



1. General information

Course: HUMAN NUTRITION**Type:** CORE COURSE**Degree:** 383 - UNDERGRADUATE DEGREE PROGRAMME IN FOOD SCIENCE AND TECHNOLOGY**Center:** 1 - FACULTY OF SCIENCE AND CHEMICAL TECHNOLOGY**Year:** 3**Main language:** Spanish**Use of additional languages:****Web site:****Code:** 58324**ECTS credits:** 6**Academic year:** 2022-23**Group(s):** 22**Duration:** First semester**Second language:****English Friendly:** Y**Bilingual:** N**Lecturer:** GIUSEPPE FREGAPANE QUADRI - Group(s): 22

| Building/Office | Department | Phone number | Email | Office hours |
|------------------------|--------------------------------|--------------|----------------------------|--------------|
| Marie Curie, 1a planta | Q. ANALÍTICA Y TGIA. ALIMENTOS | 3439 | giuseppe.fregapane@uclm.es | |

Lecturer: MANUELA VANESSA MANCEBO CAMPOS - Group(s): 22

| Building/Office | Department | Phone number | Email | Office hours |
|---------------------------|--------------------------------|------------------|--------------------------|--------------|
| MARIE CURIE/PLANTA PILOTO | Q. ANALÍTICA Y TGIA. ALIMENTOS | +34 926 29 52 59 | MVanessa.Mancebo@uclm.es | |

Lecturer: MARIA DESAMPARADOS SALVADOR MOYA - Group(s): 22

| Building/Office | Department | Phone number | Email | Office hours |
|------------------------|--------------------------------|--------------|-------------------------|--------------|
| Marie Curie, 1a planta | Q. ANALÍTICA Y TGIA. ALIMENTOS | 3422 | amparo.salvador@uclm.es | |

2. Pre-Requisites

The knowledge previously acquired in the subjects of the basic module Fundamentals of Physiology and Biochemistry and those of the module of Food Science and Structure and properties of the food components and of Bromatology are required..

3. Justification in the curriculum, relation to other subjects and to the profession

The subject of Human Nutrition and Dietetics of the Nutrition and Health module, integrated by the subjects of Human Nutrition and Dietetic and community nutrition has as general aims the acquisition of basic and specialized knowledge on the nutrients in relation with the human nutrition, as well as of the individual nutrition in the different stages of life and the nutrition of communities. Equally understands the study of the nutrition as preventive factor of multiple pathologies and the evaluation of the nutritional status of individuals and collectivities.

A marked interest exists at present for the human nutrition having had become clear its influence on both in the body maintenance and restoration of the health, the prevention of diseases, and in the attainment of the ideal physical and intellectual performance. This interest demands the professionals' preparation with a scientific confirmed and current formation.

4. Degree competences achieved in this course

Course competences

| Code | Description |
|------|--|
| CB02 | Apply their knowledge to their job or vocation in a professional manner and show that they have the competences to construct and justify arguments and solve problems within their subject area. |
| CB03 | Be able to gather and process relevant information (usually within their subject area) to give opinions, including reflections on relevant social, scientific or ethical issues. |
| CB04 | Transmit information, ideas, problems and solutions for both specialist and non-specialist audiences. |
| CB05 | Have developed the necessary learning abilities to carry on studying autonomously |
| E05 | To know the composition, phyco-chemical properties, nutritional value and sensory properties of foods |
| E11 | To qualify to be able to evaluate the effects of processing on the components and properties of foods |
| E18 | To acquire knowledge on food legislation and normalization. To counsel legally, scientifically and technocally the food industry and consumers. |
| E22 | To perform formation of staff in the food sector |
| E24 | To assure and improve the nutritional quality and the health properties of ingredients and foods |
| E25 | To establish and calculate patterns of healthy nutrition, as well as to develop menu scheduling for communities |
| E26 | To evaluate habits and food intake and the nutritional status at individual or community level |
| E27 | To schedule and develop programs for nutritional education and promotion and prevention of health |
| G05 | To understand and to use the English language, both written and spoken, applied to the area of the Food Science and Technology. (To be able to acquire this hability, a series of actions that will be specified in every module will be performed). |
| G06 | To dominate the Technologies of the Information and the Communication (TIC) to user's level, which allows to work in virtual spaces, Internet, electronic databases, as well as with common software packages (e.g. Microsoft Office). |
| G07 | To possess ability of organization and planning, initiative, entrepreneurship and aptitude to be employed in teamworks. To possess |

5. Objectives or Learning Outcomes

Course learning outcomes

Description

To achieve that the student is capable of seeking and selecting information in the area of these disciplines and that he is capable of interpreting it and to present it adequately both in oral as written forms, in Spanish and English languages.

To achieve that the student is capable of evaluating the nutritional value, the functional properties and the nutritional importance of the foods. Also it is aimed that the student knows the effects of the food processing on the components of nutritional interest and that he can assure and to improve the nutritional quality and the healthy properties of ingredients and foods.

It is aimed that the student acquires the concepts and basic principles of the human nutrition, dietetics and community nutrition and to develop in the student the aptitude to propose and solve practical cases, as well as of interpreting the obtained results.

In the area of the community nutrition and public health to achieve that the student is capable of: planning and developing programs of nutritional education and of promotion and of prevention in health; to establish and to calculate food healthy guidelines, as well as to develop the planning of menus for collectivities; to evaluate the habits and the food intake and the nutritional status of individual and collectivities and to develop epidemiological studies.

6. Units / Contents

Unit 1: Fisiology of nutrition

Unit 2: Energy metabolism I: expenditure and demand of energy

Unit 3: Energy metabolism II: metabolic pathways and regulation

Unit 4: Carbohydrate and fiber

Unit 5: Lipids: body fat and dietary fat

Unit 6: Proteins

Unit 7: Liposoluble vitamins

Unit 8: Hidrosoluble vitamins

Unit 9: Macrominerals

Unit 10: Oligoelements

Unit 11: Water and electrolytes

Unit 12: Functional components. Antinutrients

Unit 13: Practical activities and problem solving

7. Activities, Units/Modules and Methodology

| Training Activity | Methodology | Related Competences (only degrees before RD 822/2021) | ECTS | Hours | As | Com | Description |
|--|----------------------------------|---|---|------------|----|-----|-------------|
| Class Attendance (theory) [ON-SITE] | Lectures | | 1.4 | 35 | Y | N | |
| Laboratory practice or sessions [ON-SITE] | Practical or hands-on activities | | 0.4 | 10 | Y | Y | |
| Group tutoring sessions [ON-SITE] | Group tutoring sessions | | 0.1 | 2.5 | Y | N | |
| Study and Exam Preparation [OFF-SITE] | Self-study | | 0.8 | 20 | Y | N | |
| Final test [ON-SITE] | Assessment tests | | 0.1 | 2.5 | Y | N | |
| Workshops or seminars [ON-SITE] | Workshops and Seminars | | 0.4 | 10 | Y | N | |
| Other off-site activity [OFF-SITE] | Combination of methods | | 2.8 | 70 | Y | N | |
| Total: | | | 6 | 150 | | | |
| Total credits of in-class work: 2.4 | | | Total class time hours: 60 | | | | |
| Total credits of out of class work: 3.6 | | | Total hours of out of class work: 90 | | | | |

As: Assessable training activity

Com: Training activity of compulsory overcoming (It will be essential to overcome both continuous and non-continuous assessment).

8. Evaluation criteria and Grading System

| Evaluation System | Continuous assessment | Non-continuous evaluation* | Description |
|-------------------|-----------------------|----------------------------|---|
| Test | 40.00% | 40.00% | Written examen on practical activities |
| Test | 60.00% | 60.00% | Written examen on theoretical knowledge |
| Total: | 100.00% | 100.00% | |

According to art. 4 of the UCLM Student Evaluation Regulations, it must be provided to students who cannot regularly attend face-to-face training activities the passing of the subject, having the right (art. 12.2) to be globally graded, in 2 annual calls per subject, an ordinary and an extraordinary one (evaluating 100% of the competences).

Evaluation criteria for the final exam:

Continuous assessment:

Defined in Campus virtual.

Non-continuous evaluation:

Defined in Campus virtual.

Specifications for the resit/retake exam:

None

Specifications for the second resit / retake exam:

None

| 9. Assignments, course calendar and important dates | |
|---|-------|
| Not related to the syllabus/contents | |
| Hours | hours |

| 10. Bibliography and Sources | | | | | | |
|------------------------------|--|----------------------------|------|---------------|------|-------------|
| Author(s) | Title/Link | Publishing house | City | ISBN | Year | Description |
| Krause, Marie V. (1906-1994) | Nutrición y dietoterapia de Krause | McGraw-Hill Interamericana | | 970-10-3204-7 | 2005 | |
| Brody, Tom | Nutritional biochemistry | Academic Press | | 0-12-134836-9 | 1999 | |
| Martínez, J. Alfredo | Fundamentos teórico-prácticos de nutrición y dietética | McGraw-Hill Interamericana | | 84-486-0207-2 | 2000 | |