

**COURSE DATA****DATA SUBJECT**

Code: 42691
Name: Food safety
Cycle: Master's Degree
ECTS Credits: 3
Academic year: 2026-27

STUDY (S)

| Degree | Center | Acad. year | Period |
|---|--|------------|---------------|
| 2124 - Master's Degree in Public Health and Healthcare Management | Facultat de Farmàcia i Ciències de l'alimentació | 1 | First quarter |

SUBJECT-MATTER

| Degree | Subject-matter | Character |
|---|-------------------|------------|
| 2124 - Master's Degree in Public Health and Healthcare Management | Health protection | COMPULSORY |

COORDINATION

RUIZ LEAL MARIA JOSE

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.

COMPETENCES / LEARNING OUTCOMES

2124 - Master's Degree in Public Health and Healthcare Management

Be able to integrate into teams, both as managers or coordinators and for specific and limited functions and in support of the team or of others.

Capacidad de integrar las nuevas tecnologías en su labor profesional y/o investigadora.

Capacidad para aplicar los conocimientos adquiridos a la resolución de problemas en salud pública.

Capacidad para formular una hipótesis, diseñar y desarrollar un proyecto de investigación.

Capacidad para integrar conocimientos y enfrentarse a la complejidad de formular juicios y tomar decisiones a partir de una información que, en muchas ocasiones es incompleta o limitada, e incluya reflexiones sobre las responsabilidades sociales y éticas vinculadas a la aplicación de sus conocimientos y juicios.

Capacitarlo para trabajar en equipos multidisciplinares reproduciendo contextos reales y aportando y coordinando los propios conocimientos con los de otras ramas e intervinientes.

Comprender los fundamentos de los métodos estadísticos y epidemiológicos, en general y aplicados a problemas específicos de salud.

Conocer la evaluación, comunicación y gestión de los riesgos para la salud en materia de sanidad animal y de seguridad alimentaria.

Conocer los conceptos propios de la medicina preventiva, la epidemiología, y la salud pública, su relación con el contexto socioeconómico y su evolución a lo largo del tiempo.

Conocer los fundamentos de las principales estrategias de prevención de la enfermedad, protección y promoción de la salud actualmente disponibles.

Critically analyze both his/her work and that of the colleagues.

Dotarles de práctica en las técnicas de exposición oral, escrita, presentaciones, paneles, etc- para comunicar sus conocimientos, propuestas y posiciones.

Elaborar planes para analizar la situación de la salud de la comunidad.

Identificar y priorizar los determinantes de salud y los estilos de vida saludable de una población.

Participate in, lead and coordinate debates and discussions, be able to summarize them and extract the most relevant conclusions accepted by the majority.

Poder aplicar sus conocimientos sobre problemas concretos y saber resumir y extraer los argumentos y las conclusiones más relevantes para su resolución.

Saber trabajar en equipo con eficacia y eficiencia, y con capacidad de comunicación social.



Ser competente para intervenir en situaciones de emergencia sanitaria.

Students should apply acquired knowledge to solve problems in unfamiliar contexts within their field of study, including multidisciplinary scenarios.

Students should be able to integrate knowledge and address the complexity of making informed judgments based on incomplete or limited information, including reflections on the social and ethical responsibilities associated with the application of their knowledge and judgments.

Students should communicate conclusions and underlying knowledge clearly and unambiguously to both specialized and non-specialized audiences.

Students should demonstrate self-directed learning skills for continued academic growth.

Students should possess and understand foundational knowledge that enables original thinking and research in the field.

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

PRESENCIAL ACTIVITIES

| Activity | Hours |
|--------------------|--------------|
| Theory | 24,00 |
| Total hours | 24,00 |

NON PRESENCIAL ACTIVITIES

| Activity | Hours |
|---------------------------------------|-------|
| Attendance at other activities | 0,00 |
| Individual or group project | 0,00 |
| Independent study and work | 25,00 |
| Preparation of lessons | 25,00 |
| Preparation for assessment activities | 10,00 |



| | |
|----------------------------|--------------|
| Resolution of case studies | 0,00 |
| Total hours | 60,00 |

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

- 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, 4^a ed, Díaz de Santos Madrid 2009.
- AECOSAN. <http://aesan.msssi.gob.es/>
- 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
- RASFF. http://ec.europa.eu/food/safety/rasff/index_en.htm