

COURSE PROGRAM

Academic Year: 2024/2025

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
Emilio Aranda Medina	D709 Valle del Jerte building	earanda@unex.es	
Alicia Rodríguez Jiménez	D710 Valle del Jerte building	aliciarj@unex.es	
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			
<p>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.</p> <p>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.</p> <p>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.</p> <p>CB4 - That students can transmit information, ideas, problems, and solutions to both specialized and non-specialized audiences.</p> <p>CB5 - That students have developed those learning skills necessary to undertake further studies with a high degree of autonomy.</p>			
General Competencies			
<p>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.</p> <p>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</p>			

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

CECNS4: 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.

OBJETIVOS DE DESARROLLO SOSTENIBLE CONTEMPLADOS

 <input type="checkbox"/>	 <input checked="" type="checkbox"/>	 <input checked="" type="checkbox"/>	 <input type="checkbox"/>	 <input type="checkbox"/>	 <input checked="" type="checkbox"/>
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 <input checked="" type="checkbox"/>	 <input type="checkbox"/>	 <input type="checkbox"/>	 <input type="checkbox"/>	 <input type="checkbox"/>	 <input type="checkbox"/>

Course contents

FOOD AND CULTURE BLOCK

Skills acquired: CB1, CB2, CB3, CB4, CB5, CG3, CG5, CG6, CT1, CT2, CT3, CT4, CT6, CT7, CT8, CT9, CECNS4

Learning outcomes: RA131, RA132
SDGs: 2, 3

LECTURES

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

SEMINARS ECTS TUTORIES.

Firstly, groups of 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 AVU EX 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:

Title of topic 3: **Food in Spain in Roman times**

Contents of topic 3: Historical background. Establishment of Roman habits in Hispania: day by day. Meals of the day Roman habits: customs at the table, rooms where meals were held, social classes and food. Crockery/cooking utensils. Food and typical dishes.

Description of the practical activities of the topic: without practical contents.

Title of topic 4: **Medieval food in Spain and the spice trade**

Contents of unit 4: Beginning of the Middle Ages (s.V-XI): Roman, Germanic-Visigothic and Arab influence. Middle Ages: s- XI-XV: Al-Andalus. Typical foods in each period. Agriculture systems: food production. Relationship between social classes and typical diet of each of them. Spices XI century: silk route. Distribution of spices in each continent and types. Various medicinal uses. Preservatives. flavorings Description of the practical activities of the topic: without practical contents.

Title of topic 5: **Dietary influence of the discovery of America**

Contents of topic 5: Introduction. Food. Others: tobacco, etc. Dietary influence and changes in food: Diffusion throughout Europe. Changes in food preparation.

Description of the practical activities of the topic: without practical contents.

Title of topic 6: **Evolution of food from the Renaissance to the 21st century**

Contents of topic 6: Renaissance. Influence of the discovery of America. Social classes: typical foods, customs. The Medici. First restaurants (18th century). Contemporary age. Gastronomic books. Menu cards: evolution. Chef figure. Food today: precooked and fast food.

Description of the practical activities of the topic: without practical contents.

Title of topic 7: **Food and Christian religion**

Contents of topic 7: Introduction. Orthodox, Catholics and Protestants: similarities and differences, fasting, prohibited foods and permitted foods. Symbolic meals of Holy Week. Typical Easter meals in different parts of the world. Typical Easter sweets and desserts.

Description of the practical activities of the topic: without practical contents.

Title of topic 8: **Food and Islamic and Judaism religion**

Contents of topic 8: Judaism: Introduction, food and Judaism, allowed and not allowed foods, sacrifice protocols, table manners, Jewish celebrations and their gastronomy, typical dishes. Islam: Introduction, allowed and not allowed foods, slaughter protocols, eating habits, table manners, Islamic celebrations, Ramadan, typical recipes.

Description of the practical activities of the topic: without practical contents.

Title of topic 9: **Food and Hindu and Buddhist religion.**

Contents of topic 9: Hinduism: Concept, fundamentals of Hinduism, characteristics of Hindu cuisine, culinary preparation, typical dishes, reasons to be a vegetarian. Buddhism: Concept, characteristics of Buddhist cuisine, eating habits, typical dishes, forbidden or rarely consumed foods, Buddhism and vegetarianism.

Description of the practical activities of the topic: without practical contents.

Title of topic 10: **Food in developed countries. US pattern.**

Contents of topic 10: Background. Evolution of the percentage of overweight and obesity. Nutritional guides. The basic 7. The wheel of foods. The food pyramids. My plate. Mediterranean pyramid. Current pattern of food consumption. Impact/disease-related studies. Action measures/campaigns.

Description of the practical activities of the topic: without practical contents.

Title of topic 11: **Mediterranean diet.**

Contents of topic 11: Introduction: concept of Mediterranean diet. Historical-cultural perspective. Changes produced in food consumption patterns. Mediterranean diet today. Bases of the Mediterranean diet. Food consumption according to season. Benefits of the foods of the Mediterranean diet.

Description of the practical activities of the topic: without practical contents.

Title of topic 12: **Vegetarian diets and derivatives.**

Contents of topic 12: History and epidemiology. Lactovegetarianism. Ovovegetarians and other raw eaters. fruitarianism Granivorianism. Reasons: ethical, medical and religious. Consequences: advantages and disadvantages.

Description of the practical activities of the topic: without practical contents.

Title of topic 13: **Protocols, family and work and institutional meals.**

Contents of topic 13: Origin of the protocol. Business, institutional and family meals. How to dress the table guests. Menu selection. Ways to serve the table. Ways to behave at the table.

Description of the practical activities of the topic: without practical contents.

Title of topic 14: **Advertising and food, media.**

Contents of topic 14: Introduction. Influence of advertising. Large chains: their products and articles. Placement and distribution of items in supermarkets. Advertising campaigns. Labelling. Nutriscore. Current trends: influence of advertising on diseases related to nutrition.

Description of the practical activities of the topic: without practical contents.

PUBLIC HEALTH BLOCK

Skills acquired: CB1, CB2, CB3, CB4, CB5, CG3, CG5, CG6, CT1, CT2, CT3, CT4, CT6, CT7, CT9, CECNS4

Learning outcomes: RA133

SDGs: 2, 3, 6, 12, 13

<p>Title of topic 15: Concept of health and diseases. Public Health Surveillance.</p> <p>Contents of topic 15: Health promotion and disease prevention. Prevention levels. Public Health Law. Food characteristics. Food as vehicles of disease.</p> <p>Description of the practical activities of the topic: Practices 2, 3.</p>
<p>Title of topic 16: Epidemiology.</p> <p>Contents of topic 16: Epidemiological methods: Descriptive, analytical, experimental, predictive. Applications.</p> <p>Description of the practical activities of the topic: Practices 2, 3.</p>
<p>Title of topic 17: Health, social and economic importance of zoonoses.</p> <p>Contents of topic 17: Zoonosis classification. Factors. Assessment criteria. Plans to fight diseases.</p> <p>Description of the practical activities of the topic: Practices 2, 3.</p>
<p>Title of topic 18: Sanitary and preventive importance of cleaning, disinfection, disinfection and pest control programs in food chain.</p> <p>Contents of topic 18: Definitions and types of biocides. LDDD programs</p> <p>Description of the practical activities of the topic: Practices 2, 3.</p>
<p>Title of topic 19: Epidemiology and prevention of waterborne diseases.</p> <p>Contents of topic 19: Introduction. Epidemiological factors. Consumption diseases. Prevention.</p> <p>Description of the practical activities of the topic: Practices 1, 2, 3.</p>
<p>Title of topic 20: Epidemiology and prevention of diseases transmitted by meat and meat derivatives.</p> <p>Contents of topic 20: Introduction. Epidemiological factors. Consumption diseases. Prevention.</p> <p>Description of the practical activities of the topic: Practices 2, 3.</p>
<p>Title of topic 21: Epidemiology and prevention of diseases transmitted by milk and derivatives.</p> <p>Contents of topic 21: Introduction. Epidemiological factors. Consumption diseases. Prevention.</p> <p>Description of the practical activities of the topic: Practices 2, 3.</p>
<p>Title of topic 22: Epidemiology and prevention of diseases transmitted by fish and fish derivatives.</p> <p>Contents of topic 22: Introduction. Epidemiological factors. Consumption diseases. Prevention.</p> <p>Description of the practical activities of the topic: Practices 2, 3.</p>
<p>Title of topic 23: Epidemiology and prevention of diseases transmitted by eggs and honey.</p> <p>Contents of topic 23: Introduction. Epidemiological factors. Consumption diseases. Prevention.</p> <p>Description of the practical activities of the topic: Practice 2, 3.</p>
<p>Title of topic 24: Epidemiology and prevention of diseases transmitted by bakery products, pastries, cakes and pastries.</p> <p>Contents of topic 24: Introduction. Epidemiological factors. Consumption diseases. Prevention.</p> <p>Description of the practical activities of the topic: Practices 2, 3</p>
<p>Title of topic 25: Epidemiology and prevention of diseases transmitted by canned and semi-preserved foods.</p> <p>Contents of topic 25: Introduction. Epidemiological factors. Consumption diseases. Prevention.</p> <p>Description of the practical activities of the topic: Practices 2, 3.</p>
<p>Title of topic 26: Epidemiology and prevention of diseases transmitted by dietary oils and fats.</p> <p>Contents of topic 26: Introduction. Epidemiological factors. Consumption diseases. Prevention.</p> <p>Description of the practical activities of the topic: Practices 2, 3.</p>
<p>Title of topic 27: Epidemiology and prevention of diseases transmitted by fruits, vegetables, vegetables and edible mushrooms.</p> <p>Contents of topic 27: Introduction. Epidemiological factors. Consumption diseases. Prevention.</p> <p>Description of the practical activities of the topic: Practices 2, 3.</p>
<p>Title of topic 28: Health problems derived from the use of additives, origin of food poisoning</p> <p>Contents of the topic 28: Main poisonings from the point of view of Public Health.</p> <p>Description of the practical activities of the topic: Practices 2, 3.</p>
<p>PRACTICES</p>

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 activities				Monitoring activity	Homework
Lesson	Total	L	HI	LAB	CO M	SE M	SGT	PS
1	6,75	2,25					1	3,5
2	6,25	2,25						4
3	6,5	2					1	3,5
4	4,75	1,5						3,25
5	5	1,75						3,25
6	6	2						4
7	4,5	1,5						3
8	4,5	1,5						3
9	4,5	1,5						3
10	6,5	2,25					1	3,25
11	4,75	1,5						3,25
12	3	1						2
13	3	1						2
14	4,5	1,5						3
15	8,5	3						5,5
16	8	2,5						5,5
17	6	2						4

18	6	2						4
19	5	1,5						3,5
20	4,5	1,5						3
21	4,5	1,5						3
22	3,75	1,5						2,25
23	1,25	0,5						0,75
24	5	2						3
25	2,5	1						1,5
26	1,25	0,5						0,75
27	5,5	2						3,5
28	1,25	0,5						0,75
Prácticas								
1	5,5			3,5				2
2	4,5			3				1,5
3	4,5			3				1,5
Evaluación	4	2						2
TOTAL	150	47,5	0	0	0	9,5	3	90

L: Lectures (85 students)

HI: Hospital internships (7 students)

LAB: Laboratory or field practices (15 students)

COM: Computer room or language laboratory practices (20 students)

SEM: Problem classes or 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

1. Final evaluation of knowledge: Theoretical contents (35%) seminar contents (25%) and practical contents (2.5%)
2. Continuous evaluation: conducting seminars and recommended readings (25%)
3. Assistance with the use of face-to-face activities: 12.5% for attendance at classes and practices.

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 1/3 the value of the question, that is, three 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 25% of the final grade (divided between preparation / memory (10%), 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 5% attendance and practices with another 10% divided between attendance (2,5%) and forms / evaluation of practices (2,5%).

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 (Roletto)
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. Martínez. 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 Máximo 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.