VNIVERSITAT DE VALÈNCIA

Course Guide
41027 Nutrition and Bromatology

COURSE DATA

Data Subject	
Code	41027
Name	Nutrition and Bromatology
Cycle	Master's degree
ECTS Credits	10.0
Academic year	2023 - 2024

Study (s)

Degree	Center	Acad. year	Period
2021 - M.D. in Food Quality and Safety	Faculty of Pharmacy and Food Sciences	1	Annual

Subject-matter

Degree	Subject-matter	Character
2021 - M.D. in Food Quality and Safety	2 - Nutrition and bromatology	Obligatory

Coordination

Name	Department
FONT PEREZ, GUILLERMINA	265 - Prev. Medicine, Public Health, Food Sc.,Toxic. and For. Med.

SUMMARY

The module of Nutrition and Food Science will provide the scientific knowledge, in relation to recent developments and trends in this field. The necessary tools to assess dietary habits, recognizing the nutritional needs of certain communities will be employed.

The propose of techniques, strategies and models of nutritional intervention in special physiological situations, as well as the most prevalent diseases or food related will be addressed. The in vivo and in vitro models to evaluate the functionality of bioactive components of ingredients/foods will be studied. The ability to adapt processes related to food to standards of the hygiene of food and quality management systems will be developed.

The research on food, nutrition and food technology demands of our region will be studied.
The knowledge and skills obtained will allow obtaining the qualification required to join departments of research, development and innovation in food companies.

PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

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

Other requirements

Not applicable

OUTCOMES

2021 - M.D. in Food Quality and Safety

- Saber evaluar la influencia de los componentes de los alimentos en la calidad de los mismos.
- Adquirir conocimientos sobre los procedimientos reglamentarios en la gestión de la calidad alimentaria
- 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.
- Conocer bases científicas de la nutrición y en relación con los últimos desarrollos y tendencias en este campo.
- Manejar con destreza las herramientas necesarias para evaluar los hábitos alimentarios.
- Proponer técnicas, estrategias y modelos de intervención nutricional en las situaciones fisiológicas especiales, así como en las patologías más prevalentes o relacionadas con la alimentación
- Reconocer las necesidades nutricionales de determinadas colectividades.
- 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 la investigación que en alimentación, nutrición y tecnología alimentaria demanda nuestra región.
- Obtener la cualificación necesaria para incorporarse a Departamentos de Investigación, Desarrollo e Innovación dentro de las empresas del sector agroalimentario.
- Manejar la metodología estadística y saber analizar problemas y aplicar las herramientas estadísticas más apropiadas en cada caso.

- Students should possess and understand foundational knowledge that enables original thinking and research in the field.
- 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.
- Elaborar y manejar los escritos, informes y procedimientos de actuación más idóneos para los problemas suscitados.
- 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.
- Know how to work in multidisciplinary teams reproducing real contexts and contributing and coordinating their own knowledge with that of other branches and participants.
- Participate in, lead and coordinate debates and discussions, be able to summarize them and extract the most relevant conclusions accepted by the majority.
- Use different presentation formats (oral, written, slide presentations, boards, etc.) to communicate knowledge, proposals and positions.
- Proyectar sobre problemas concretos sus conocimientos y saber resumir y extractar los argumentos y las conclusiones más relevantes para su resolución.
- 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.
- Obtener la formación necesaria para incorporarse a Departamentos de Investigación, Desarrollo e Innovación dentro de las empresas del sector agroalimentario.

LEARNING OUTCOMES

Knowing scientific basis of nutrition and Food Science in relation to recent developments and trends in this field.
Be able to assess the effect of the food components in the quality and functionality thereof.
Manage the tools needed to assess how the feeding behavior

Propose techniques, strategies and models of nutritional intervention in special physiological situations, as well as the most prevalent diseases or food related.
Recognize the nutritional needs of certain communities.
Ability to adapt the processes related to food to prevailing standards of food hygiene and quality management systems.

DESCRIPTION OF CONTENTS

1. Nutrition and Food Science

Bioavailability and biological effects of bioactive food components: Techniques in vitro.
Biological models "in vivo" for the evaluation of functional ingredients.
Food information: Regulations and characteristics of food labeling.
Nutrigenomics and nutrigenetics: new aspects of nutrition.
Importance of anthropometric measures.
Microbiota/host relationship.
Child nutrition: benefits of breast milk.
Nutrition intervention strategies in celiac disease.
Strategies for assessing diet.
Stylization of collective food menus.
Traditional foods and novel food: meat and meat with healthier profiles.
Valorization of byproducts/waste food.
Viticulture and winemaking in the denomination of origin.
Polyphenols as functional ingredients.
Plant Sterols: safety, technology and bioavailability.
Water analysis.
Validation of analytical methods and application to the assessment of food quality.

WORKLOAD

ACTIVITY	Hours	% To be attended
Theory classes	85,00	100
Attendance at events and external activities	18,00	0
Development of group work	20,00	0
Study and independent work	18,00	0
Readings supplementary material	15,00	0
Preparation of evaluation activities	4,00	0
Preparing lectures	40,00	0
Preparation of practical classes and problem	50,00	0
TOTAL	**250,00**	

TEACHING METHODOLOGY

Theoretical lectures
Resolution of practical cases
Seminars
Development of projects

Debate and led discussion
Conference of experts
Working groups

EVALUATION

English version is not available

REFERENCES

Basic

- Lecturas recomendadas por los profesores y profesoras disponibles en bases de datos de la UV o accesibles por internet.