30812 - Bromatology

Información del Plan Docente

Academic Year	2018/19
Subject	30812 - Bromatology
Faculty / School	105 - Facultad de Veterinaria
Degree	568 - Degree in Food Science and Technology
ECTS	6.0
Year	2
Semester	First semester
Subject Type	Compulsory
Module	---

1.General information

1.1.Aims of the course

1.2.Context and importance of this course in the degree

1.3.Recommendations to take this course

2.Learning goals

2.1.Competences

2.2.Learning goals

2.3.Importance of learning goals

3.Assessment (1st and 2nd call)

3.1.Assessment tasks (description of tasks, marking system and assessment criteria)

4.Methodology, learning tasks, syllabus and resources

4.1.Methodological overview

The methodology followed in this course is oriented towards the achievement of the learning objectives. A wide range of teaching and learning tasks are implemented, such as:

A teaching program of 40 lectures and 20 hours of laboratory practices.

In relation to the theoretical teaching given in lectures, it is scheduled to deliver to students well in advance the documentation for each topic, with the aim that the student knows the contents on the topic to be treated, which will allow a class more participatory.

30812 - Bromatology

The practical sessions are conducted in 4 hours. Each group is scheduled to perform practices Monday through Friday. As in the theoretical teaching, students have in advance the script of practices.

4.2.Learning tasks

The course includes the following learning tasks:

- Lectures. Attending lectures where the information provided is given to the student prior to the presentation in class.
- Practice sessions. Conducting laboratory practices using protocols previously provided. Development of practices laboratory report to be delivered at the end of them and will be supervised by teachers.
- Autonomous work and study.
- Assessment tasks. Written preparation and presentation of a paper on the bromatological study about an assigned food and tutored by teachers.

4.3.Syllabus

The course will address the following topics:

Block I. General principles

- **Theoretical teaching**:
  - Topic 1. Food Science.
  - Topic 2. Food and nutrients.
  - Topic 3. Organoleptic characteristics of food.
  - Topic 4. Food consumption in Spain. Nutritional assessment of the Spanish diet.
  - Topic 5. Mandatory standards of quality.
- **Practical teaching**: Parameters established for quality standards of different foods.
- **Teaching and learning activities: (0.8 ECTS according presentiality).**
  - Theory sessions: 5 hours
  - Laboratory sessions: 3 hours
  - Independent work of student: 12 hours

Block II. Descriptive food science: Foods of animal origin

- **Theoretical teaching**: Concept, characteristics, classification, alterations, chemical composition and nutritional value of foods of animal origin.
  - Topic 6 and 7. Meat and meat products
  - Topic 8 and 9. Milk and Dairy Products
  - Topic 10 and 11. Fish and Shellfish
  - Topic 12. Eggs and egg products
  - Topic 13. Honey
- **Practical teaching**: Organoleptic assessment, identification and classification of food of animal origin.
- **Teaching-learning activities: (2.4 ECTS according presentiality).**
  - Theory sessions: 15 hours
  - Laboratory sessions: 9 hours
  - Independent work of student: 32 hours

Block III. Descriptive Bromatology: Foods of vegetable and fungal origin

- **Theoretical teaching:** Concept, characteristics, classification, alterations, chemical composition and nutritional value of foods of vegetable and fungal origin
  - Topic 14. Fruit and vegetable products
  - Topic 15. Dried legumes
  - Topic 16. Cereals and cereal product
  - Topic 17. Confectionery and pastries products

  - Topic 18. Food Seasonings
  - Topic 19. Sweeteners
  - Topic 20. Food stimulants
  - Topic 21. Fats and Oils
  - Topic 22. Mushrooms
- **Practical teaching**: Organoleptic assessment, identification and classification of foods of vegetable and fungal origin
- **Teaching-learning activities: (2.3 ECTS according presentiality).**
  - Theory sessions: 15 hours
  - Laboratory sessions: 8 hours
  - Independent work of student: 32 hours

Block IV. Descriptive Bromatology: Other foods

- **Theoretical teaching:** Concept, characteristics, classification, chemical composition and nutritional value of other
  - Foods. Topic 23. Organic food, Topic 24. Genetically modified foods and Topic 25. Functional foods.
- **Teaching and learning activities: (0.5 ECTS according presentiality).**
  - Lectures: 5 hours
  - Independent work of student: 10 hours

4.4.Course planning and calendar

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

4.5.Bibliography and recommended resources

The updated bibliography is incorporated through the Library Center and can be accessed by the web.

Alimentos: composición y propiedades / [editado por] Iciar Astiasarán Anchía y J. Alfredo Martínez Hernández. 2a. ed., 2a. reimp. Madrid [etc.]: McGraw-Hill.Interamericana, 2003

Bello Gutiérrez, José. Ciencia bromatológica: principios generales de los alimentos / José Bello Gutiérrez. Madrid: Díaz de Santos, D.L. 2000

Elementos de bromatología descriptiva / Günter Vollmer [et al.]; [traducido por María Marcela González Gross]; [revisión... Andrés Marcos Barrado]. Zaragoza: Acribia, 1999

Kuklinski, Claudia. Nutrición y bromatología / Claudia Kuklinski. Barcelona: Omega, D.L. 2003.

Mataix Verdú, Francisco José. Nutrición y alimentación humana. I, Nutrientes y alimentos / José Mataix Verdú. 2ª ed. Majadahonda: Ergón, cop. 2009

30812 - Bromatology

Potter, Norman N. Ciencia de los alimentos / Norman N. Potter, Joseph H. Hotchkiss. reimp. Zaragoza, Acribia, 2015

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

Vaclavik, Vickie A. Fundamentos de ciencia de los alimentos / Vickie A. Vaclavik, con la colaboración de Elizabeth W. Christian; traducido por Isabel Jaime Moreno . Zaragoza:Acribia, D.L. 2002