

**COURSE DATA****DATA SUBJECT****Code:** 33994**Name:** Bases for Public Health**Cycle:** Undergraduate Studies**ECTS Credits:** 4.5**Academic year:** 2025-26**STUDY (S)**

Degree	Center	Acad. year	Period
1103 - Degree in Food Science and Technology	Facultat de Farmàcia i Ciències de L'alimentació	3	Sin determinar, Second quarter

SUBJECT-MATTER

Degree	Subject-matter	Character
1103 - Degree in Food Science and Technology	Public health bases	COMPULSORY

COORDINATION

SORLI GUEROLA JOSE VICENTE

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SUMMARY

To acquire the basic concepts on the health and determinants of the health, levels of prevention and actions of protection and promotion of the health, and its link with the Sustainable Development Objectives (SDO). To know the epidemiology and its application in the studies in the field of the Science and Technology of the Food. To identify the key aspects of the promotion of the health and the education for the health, fundamentally related to the field of the Science and Technology of the Food, as well as to know the principal health programs in the different stages of the life. To know the epidemiology of the principal contagious and not transmissible diseases, its prevention and control, principally, in relation to the technology of the food. To know the relation between the environment and the health. To know the sanitary Spanish system, services and management

PREVIOUS KNOWLEDGE**RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE**

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

OTHER REQUIREMENTS



Knowledge of the subjects given during the first two years of degree, fundamentally Statistics, Microbiology and Nutrition, Chemical Analysis, Parasitology, as well as the basic matters of Physics, Chemistry and, Biochemistry

COMPETENCES / LEARNING OUTCOMES

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Acquire knowledge of the epidemiological method and its application to the field of food.

Acquire knowledge on epidemiology and prevention of communicable and non-communicable diseases.

Asesorar científica y técnicamente a la industria alimentaria y a los consumidores.

Capacidad de interpretar datos relevantes.

Carry out staff training.

Develop skills to undertake further study.

Know about health care planning and organisation.

Know about planning and prevention of occupational risks.

Know and assess the determinants of health.

Know health promotion and disease prevention strategies.

Know the basic concepts of health and public health.

Know the methods and means of health education.

Know the relationship between environment and health.

Know the techniques and applications of environmental health and industrial hygiene in the field of food industry.

Manage by-products and waste.

Poseer y comprender los conocimientos en el área de Ciencia y Tecnología de los Alimentos.

Saber aplicar esos conocimientos al mundo profesional, contribuyendo al desarrollo de los Derechos Humanos, de los principios democráticos, de los principios de igualdad entre mujeres y hombres, de solidaridad, de protección del medio ambiente y de fomento de la cultura de la paz.

The ability to transmit ideas, problems and solutions within the study area of modern languages and their literatures.



DESCRIPTION OF CONTENTS

1. General Concepts in Public Health

Unit 1: Concept of Health, Public Health, Determinants of the Health, and its link with the Sustainable Development Objectives.

Unit 2: Sanitary Demography

Unit 3: Food and Health.

Unit 4: Lifestyle as determinants of health: Tobacco, Physical exercise. Education for Health

2. Epidemiological studies

Unit 5: Concepts and uses of the Epidemiology. Types of epidemiological studies. Measures of frequency.

Unit 6: Descriptive Studies: Cross-sectional studies and ecological studies.

Unit 7: Studies of cases and controls.

Unit 8: Studies of cohorts.

Unit 9: Studies of intervention.

Unit 10: Measures of association and impact.

Unit 11: Errors in the epidemiological studies: random and Systematic errors

Unit 12: Systematic Reviews and Metanalysis.

Unit 13: Evaluation of diagnostic tests. Sensibility, Specificity and Predictive Values. Curves ROC.

Unit 14: Genomic Epidemiology. Nutritional epidemiologic.

3. Environment and health

Unit 15: Environmental Health and Food industry, and its link with the related Sustainable Development Objectives.

Unit 16: Sterilization and disinfection. Physical and chemical methods. Principal technologies.

Disinfestations and rat-extermination. Pesticides: characteristics

4. Infectious diseases and Chronic diseases

Unit 17: General Epidemiology of the contagious diseases. Concept of control and eradication. Immunization

Unit 18: Diseases of intestinal transmission. Epidemiology and prevention.

Unit 19: Diseases of respiratory transmission. Epidemiology and prevention.

Unit 20: Diseases of transmission for contact. Concept. Classification.

Epidemiology and prevention of the hepatitis and AIDS.

Unit 21: Diseases transmitted by arthropods and emergent Epidemiology and Prevention.

Unit 22: Chronic diseases. Epidemiology and prevention especially related to the food.

Unit 23: Epidemiology and prevention of the cardiovascular diseases.

Unit 24: Epidemiology and prevention of the cancer.

Unit 25: Epidemiology and prevention of the obesity and diabetes. Concept

of obesity. Concept of diabetes. Types. Descriptive epidemiology. Factors of risk and prevention of the



diabetes

5. Health systems and health services

Unit 26: Information systems.

Unit 27: Spanish health system

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Tutorials	1,00
Theory	34,00
Seminar	2,00
Computer classroom practice	5,00
Total hours	42,00

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	12,50
Independent study and work	55,00
Preparation of lessons	0,00
Preparation for assessment activities	0,00
Resolution of case studies	0,00
Total hours	67,50

TEACHING METHODOLOGY

The theoretical contents will be given across lessons composed in a dialogue with the students promoting the participation of the student across questions

These theoretical meetings will have the complement of the tutorships (4 hours) and virtual tutorships.

During the development of the classes, the contents of the subject will be linked to the Sustainable Development Objectives of the 2030 Agenda, with the explanation of these concepts and examples of their applications. This will address the importance of these concepts with the goal that students acquire the



knowledge and skills to understand the relevance of these SDO and their relationship with the subject.

The coordinated seminars carried out in this subject will promote the relationship of the thematic developed in the seminars with the Agenda of the Sustainable Development Objectives, assessing the consideration of the gender and social perspective inclusion, as well as inequalities and other approaches considered in that agenda.

In the practical meetings in the informatic lessons, student must use methodology based on learning by resolution of problems. The work will be promoted in group that will allow the development of capacities of communication and oral coherent and logical expression.

EVALUATION

- a) Accomplishment of a test written to guarantee the knowledge and comprehension of the minimal theoretical and practical contents established for the matter (70%). The exam will be a test with 40 questions. Each question answered correctly will be scored with 0.2 points, and each question answered incorrectly will subtract 0.05 points. In this activity, the student must get a minimal qualification (5/10) in order to pass the subject.
- b) Evaluation of the work realized in coordinated seminars (10%).
- c) Evaluation of the informatic practice lessons (5%). In the informatic practices, the capacity for the resolution of the raised problems will be evaluated.
- d) Evaluation of the work realized during the tutorships and other activities realized during the class (15 %).

The activities of continuous assessment, which in this subject are practices, tutorials and seminars, are of MANDATORY ATTENDANCE and, therefore, NOT RECOVERABLE, in accordance with the provisions of Article 6.5 of the Regulation of Evaluation and Qualification of the UV for Bachelor and Master degrees. If it is not possible to attend any of these activities for justified reasons, it must be communicated in advance. In this way, the person in charge of the subject may assign the student a session in another group. For repeating students, attendance at tutorials or coordinated seminars will not be necessary, keeping the note of said attendance from the previous year.



Evidence of copying or plagiarism in any of the assessable tasks will result in failure to pass the subject and in appropriate disciplinary action being taken. Please note that, in accordance with article 13. d) of the Statute of the University Student (RD 1791/2010, of 30 December), it is the duty of students to refrain from using or participating in dishonest means in assessment tests, assignments or university official documents.

In the event of fraudulent practices, the "**Action Protocol for fraudulent practices at the University of Valencia**" will be applied (ACGUV 123/2020):

<https://www.uv.es/sgeneral/Protocols/C83sp.pdf>

REFERENCES

Básicas

Argimón Pallas JM, Jiménez Villa J. Métodos de investigación clínica y epidemiológica. 4ª edición. Barcelona: Elsevier, 2013.

Serra-Majem L, Aranceta J. Nutrición y Salud Pública. Métodos, bases científicas y aplicaciones. 2ª ed. Barcelona: Elsevier-Masson, 2006.

Hernández-Aguado I, Lumbreas-Lacarra B. Manual de Epidemiología y Salud Pública para grados en ciencias de la Salud. 3ª edición. Madrid: Medica Panamericana, 2018.

Gustavo Malagón-Londoño, Jairo Reynales-Londoño. Salud Pública. Conceptos, Aplicaciones y Desafíos (3ª Edición). Medica Panamericana, 2020.

Complementarias:

Martínez-González MA, Sánchez-Villegas A, Toledo Atucha E, Faulín Fajardo J. (2020). Bioestadística amigable. 4ª edición. Elsevier. ISBN: 9788491134077

Fernández-Créhuet Navajas J, Gestal Otero J, Domínguez Rojas V, Delgado Rodríguez M, Bolumar Montrull F, Herruzo Cabrera R, Serra Majem L, Rodríguez Artalejo F (dirs.). Medicina Preventiva y Salud pública. 12ª ed. Barcelona: Elsevier-Masson, 2016.

Royo Bordonada MA. Nutrición en Salud Pública. Madrid: Escuela Nacional de Sanidad, Instituto de Salud Carlos III, 2017.