COURSE SYLLABUS Food and Public Health

Academic Year: 2021/2022

Identification and characteristics of the course			
Code	502232	ECTS Credits	6
Course title (English)	**Food and Public Health**		
Course title (Spanish)	Alimentación y Salud Pública		
Degree programs	Degree in Food Science and Technology.		
Faculty/School	School of Agricultural Engineering		
Semester	Second (4th)	Character	Mandatory
Module	Nutrition and health		
Subject matter	Food and Public Health		

Lecturer/s			
Name	Room	E-mail	Web page
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Subject Area	Nutrition and Food Science.
Department	Animal Production and Food Science
Coordinator (Only if there is more than one lecturer)	**Alicia Rodríguez Jiménez**

Competencies

Basic Competencies

CB1 - That the students have demonstrated to possess and understand knowledge in an area of study that relied on those obtained from the general secondary education, and it is usually found at a level that, although supported by advanced textbooks, some aspects involving knowledge from the forefront of their field of study are also included.
CB2 - That students know how to apply their knowledge to their work or vocation in a professional way, and possess the competencies that are usually demonstrated through the elaboration and defense of arguments and the resolution of problems within their area of study.
CB3 - That students have the ability to collect and interpret relevant data (usually within their area of study) to make judgments including reflections on relevant social, scientific or ethical issues.
CB4 - That students can transmit information, ideas, problems, and solutions to both specialized and non-specialized audiences.
CB5 - That students have developed those learning skills necessary to undertake further studies with a high degree of autonomy.

General Competencies

CG3 - In the field of development and innovation of processes and products, ability to design and develop new processes and products to meet the needs of the market in the different aspects involved; evaluation of the degree of acceptability of these products in the market; establishment of the market production costs; assessment of the environmental risks of new production processes.
CG5 - In the field of community nutrition and public health, to be able to individually and collectively intervene in health promotion activities, contributing to the nutritional education of the population; to

promote the rational consumption of food according to healthy guidelines and to carry out epidemiological studies.
CG6 - In the field of collective catering, knowing how to manage collective catering services; proposing adequate feeding programs for the different groups; ensuring the quality and food safety of managed food; providing adequate training to personnel involved.

Cross Competencies

CT1 – Knowledge of ICT at a basic level.
CT2 – To provide knowledge and teaching-learning methodologies at different levels; collect and analyze existing information.
CT3 - Ability to effectively and efficiently solve problems, demonstrating the start of originality and self-direction.
CT4 - Capacity for critical reasoning, analysis and synthesis.
CT6 –Self-learning capacity and concern about learning and ongoing training.
CT7 - Knowledge of the principles and methods of scientific and technical research.
CT8 - Capacity for teamwork.
CT9 - Permanent concern about quality and the environment, the prevention of occupational risks and social and corporate responsibility.

Specific skills acquired from the Nutrition and Health module

CNS4: Ability to carry out health promotion and prevention activities related to food consumption.

Contents

Course outline

The course will allow students to understand the relationships between the natural fact and the cultural fact of food, to know the historical evolution of the food model and its socio-cultural meaning and the influence of social factors that govern eating behavior. In addition, it introduces the concepts of health, disease, epidemiology, as well as the structures and competencies of those people-in-charge of companies and administrations in public health and food safety. The developed course allows student to assimilate the foundations and general systems of disease prevention, health promotion and protection, as well as the etiologies and epidemiological factors that affect food-borne diseases, as well as their prophylaxis.

Objectives:
1. To know the differential fact of human nutrition, interrelationships between nature and culture.
2. To acquire a broad knowledge of eating, individual and social behaviors.
3. Knowledge of the concepts of public health and the prevention of risks related to food consumption habits and food safety.

Course contents

FOOD AND CULTURE BLOCK

Skills acquired: CB1, CB2, CB3, CB4, CB5, CG5, CG6, CT1, CT2, CT3, CT4, CT6, CT7, CT8, CT9, CECNS4
Learning outcomes: RA131, RA132

Title of topic 1: **Human Food and Historical Evolution**
Contents of topic 1: The natural fact and the cultural fact. Biological evolution, handling and manufacturing of tools. Fire, hunter and gatherer. Butcher or vegetarian. Biological, genetic, chemical, mechanical and food production, transformation and preservation technologies. Food in Roman times. Influence of the discovery of America. History of the Mediterranean diet. Food in developed countries. Concentration of industries. Food distribution chains and networks. The "Network" global commerce and small commerce.
Description of the practical activities on the topic: no practical content

Name of topic 2: **Sociocultural meaning of food**.
Contents of topic 2: Food and social communication. Social relationships and individual relationships. Emotional expressions of food. Parties, celebrations. Relations between diets and religious precepts. Food

and Christianity, Hinduism, Buddhism, Judaism, Islam. Food and relations with the environment. Natural food, organic food, organic food. Ethical or cultural models. Diets: the normal diet. Slimming diets. Healing diets. Magical diets. Absurd diets. Diets and beauty. Diet and sport. Food reality and food perception. Family and institutional meals protocol.
Description of the practical activities on the topic: no practical content

Title of topic 3: Communication. Eating behavior
Contents of topic 3: Written media: specialized magazines. Dissemination magazines, professional magazines. Audiovisual media: radio, television, Internet. Packaging. Advertising. Other means of communication. Eating behavior. Motivation and intake, Labeling and consumption of food. Development of likes and dislikes. Sources of variation in food preferences and attitudes.

Description of the practical activities on the topic: no practical content.

In addition to the lectures, the students will develop this block

THROUGH SEMINARS ECTS TUTORIES.

Firstly, groups of 2-3 students must choose a seminar. There will be 7 preparatory classes with each of the groups in addition to their autonomous work. During the preparation period there is an address through AVUEX and the scheduled face-to-face sessions. After the preparation phase, the group must present a final report and make a 30-minute presentation of its seminar. All the members of the group will necessarily present a part of the seminar. The topics of the seminars are as follows:

1. Influence of conservation methods on the evolution of food
2. Sociocultural influences on food
3. Food in Spain in Roman times
4. Medieval food in Spain and the spice trade
5. Food influence of the discovery of America
6. Evolution of Food from the Renaissance to the 21st century
7. Food and Christian religion
8. Food and Islamic religion. Judaism
9. Food and Hindu, Buddhist religion
10. Family and work and institutional meals protocols
11. Mediterranean diet
12. Food developed countries. US pattern
13. Vegetarian and derived diets
14. Advertising and food, media. Labelling.

PUBLIC HEALTH BLOCK
Skills acquired: CB1, CB2, CB3, CB4, CB5, CG3, CG5, CG6, CT1, CT2, CT3, CT4, CT6, CT7, CT9, CECNS4
Learning outcomes: RA133

Title of topic 4: **Concept of health and diseases.**
Contents of topic 4: Health promotion and disease prevention. Prevention levels. Public Health Law. Food characteristics. Food as vehicles of disease.
Description of the practical activities of the topic: Practices 2, 3.

Title of topic 5: **Basic concept of epidemiology.**
Contents of topic 5: Epidemiological methods: Descriptive, analytical, experimental, predictive. Applications.
Description of the practical activities of the topic: Practices 2, 3.

Title of topic 6: **Health, social and economic importance of zoonoses.** Contents of topic 6: Zoonosis classification. Factors. Assessment criteria. Plans to fight dseases. Description of the practical activities of the topic: Practices 2, 3.
Name of topic 7: **Sanitary and preventive importance of cleaning, disinfection, disinfection and pest control programs in food chain**. Contents of topic 7: Definitions and types of biocides. LDDD programs Description of the practical activities of the topic: Practices 2, 3.
Title of topic 8: **Epidemiology and prevention of waterborne diseases**. Contents of topic 8: Introduction. Epidemiological factors. Consumption diseases. Prevention. Description of the practical activities of the topic: Practices 1, 2, 3.
Title of topic 9: **Epidemiology and prevention of diseases transmitted by meat and meat derivatives**. Contents of topic 9: Introduction. Epidemiological factors. Consumption diseases. Prevention. Description of the practical activities of the topic: Practices 2, 3.
Title of topic 10: **Epidemiology and prevention of diseases transmitted by milk and derivatives.** Contents of topic 10: Introduction. Epidemiological factors. Consumption diseases. Prevention. Description of the practical activities of the topic: Practices 2, 3.
Title of topic 11: **Epidemiology and prevention of diseases transmitted by fish and fish derivatives**. Contents of topic 11: Introduction. Epidemiological factors. Consumption diseases. Prevention. Description of the practical activities of the topic: Practices 2, 3.
Title of topic 12: **Epidemiology and prevention of diseases transmitted by eggs and honey**. Contents of topic 12: Introduction. Epidemiological factors. Consumption diseases. Prevention. Description of the practical activities of the topic: Practice 2, 3.
Title of topic 13: **Epidemiology and prevention of diseases transmitted by bakery products, pastries, cakes and pastries.** Contents of topic 13: Introduction. Epidemiological factors. Consumption diseases. Prevention. Description of the practical activities of the topic: Practices 2, 3
Title of topic 14: **Epidemiology and prevention of diseases transmitted by canned and semi-preserved foods.** Contents of topic 14: Introduction. Epidemiological factors. Consumption diseases. Prevention. Description of the practical activities of the topic: Practices 2, 3.
Title of topic 15: **Epidemiology and prevention of diseases transmitted by dietary oils and fats**. Contents of topic 15: Introduction. Epidemiological factors. Consumption diseases. Prevention. Description of the practical activities of the topic: Practices 2, 3.
Title of topic 16: **Epidemiology and prevention of diseases transmitted by fruits, vegetables, vegetables and edible mushrooms.** Contents of topic 16: Introduction. Epidemiological factors. Consumption diseases. Prevention. Description of the practical activities of the topic: Practices 2, 3.
Title of topic 17: **Health problems derived from the use of additives, origin of food poisoning** Contents of the topic 17. Toxics of natural origin in food. Toxic due to incorrect handling. Use of food additives Description of the practical activities of the topic: Practices 2, 3.
PRACTICES TEMARIO PRÁCTICO
Title of the topic: **PRACTICE 1** Contents of topic 1: **Visit to the ETAP Santa Engracia**. This practice is carried out in the facilities where students can see all the steps that water follows in its treatment of purification. In addition, the main hazards related to Public health and preventive actions in each of the stages are described. The main determinations of the ETAP laboratory related to public health will be also explained. Bacterial cases or more frequent alterations and epidemiological cases. Skills acquired: CB1, CB2, CB3, CB4, CB5, CG5, CT1, CT2,CT4, CT6, CT9, CECNS4

Learning outcomes: RA132, RA133

Title of the topic: **PRACTICE 2**
Contents of topic 2: **Veterinary inspector Visit**
In this practice, an Inspector from the Extremadura Public Health Health Service will describe all actions in the field of Public health within the Badajoz area. He/she will describe the real actions, cases and all the diseases and parameters of Public Health of the target area, as well as all the health alerts of the last years.

Skills acquired: CB1, CB2, CB3, CB4, CB5, CG5, CT1, CT2,CT4, CT6, CT9, CECNS4
Learning outcomes: RA132, RA133

Title of the topic: **PRACTICE 3**
Contents of topic 3: **Practical clinical case**
In this practice, students will choose a clinical case, health alert, etc. from the official portals at European or national level or from websites or news. Students must describe it from the point of view of the Public Health, epidemiology, preventive or corrective actions that have not been carried out and for which said outbreak originated ... It covers real cases, and all the diseases and parameters of Public Health studied.

Skills acquired: CB1, CB2, CB3, CB4, CB5, CG5, CT1, CT2, CT3, CT4, CT6, CT9, CECNS4
Learning outcomes: RA132, RA133

Educational activities

Student workload (hours per lesson)		Lectures	Practical sessions				Monitoring activity	Homework
Lesson	**Total**	**L**	**HI**	**LAB**	**Lesson**	**Total**	**L**	**HI**
Block 1 (Topics 1)	28	9				1	1	17
Block 2 (Topics 2)	33	10				2	1	20
Block 3 (Topics 3)	23,5	6				1,5	1	15
Block 4 (Topics 4-18)	61,5	20,5				5		36
Evaluation	4	2						2
TOTAL	**150**	**47,5**	**0**	**0**	**0**	**9,5**	**3**	**90**

L: Lectures (100 students)
HI: Hospital internships (7 students)
LAB: Lab sessions or field practice (15 students)
COM: Computer room or language laboratory practice (30 students)
SEM: Problem-solving classes, seminars or case studies (40 students)
SGT: Scheduled group tutorials (educational monitoring, ECTS type tutorials)
PS: Personal study, individual or group work and reading of bibliography

Teaching Methodology

Resources and work methodology in classroom activities

1. For the exposition of each topic, computer media will be used, mainly through the use of a computer cannon. The most widely used computer program is going to be Power Point, although other types of programs may be used, such as exposing topics in web page format (iexplorer or mozilla). Prior to the exhibition, they will be provided with a summary of the topic that includes the main contents to be taught. These contents may be in PowerPoint, Word or any of them transformed into pdf format. In addition, they can rely on video tutorials of these. For its disposal, it will be deposited within each

thematic block in AVUEX and / or TEAMS, for which it will be necessary to briefly explain its use and how to register in the first weeks of class. In those cases, where it is possible, practical assumptions or relevant news that appear and that allow greater applicability of the topic will be analyzed.
2. The practices, if needed, will be carried out in the classrooms of the School of Agrarian Engineering and in the computer room, and in the case of visits to the institution visited outside the center. For its development, students will be distributed in groups with a maximum of 15 students if necessary.

Resources and work methodology in semi-face and non-face activities
1. The small group seminars will focus on the elaboration of a monographic work. The number of students per group will be 3-5. We will try to make groups with students chosen at random from those enrolled, although we will try to take into account those students with similar characteristics, taking into account those who work. Likewise, individual recommended readings will be made within the Public Health block, as well as the description and development of a real case, based on relevant news in this thematic block, for this in the additional bibliography are the links of new cases.
2. The Tutorials will allow an adequate monitoring of the work of the students, as well as their orientation in the elaboration of the monographic works by the created groups and through tools such as forums and comments either in person or through AVUEX or TEAMS. The face-to-face tutorials are intended to be done in available classrooms since they do not have specific places for this purpose and the offices are not large enough to accommodate 5 or 6 people or by videoconference of each group by TEAMS.

Resources and work methodology to develop transversal competences
For this, it is possible to use extension material, both bibliographic, and other documentation (ex: web pages) that allow developing other transversal or specific competences of the degree, ex: legal, scientific and technical advice to the food industry and consumers.

Learning outcomes

RA131. To know the differential fact of human nutrition, interrelationships between nature and culture.
RA132. To acquire a broad knowledge of eating, individual and social behaviors.
RA133. Knowledge of the concepts of public health and the prevention of risks related to food consumption habits and food safety

Assessment methods

CONTINUOUS ASSESSMENT

1. The exams will consist of short, test questions and true/false questions in which there will be a single true answer. Being able to be face-to-face on paper or questionnaires, or online questionnaires. It is necessary to obtain a grade equal to or greater than five to pass them.

2. In test-type questions, the wrong answers will subtract half the value of the question, that is, two wrong answers cancel out a correct one, and true/false questions four wrong answers cancel out a correct one. The value of the exams is 60% of the final grade (25% content seminars, 35% public health), where knowledge and skills will be assessed. Copying during an exam means automatically suspending the subject until the next call.

3. The partial exams will be eliminated until the July call if the grade is greater than 5 and they are not compensatory with each other. The non-presentation to any of the partial forces the student to examine himself of all the matter in the official summons. The content of the seminars requires a minimum of 4 to pass them.

4. In order to pass the course, it will be necessary to achieve a minimum of five points in the theoretical

exams, have completed the practices and their content forms as well as a seminar or original work and submitted a report on it.
5. If a whole group does not show up to the seminar presentation once their preparation is committed, the whole group will have a score of 0 points both in preparation and presentation, in case of an individual absence, they will have 0 points in their exposure note.

6. The deadline for delivery of the seminar will be a maximum of 10-15 days before the final exam (date stated in the presentation of the subject), if not, the suspension grade will appear in the minutes, regardless of the grade obtained in the theoretical exam, until the delivery of the same in the following call within the same course. These continuous assessment works and seminars have an assessment of 20% of the final grade (divided between preparation / memory (5%), exposition (5%) and recommended readings for each topic in class or online questionnaires (10%). The copy or plagiarism of any of the works means suspending the subject until the next call.

7. The qualification achieved in the work and / or seminars, if approved, will be kept until the academic year calls are exhausted, and neither partial nor theory of one course for another is saved.

8. The student's final grade will take into account other aspects related to the course of the subject, such as attendance at seminars and class, participation in classes, participation in the virtual classroom ... with a rating of 10% attendance and practices with another 10% divided between attendance (4%) and forms / evaluation of practices (6%).

9. The calls, grades and claim periods for the exams will be posted on the corresponding boards and through the virtual classroom of the subject in a timely manner as established by the regulations approved by the Governing Board and published by RESOLUTION of October 26, 2020, DOE nº 212 of November 3, 2020.

UNIQUE EVALUATION

1. To apply for this evaluation system, the student must fill in, sign and deliver the application form that is available in AVUEX for the subject in the corresponding section during the period established according to current regulations.
2. There will be an exam corresponding to the theoretical topics on the agenda and the seminar part, both tests may be oral or written, in which case they will follow criteria 1 and 2 of the continuous evaluation.

3. To pass the course, it will be necessary to achieve a minimum of five points in the exams of the theoretical content (whose score will be 50% of the final grade), seminar contents (whose score will be 35% of the final grade), as well as the practices (10% of the final grade). An original work will have to be delivered to replace the seminar and it will have a value of 5% of the final grade, the delivery dates and form being the one established in section 6 of continuous evaluation.

4. Attendance at practices is mandatory as well as the completion of the content form to pass the course. In case of not attending the practices, it is essential to take a practical exam that you must pass to pass the course.

5. The calls, grades and periods of claim of the exams will be exposed on the corresponding boards and through the virtual classroom of the subject in time and form as established by the regulations described in point 9 of the continuous evaluation.

Bibliography (basic and complementary)

Related to the subject of Food and Public Health, below I present the books on which the students will have greater access by being available in the UEX library: UEX library

BASIC BIBLIOGRAPHY

1. Antropología de la alimentación. J. Contreras Editorial Eudema.
2. Alimentación y cultura. Antropología de la cultura alimentaria. J. Cruz Cruz. Editorial Eunsa.
3. Alimentación y cultura. Perspectivas antropológicas. J. Contreras y Mabel Gracias. Editorial Ariel.
4. Medicina preventiva y salud pública (Piedrola)
5. Zoonosis (OMS)
6. El control de las enfermedades transmisibles comunes a hombre y animales (OMS)
7. Ecología microbiana de los alimentos (ICMSF)
8. Sanidad alimentaria (Roleto)
9. COMPLEMENTARY Intoxicaciones alimentarias de etiología microbiana (Sharp)
10. Epidemiología: teoría, investigación, práctica (Hernán)
11. Seguridad alimentaria integrada y salud pública (Buncic)

COMPLEMENTARY BIBLIOGRAPHY

12. El mono obeso. J. E. Campillo Álvarez. Editorial Crítica.
13. La especie elegida . J. L: Arsuaga e I. Martinez. Ediciones Temas de Hoy.
14. Historia de la gastronomía española. M. Martínez Llopis. Editorial La Val de Onsera.
15. Historia de la alimentación bajo la dirección de Jean Louis Flandrin y Mássimo Montanari. Ediciones Trea.
16. Toxicología alimentaria (Carmean)
17. Ciencia de los alimentos (Jerantet)
18. Legislación sanitaria y protección del consumidor (DOUE/BOE/DOE)
19. Esquemas de clases

Other resources and complementary materials

Prior to the exhibition, they will be provided with a summary of the topic that includes the main contents to be taught. These contents may be in PowerPoint, Word or any of them transformed into pdf format. In addition, they can rely on video tutorials of these. For its disposal, it will be deposited within each thematic block in AVUEX and TEAMS, for which it will be necessary to briefly explain its use and how to register in the first weeks of class. In those cases, where it is possible, practical assumptions or relevant news that appear and that allow greater applicability of the topic will be analyzed, which will be sent as recommended readings in AVUEX or in class, some to deliver assignments and punctuation and others only supportive to teaching.
In addition, scientific articles related to each of the topics will be provided to contrast scientific studies with the contents seen in class.

Virtual Resources:

For this, it is possible to use extension material, both bibliographic, and other documentation (ex: web pages) that allow developing other transversal or specific competences of the degree, ex: legal, scientific

and technical advice to the food industry and consumers. All this on the AVUEX virtual campus platform.

They will have all the information of practices, exam calls, grades
Also any congress related to the subject will be made available to the student, as well as interesting publications on topics related to the content seen in class.

In addition, other support tools provided by the UEX, such as ZOOM or TEAMS, may be used as teaching support tools together with the virtual classroom.