: Osteoporosis<br>Diet-affections: Dental affections<br>Diet-affections: Nutritional deficiencies<br>Diet-affections: Cancer | Lecture, explanation and debate | 1 hours |
| EU and international research projects in the field of nutrition: EuroPrevall http://www.europrevall.org/ | Lecture, explanation and debate | 1 hours |
| EU and international research projects in the field of nutrition: Diogenes - Tratează problema obezității: căutarea de noi înțelesuri si modalități de preventive http://www.diogenes-eu.org/ | Lecture, explanation and debate | 1 hours |
| EU and international research projects in the field of nutrition: NuGO - Nutrigenomics Organisation http://www.nugo.org/everyone | Lecture, explanation and debate | 1 hours |
| EU and international research projects in the field of nutrition: Proiectul EPIC http://epic.iarc.fr/research/research.php | Lecture, explanation and debate | 1 hours |

| | | |
|---|---|---|
| **8.2. PRACTICAL WORK**<br>**Number of hours – 28** | | E.g. laboratory work |
| **Design: Personalised Nutrition Plan (Personalised Nutrition) -** Implementation of SMART Nutrition Targets | explanation, debate, questioning, case study | 4 hours |
| **Intervenții nutriționale (IN) – aplicații:** BCV, diabet, ageing, copii, sportivi, alergii alimentare, intolerante alimentare, cancer, etc | explanation, debate, questioning, case study | 4 hours |
| **Brainstorming-** Concept, Elaborare, Dezvoltare proiecte IN/ Aplicații | explanation, debate, questioning, case study | 4 hours |
| IN – Elaborare Design experimental studii nutriționale | case study | 4 hours |
| IN – Dezvoltare proiecte - studii nutriționale | case study | 4 hours |
| IN – Implementare programe - studii nutriționale | case study | 4 hours |
| Dezbatere si prezentarea proiectelor | case study | 4 hours |

*Compulsory bibliography:*
*Food & Nutrition & Dietetics Journals (MDPI, PubMed, Science Direct)*

**1. Cartea alba - O strategie Europeana pentru Nutriție, Supraponderalitate si Obezitate legat dezafectarea stării de sănătate**
**2.REGULAMENTUL (CE) NR. 1924/2006 AL PARLAMENTULUI EUROPEAN ŞI AL CONSILIULUI. din 20 decembrie 2006. privind mențiunile nutriționale și de sănătate înscrise pe produsele alimentare**
**3.Recomandari nutriționale si dietetic, considerații privind sănătatea publica, si date acceptate științifice legate de dieta, nutritive si sănătate Autoritatea Europeana pentru Siguranța Alimentara (EFSA)**

| |
|---|
| **4. Opinii Ştiinţifice asupra Valorile Dietetice de Referinţa pentru proteine – Panel EFSA pentru produse Dietetice, Nutriţie si Alergii**<br>**5. Opinii Ştiinţifice asupra semnificaţiei menţiunilor nutriţionale legate de izolatul proteic si reducerea concentraţiei colesterolului LDL sanguine. Articol 14 Regulament (EC) Nr 1924/2006**<br>**6. Ghid cerinţe ştiinţifice pentru menţiunile legate de sănătatea ale antioxidanţilor, alterărilor oxidative si afecţiunile cardiovasculare** |
| *Optional bibliography:*<br>*1.Journal of Nutrition Education*<br>*2Nutrition*<br>*3.Journal of Nutrition*<br>*4. Nutrition Research* |

**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 knowledge taught in the course is necessary to know and understand the role of healthy eating and nutrition based on the principles of personalized nutrition in health care and the role of the food industry specialist in developing safe, attractive foods and exploiting the relationship between health and nutrition. |

**10. Assessment**

| Type of activity | 10.1. Assessment criteria | 10.2. Assessment methods | 10.3. Percentage of the final grade |
|---|---|---|---|
| **10.4. Lecture** | Course debates on specific topic | Verification along semester - a number of 4 verifications are scheduled | 35% |
| | Research volunteers, poster presentation, manuscript review - Talks, posters, manuscripts review | Theoretical and practical skills | 5% |
| **10.5. Seminar/Laboratory** | Evaluation during the semester | Assignments | 20% |
| | Final evaluation (the scheduled assignments) | Written exam | 40% |
| **10.6. Minimum performance standards** | | | |
| Publication of min. 1 scientific article in a specialized journal or participation in min. 1 conference / symposium | | | |

[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

**Titular lucrari laborator/seminarii**
**Sef lucr dr Oana Lelia Pop**

**Titular curs**
**Prof dr Ramona Suharoschi**

**Data completării**
**14.09.2021**

**Conf dr Romana Vulturar**

**Prof dr Ramona Suharoschi**

**Coordonator disciplină**
**Prof dr Ramona Suharoschi**

**Data avizării în departament**
***22.09.2021***

**Director de departament**
**Prof dr Ramona Suharoschi**

**Data avizării în Consiliul Facultății**
**28.09.2021**

**Decan**
**Prof dr Elena Mudura**