

**COURSE DATA****Data Subject**

|                      |                 |
|----------------------|-----------------|
| <b>Code</b>          | 42691           |
| <b>Name</b>          | Food safety     |
| <b>Cycle</b>         | Master's degree |
| <b>ECTS Credits</b>  | 3.0             |
| <b>Academic year</b> | 2023 - 2024     |

**Study (s)**

| <b>Degree</b>   | <b>Center</b>                         | <b>Acad. year</b> | <b>Period</b> |
|---|---------------------------------------|-------------------|---------------|
| 2124 - M.U. en Salud pública y gestión sanitaria 12-V.1 | Faculty of Pharmacy and Food Sciences | 1                 | First term    |

**Subject-matter**

| <b>Degree</b>   | <b>Subject-matter</b> | <b>Character</b> |
|---|-----------------------|------------------|
| 2124 - M.U. en Salud pública y gestión sanitaria 12-V.1 | 3 - Health protection | Obligatory       |

**Coordination**

| <b>Name</b>           | <b>Department</b>   |
|-----------------------|---|
| RUIZ LEAL, MARIA JOSE | 265 - Prev. Medicine, Public Health, Food Sc., Toxic. and For. Med. |

**SUMMARY**

Food Safety module aims to provide knowledge to estimate the risks associated with exposure to natural or synthetic toxics in food based on consumption patterns and population subgroups.

It will address the toxics of concern in public health, its sources and formation and its effects, action mechanisms and manifestations of these effects and prevention of the intoxications by establishing safe limits. It will study the methods used for toxicological research that will link the dose with the effects and by extrapolation using uncertainty factors to establish the most appropriate safety margins. It will introduce in the process of assessment, management and communication of toxicological concern.



## PREVIOUS KNOWLEDGE

### Relationship to other subjects of the same degree

There are no specified enrollment restrictions with other subjects of the curriculum.

### Other requirements

The recommended profile is the person in possession of an official university degree.

## OUTCOMES

### LEARNING OUTCOMES

The teaching-learning process in this area will help the students acquire basic skills, general and cross-listed in the general content of the Master, and in particular the development of specific skills more directly related to the following contents:

- Knowledge of toxics in foods.
- Toxicological analysis procedures.
- Toxicological assessment methodologies.

Toxicological risk assessment.

## DESCRIPTION OF CONTENTS

### 1. Security food

- Physical, chemical and biological risks.
- Characterization of the risks through hazard identification and assessment of toxic exposure through the diet.
- Control and safety limits. Models to predict exposure and set security levels.
- Evaluation of toxicokinetic models. Evaluation of toxic in food, toxic in the environment and toxic in the workplace.
- Food hygiene.



## WORKLOAD

| ACTIVITY                             | Hours        | % To be attended |
|--------------------------------------|--------------|------------------|
| Theory classes                       | 24,00        | 100              |
| Study and independent work           | 15,00        | 0                |
| Readings supplementary material      | 10,00        | 0                |
| Preparation of evaluation activities | 10,00        | 0                |
| Preparing lectures                   | 25,00        | 0                |
| <b>TOTAL</b>                         | <b>84,00</b> |                  |

## TEACHING METHODOLOGY

Theoretical lessons.

Reading and discussion of documents.

Resolution of practical cases.

Problem solving.

Projects development.

Individual Tutorial.

## EVALUATION

Theory assessment. 85%

Attendance and participation in classes. 15%

## REFERENCES

### Basic

- Bocio A, Castell V, Falcó G, Gosálbez P, Ramos, AJ. Contaminants químics, estudi de dieta total a Catalunya, Agència Catalana de Seguretat Alimentaria. Generalitat Catalunya, Barcelona (Spain), 2005.
- Dietary exposure assessment of chemicals in food. Report of a Joint FAO/WHO consultation Annapolis, Maryland, USA, 2-6 May 2005.



- Faustman EM, Omenn GS, Risk Assesment. En Casaret and Doulls Toxicology, Seventh ed. (Ed. Klaassen CD. Mc Graw Hill, London 2008.
- Cameán A, Repetto M. Toxicología Alimentaria. Díaz de Santos, Madrid 2006.
- Lipscomb JC, Ohanian EV. Toxicokinetics and Risk Assessment. Informa, London 2007.
- Repetto, M, Repetto G. Toxicología Fundamental, 4ª ed, Díaz de Santos Madrid 2009.
- AECOSAN. <http://aesan.msssi.gob.es/>

#### **Additional**

- Commision Regulation (EC) No 1881/2006 of 19 December 2006 setting maximum levels for certain contaminants in foodstuffs. L364/5-24, Official Journal of European Union 2006.
- FAOSTAT. <http://faostat3.fao.org/faostat-gateway/go/to/browse/D/FS/E>
- WHO-FOOD SAFETY. <http://www.who.int/foodsafety/en/>
- EU. [http://ec.europa.eu/food/food/index\\_en.htm](http://ec.europa.eu/food/food/index_en.htm)
- RASFF. [http://ec.europa.eu/food/safety/rasff/index\\_en.htm](http://ec.europa.eu/food/safety/rasff/index_en.htm)