29207 - Food Toxicology

Información del Plan Docente

Academic Year	2017/18
Faculty / School	229 - Facultad de Ciencias de la Salud y del Deporte
Degree	441 - Degree in Human Nutrition and Dietetics
ECTS	6.0
Year	1
Semester	Second semester
Subject Type	Compulsory
Module	---

1.General information

1.1.Introduction

1.2.Recommendations to take this course

1.3.Context and importance of this course in the degree

1.4.Activities and key dates

2.Learning goals

2.1.Learning goals

2.2.Importance of learning goals

3.Aims of the course and competences

3.1.Aims of the course

3.2.Competences

4.Assessment (1st and 2nd call)

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

5.Methodology, learning tasks, syllabus and resources

5.1.Methodological overview

The subject is structured in 20 hours of Master Classes: Expositive, explanatory and/or demostrative sessions of contents, using blackboard and/or audiovisual material with informatic support

28 hours Group seminars to solve problems and cases

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8 hours Practical Analytical Toxicology in the laboratory

4 hours of computer workshop for the learning of search of toxicological information in specialized bases in Internet

5.2.Learning tasks

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

Participatory theoretical casses. Presencial. 20 hours. The basic theoretical knowledge of the subject is presented

Practical laboratory classes. Presencial. 8 hours. They will take place in the toxicology laboratory, in groups of approximately 8 students.

Computer workshop. 4 hours for learning to search for toxicological information on specialized internet bases

5.3.Syllabus

Theorical classes (20 hours): Presential (large group)

1.Introduction to toxicology.

2.Chemical and biochemical concepts.

3.Toxicokinetic.

4.Toxicodynamic. Carcinogenesis.

5.Etiology, clinic and treatment of toxicity poisoning.

6.Toxicity evaluation. Exposure assessment.

7.Toxicological implications of food technology.

8.Naturally occurring toxic substances in food. Animal and plantas toxins.

9.Mycotoxins.

10.Food additives. Colorants, preservatives and drugs used in animals.

11.Organic solvents

12.Metal toxicity

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13.Toxicity of pesticides

14.Toxicity of plastics

15.Toxicity of gases

16.Epidemics toxic food

Lab practices (8 hours). Presential (small groups)

a.Theorical class: Analytical techniques (2 hours)

b.Practical of analytical toxicology: Tinder reaction and thin layer chromatography (6 hours)

5.4.Course planning and calendar

Calendar of presential sessions and presentation of oral essais

The subject begins in the second semester; it consists of 20 hours of Master classes (Explanator Sessions...) and 28 hours of Seminars for the resoluction of Problems and Cases (Discussion Topics)

5.5.Bibliography and recommended resources

Toxicologia de los alimentos. María de la Concepción Calvo Carrillo y Eduardo Mendoza Martinez. Editorial McgrawHill. 2012.

Introducción a la toxicología de los alimentos. Takayuki Shibamoto, Leonard F. Bjeldares. Editorial Acribia. 1996.

Fundamentos de Ciencia Toxicológica. Jose Bello Gutierrez, Adela Lopez de Cerain. Editorial Díaz de Santos. 2001.

Toxicología Fundamental. Manuel Repetto. Editorial Díaz de Santos. 2009.

Principles of Food Toxicology. Toñu Pussa. Editorial CRC Press Taylorand Francis Group. 2014.