COURSE DATA

DATA SUBJECT

Code: 41027
Name: Nutrition and Bromatology
Cycle: Master's Degree / Doctorate
ECTS Credits: 10
Academic year: 2026-27

STUDY (S)

Degree	Center	Acad. year	Period
2021 - Master's Degree in Food Quality and Safety	Facultat de Farmàcia i Ciències de l'alimentació	1	Annual

SUBJECT-MATTER

Degree	Subject-matter	Character
2021 - Master's Degree in Food Quality and Safety	Nutrition and bromatology	COMPULSORY

COORDINATION

RUIZ LEAL MARIA JOSE

BARBERA SAEZ REYES

ESTEVE MAS MARIA JOSE

SUMMARY

The Nutrition and Bromatology module will provide knowledge on design, formulation and functionality of bioactive components in food.

Food related processes and their adaptation to current quality standards in the food industry will be studied. The latest developments and trends in this field will be considered.

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

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

OTHER REQUIREMENTS

There are no enrollment restrictions for other subjects in the curriculum

COMPETENCES / LEARNING OUTCOMES

2021 - Master's Degree in Food Quality and Safety

Adquirir conocimientos sobre los procedimientos reglamentarios en la gestión de la calidad alimentaria

Capacidad para adaptar los procesos relacionados con los alimentos a las normas vigentes de higiene de los alimentos y sistemas de gestión de calidad.

Conocer bases científicas de la nutrición y en relación con los últimos desarrollos y tendencias en este campo.

Conocer la investigación que en alimentación, nutrición y tecnología alimentaria demanda nuestra región.

Contemplar en conjunto y tener en cuenta los distintos aspectos y las implicaciones en los distintos aspectos de las decisiones y opciones adoptadas, sabiendo elegir o aconsejar las más convenientes dentro de la ética, la legalidad y los valores de la convivencia social.

Elaborar y manejar los escritos, informes y procedimientos de actuación más idóneos para los problemas suscitados.

Know how to work in multidisciplinary teams reproducing real contexts and contributing and coordinating their own knowledge with that of other branches and participants.

Manejar la metodología estadística y saber analizar problemas y aplicar las herramientas estadísticas más apropiadas en cada caso.

Obtener la cualificación necesaria para incorporarse a Departamentos de Investigación, Desarrollo e Innovación dentro de las empresas del sector agroalimentario.

Obtener la formación necesaria para incorporarse a Departamentos de Investigación, Desarrollo e Innovación dentro de las empresas del sector agroalimentario.

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

Planificar, ordenar y encauzar actividades de manera que se eviten en lo posible los emprevistos, se prevean y minimicen los eventuales problemas y se anticipen sus soluciones.

Proyectar sobre problemas concretos sus conocimientos y saber resumir y extractar los argumentos y las conclusiones más relevantes para su resolución.

Saber evaluar la influencia de los componentes de los alimentos en la calidad de los mismos.

Ser capaces de obtener y de seleccionar la información y las fuentes relevantes para la resolución de problemas, elaboración de estrategias y asesoramiento a clientes.

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.

Use different presentation formats (oral, written, slide presentations, boards, etc.) to communicate knowledge, proposals and positions.

DESCRIPTION OF CONTENTS

1. Nutrition and Food Science

- Employment guiadance and entrepreneurship in the agri-food sector.
- Documentation and management of scientific information.
- National and European agencies in nutrition and food quality.
- Validation of methods in food analysis.
- Nutritional quality: protein, nutritional profile improvement, microbiota, nutrigenomics and nutrigenetics.
- Quality in the agri-food sector: food information, management, certification, audits and sustainability.
- Biological activity of ingredients and/or bioactive components of food: in vivo and in vitro methods.
- Conferences related to food quality

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Theory	85,00
Total hours	**85,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	18,00
Individual or group project	20,00
Independent study and work	33,00
Preparation of lessons	90,00
Preparation for assessment activities	4,00

Resolution of case studies	0,00
Total hours	**165,00**

TEACHING METHODOLOGY

Theoretical classes: the lecturer, an expert in the subject to be covered, will provide the student with information on the subject to be studied (basic and/or complementary) previously in the virtual classroom. In order to follow the class, the student is recommended to review the material beforehand.

Group work activities: The lecturer may propose individual and/or group activities to the master students.

Workshops will be held on specific topics of interest such as entrepreneurship, food quality, industrial doctorate and food innovation.

During the theoretical classes and activities, the contents of the subject will be related to the Sustainable Development Goals (SDGs). This is intended to provide knowledge, skills and motivation to understand and address these SDGs, while promoting reflection and critique.

EVALUATION

In order to evaluate the theory, tests will be given throughout the period of the course. These tests may be written and/or on-line. The exam will consist of multiple choice questions. In order to pass the course, it is necessary to achieve a grade that is equal to or higher than 5.

There may be individual and/or group evaluable activities that will contribute a maximum of 10% to the final grade.

REFERENCES

- The teaching staff have recommended readings that are available in UV databases or accessible on the internet.
- https://www.aesan.gob.es/AECOSAN/web/home/aecosan_inicio.htm
- http://www.efsa.europa.eu/es
- https://www.mapa.gob.es/es/alimentacion/temas/default.aspx
- https://www.fao.org/home/es