

**Información del Plan Docente**

Academic Year	2016/17
Academic center	105 - Facultad de Veterinaria
Degree	568 - Degree in Food Science and Technology
ECTS	6.0
Course	2
Period	Second semester
Subject Type	Compulsory
Module	---

**1.Basic info****1.1.Recommendations to take this course****1.2.Activities and key dates for the course****2.Initiation****2.1.Learning outcomes that define the subject****2.2.Introduction****3.Context and competences****3.1.Goals****3.2.Context and meaning of the subject in the degree****3.3.Competences****3.4.Importance of learning outcomes****4.Evaluation****5.Activities and resources****5.1.General methodological presentation**

The learning process that is designed for this subject is based on the following:

The course is structured in 45 participatory lectures and 15 hours of practice; practices hours are divided into 3 hours of problems and case studies distributed in 2 seminars of 1.5 hours each plus 12 hours of laboratory work and preparation of surveys organized in 3 sessions of 4 hours each. The preparation of reports and practical work that include relevant aspects of the course will require 14 hours of autonomous work of the students, using mentoring when needed.

## **5.2.Learning activities**

Regarding participatory lectures, it is intended to facilitate the documentation of each topic in advance for the student to review it before the corresponding class. In some cases sources of information, tables and graphs will be in English, so students have a glossary of technical terms related to the subject and its corresponding equivalence to Spanish. During the classes the different learning activities will cover all lessons of the program. The seminars will be organized in sessions of 1.5 hours and students will work on the study of nutrition and health claims made on food (1 session in English) and on a preparatory exercise for a diet design (1 session). The laboratory practices will be conducted in 4 hour sessions. A session will be related to nutritional analysis and evaluation of functional components in food. The remaining two sessions will be dedicated to a dietary survey tutored by teachers and the use of software of nutrition and dietetics. A written report of the practical sessions, consisting of the analysis and interpretation of the results, will be asked to each student

All teaching materials for the course (class notes, protocols of practices, dietary survey, support material, recommended bibliography, web addresses) will be available in advance on the Teaching Digital Ring (ADD) of the University of Zaragoza and reprographic service of the Veterinary Faculty of Zaragoza.

## **5.3.Program**

The program offered to the student to achieve the expected results includes the following activities ...

**1:**

### **Theoretical teaching:**

#### **1 Introduction to the course and basic concepts.**

Presentation of the subject, learning outcomes, program activities, teaching materials, evaluation systems and criteria, and other aspects of interest.

Basic concepts of human nutrition

0.3 ECTS

#### **2 Nutrients and energy.**

Energy and energy balance. Carbohydrates. Fibre. Lipids. Proteins. Vitamins. Minerals. Water. Nutrient requirements and recommendations. Basis of energy and nutritional balance.

1.6 ECTS

#### **3 Nutritional value, nutrition labeling, nutrition and health claims for food.**

0.6 ECTS

**4 Diet:** Basic concepts; food guides and dietary goals; tables and databases of food composition and rations; basis for

diet design; types of diets.

0.4 ECTS

**5 Diets according physiological stages:** pregnant, infants, children, adolescents, adults, elderly.

0.9 ECTS

**6 Diets for people with specific needs:** vegetarian diets, alternative diets, diets for sport. Diet and health.

0.7 ECTS

**2:**

**Practical teaching:**

**Seminars:**

**1 Problems and case studies of nutrition labeling, nutrition claims and health claims in food.** This session will be given in English.

0.15 ECTS

**2 Practical exercise of diet design.**

0.15 ECTS

**3 Practical nutritional analysis and evaluation of functional components.**

0.4 ECTS

**4 Critical analysis of an academic work. Conduct a dietary survey.**

0.4 ECTS

**5 Evaluation and preparation of diets using a computer program.**

0.4 ECTS

**5.4 Planning and scheduling**

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### Schedule of sessions and presentation of works

The dates and key milestones of the course are described in detail, along with the other courses in the second year of Food Science & Technology Degree, on the website of the Veterinary Faculty (link: <http://veterinaria.unizar.es/gradocta/>). This link will be updated at the beginning of each academic year.

Theoretical classes begin in February and will continue through May of each academic year. They will be held in a Room of Central Building assigned by the Center.

Practical classes: groups and schedule will be coordinated by the Center. They will be taught in laboratories of the Unit of Nutrition and Food Science (Zootecnia Building), and in computer classrooms and other Rooms assigned by the Center.

Written final exam of multiple choice: will last 2.5 hours.

Mentoring will be conducted at any time agreed with the teachers of the course.

### 5.5.Bibliography and recommended resources

<http://psfunizar7.unizar.es/br13/egAsignaturas.php?codigo=30819&Identificador=C70429>

Typically, the literature of the academic year is kept updated and is consulted at the Library website ([biblioteca.unizar.es](http://biblioteca.unizar.es))

BB Alimentación y nutrición: manual teórico-práctico / Clotilde Vázquez, A. I. de Cos, C. López-Nomdedeu (editoras). 2<sup>a</sup> ed. Madrid: Díaz de Santos, D.L. 2005

BB ANS: alimentación, nutrición y salud. Barcelona: Instituto Danone, 1994- [Publicación periódica]

BB Cervera Ral, Pilar. Alimentación y dietoterapia: (nutrición aplicada en la salud y la enfermedad) / Pilar Cervera, Jaume Clapes, Rita Rigolfas. 4<sup>a</sup> ed. Madrid [etc.]: McGraw-Hil-Interamericana, D.L. 2005

BB Dietética y nutrición: manual de la Clínica Mayo / Jennifer K. Nelson ... [et al.] ; [traducción y producción editorial Diorki ; revisión Elena de Terán Bleiberg] . 7<sup>a</sup> ed. Madrid [etc.]: Mosby-Doyma Libros, D.L. 1995

BB Krause dietoterapia / [editado por] L. Kathleen Mahan, Sylvia Escott-Stump, Janice J. Raymond.. 13a. ed. Amsterdam, Barcelona, etc.: Elsevier, cop. 2013.

BB Mataix Verdú, Francisco José.. Tratado de nutrición y alimentación humana. vol.1, Nutrientes y alimentos / [autor general y editor] José Mataix Verdú.. Nueva edición ampliada. Madrid: Océano/Ergón, cop. 2009.

BB Mataix Verdú, Francisco José.. Tratado de nutrición y alimentación humana. vol.2, Situaciones fisiológicas y patológicas / [autor general y editor] José Mataix Verdú.. Nueva edición ampliada. Madrid: Océano/Ergón, cop. 2009.

BB Nutrición y salud pública: métodos, bases científicas y aplicaciones / Editores, Lluís Serra Majem, Javier Aranceta Bartrina; editor asociado, José Mataix Verdú ; Secretarías de redacción, Lourdes Ribas Barba, Carmen Pérez Rodrigo ; con 126 colaboradores ; prólogo de Ricardo Uauy . 2<sup>a</sup> ed. Barcelona [etc.]: Masson, 2006

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BB Tratado de nutrición. Tomo I, Bases fisiológicas y bioquímicas de la nutrición / Director Ángel Gil Hernández; coordinador Fermín Sánchez de Medina Contreras. 2<sup>a</sup> ed. Madrid [etc.]: Editorial Médica Panamericana, 2010

BB Tratado de nutrición. Tomo II, Composición y calidad nutritiva de los alimentos / Director Ángel Gil Hernández; coordinador María Dolores Ruiz López. 2<sup>a</sup> ed. Madrid [etc.]: Editorial Médica Panamericana, 2010

BB Tratado de nutrición. Tomo III, Nutrición humana en el estado de salud / Director Ángel Gil Hernández; coordinadores José Maldonado Lozano, Emilio Martínez de Victoria Muñoz . 2<sup>a</sup> ed. Madrid [etc.]: Editorial Médica Panamericna, 2010

BB Tratado de nutrición. Tomo IV, Nutrición clínica / Director Ángel Gil Hernández; coordinadores Mercè Planas Vilà ... [et al.] . 2<sup>a</sup> ed. Madrid [etc.]: Editorial Médica Panamericana, 2010

### LISTADO DE URLs:

BEDCA. Base de Datos Española de Composición de Alimentos - [<http://www.bedca.net/>]

EFSA. European Food Safety Authority - [<http://www.efsa.europa.eu/en/topics/topic/nutrition.htm>]

FESNAD. Federación Española de Sociedades de Nutrición, Alimentación y Dietética - [<http://www.fesnad.org/>]

Fundación Alimentación Saludable - [<http://www.alimentacionsaludable.es/>]

Nutrición clínica y Dietética Hospitalaria - [<http://revista.nutricion.org/>]

SEDCA. Sociedad Española de Dietética y Ciencias de la Alimentación - [<http://www.nutricion.org/>]

Web de todas las titulaciones de La Universidad de Zaragoza, con acceso a las guías docentes - [<http://titulaciones.unizar.es/>]