COURSE DATA

DATA SUBJECT

Code: 34091
Name: Public Health
Cycle: Undergraduate Studies
ECTS Credits: 9
Academic year: 2026-27

STUDY (S)

Degree	Center	Acad. year	Period
1201 - Degree in Pharmacy	Facultat de Farmàcia i Ciències de l'alimentació	4	Annual
1211 - Double Degree in Pharmacy and Human Nutrition and Dietetics	Facultat de Farmàcia i Ciències de l'alimentació	5	Annual

SUBJECT-MATTER

Degree	Subject-matter	Character
1201 - Degree in Pharmacy	Public health	COMPULSORY
1211 - Double Degree in Pharmacy and Human Nutrition and Dietetics	Asignaturas obligatorias del PDG Farmacia-Nutrición Humana y Dietética	COMPULSORY

COORDINATION

BARRAGAN ARNAL ROCIO

SUMMARY

Public Health in the Degree in Pharmacy is a subject whose mission is to provide the future graduate with sufficient knowledge to develop their activity in the field of health promotion and disease prevention in the population at an individual and collective level. . Students will be introduced to the epidemiological method, knowledge of the environment and its relationship with health, epidemiology and prevention techniques for chronic and communicable diseases and knowledge of the international, European and Spanish health system, as well as as in the techniques used for education for the health of the population. The subject also works to implement the Sustainable Development Goals (SDG) in teaching within the framework established by the UV.

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

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

OTHER REQUIREMENTS

Having studied basic subjects (statistics, chemistry, biochemistry and physiology) is recommended, as well as the microbiology, immunology and parasitology course subjects. Having acquired basic knowledge of pharmacology and pharmaceutical knowledge is also recommended.

COMPETENCES / LEARNING OUTCOMES

1201 - Degree in Pharmacy

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

Acquire knowledge of healthcare organisation: Healthcare systems. International public health.

Acquire knowledge of planning and prevention of occupational risks.

Acquire knowledge of the epidemiological and scientific methods, pharmacoepidemiology, pharmacovigilance, clinical trials and scientific evidence studies.

Act with autonomy in learning, making informed decisions in different contexts, issuing judgements based on experimentation and analysis, and transferring knowledge to new situations.

Collaborate effectively in work teams, assuming responsibilities and leadership roles and contributing to collective improvement and development.

Contribute to the design, development and implementation of solutions that respond to social demands, taking into account the Sustainable Development Goals as a reference.

Demonstrate critical and self-critical thinking in the field of the degree programme, considering aspects such as professional ethics, moral values and the social implications of the different activities carried out.

Have knowledge on healthcare planning.

Intervene in health promotion and disease prevention activities in the individual, family and community spheres, with a comprehensive and multiprofessional vision of the health-disease process.

Know and assess the determinants of health.

Know and understand, within the field of the degree programme, gender inequalities in society; integrate different needs and preferences based on sex and gender into the design of solutions and problem solving.

Know basic concepts of health and public health.

Know how to communicate effectively, both orally and in writing, adapting to the characteristics of the situation and the audience.

Know how to use strategies for promoting health and preventing disease.

Know methods and means of health education.

Know techniques and applications in the field of environmental health, sanitation and industrial hygiene, mainly in the pharmaceutical industry.

Know the most appropriate pharmacotherapy for each clinical situation, applying clinical guidelines with maximum scientific evidence.

Know the relationship between environment and health.

Module: Legislation and Social Pharmacy. Know the foundations of public health, intervene in activities of health promotion and disease prevention at individual and collective levels and contribute to health education, recognising the determinants of heal

Possess and understand knowledge in the different areas of study included in pharmacist training.

Propose creative and innovative solutions to complex situations or problems within the field of knowledge, to respond to diverse professional and social needs.

DESCRIPTION OF CONTENTS

1. THE COURSE SUBJECT CONCEPT. THE EPIDEMIOLOGICAL METHOD

Historical evolution and current situation of Public Health Fundamental sections that comprise it. Health and disease as an ecological phenomenon.
Epidemiology. The epidemiological method. Uses of epidemiology.
Descriptive epidemiology. Sources of health information. Health Information System (S.I.S.).
Demography. Basic components. Sources of demographic information. Population calculations. Population movements. Studies of the Spanish population.
Health statistics. Types of study design in epidemiology. Ecological studies. Cross-sectional studies. Case-control studies.
Community health measures. Health indicators.
Analytical epidemiology. Types of analytical studies (case-control studies).
Cohort studies.
Experimental epidemiology. Clinical trials. Trials in the community. Causality in epidemiology.
Biases in epidemiology. Evaluation of diagnostic tests.

2. THE NATURAL ENVIRONMENT AND HEALTH

Ecology and human health. Environmental impact evaluation.
Environmental health. its current importance.
Water as a hygienic factor. Physicochemical and biological criteria for potability of drinking water. Water supplies.
Problems of water for public consumption in the Valencian Autonomous Community.
Sewage water. The problem of wastewater in the Valencian Autonomous Community.

Solid urban waste. The problems of solid waste in the Valencian Autonomous Community.
Industrial waste. Production and management. Industrial waste treatment facilities.
Pollution of the atmosphere. Its importance in Public Health.
Climate and air pollution. Macroecological effects of air pollution.
Surveillance networks in air pollution.
Pollution of continental and marine waters.
Urbanism and health.
Health problems caused by physical pollutants. Noise and radiation.

The availability of water and its sustainable management and sanitation. Social responsibility and linkage with SDGs 1, 3, 6, 8, 9, 11, 12, 13, 14, 15 and 17 of environmental policies. Role of the pharmacist in this context.

3. FOOD AND HEALTH

Food and public health. Food and nutrition surveys.
Food safety. Sanitary control in its production and distribution. Role of sustainable agriculture. Food security and improved nutrition. National and international food strategies linked to sustainable development.

Relationship of the content with SDG 2 and 3.

4. PHARMACOVIGILANCE AND DRUG DEPENDENCY

Pharmacovigilance.
Drug addiction. Health and social aspects. Preventive guidelines.

Relationship with SDGs 3, 5 and 10.

5. HEALTH CARE EDUCATION

Education for health. The pharmacist as a health educator. Role of the pharmacist in consultation and intersectoral roundtables to address health problems in the community.

Relationship of the content with SDG 3, 4, 11 and 17.

6. PREVENTING TRANSMISSIBLE DISEASES

Epidemiology of communicable diseases. Its control and surveillance.
Respiratory and airborne diseases. Acute respiratory infections (ARIs), tuberculosis, meningitis and legionellosis.
Diseases transmitted by contact. Tetanus, hepatitis B and C.
Epidemiology and prevention of sexually transmitted infections.
Waterborne and foodborne diseases.
Vaccination programs: epidemiological and preventive aspects.
Epidemiology of Human Acquired Immunodeficiency Syndrome.
Epidemiology of zoonoses and vector-borne diseases.
Sanitation and disinfection, disinsection and deratization.
Healthcare-associated infections.

Identification of health risks and guarantee of a healthy life at all ages. Relationship of the content with SDGs 3, 4, 6, 10 and 12.

7. PREVENTION OF NON-COMMUNICABLE DISEASES

Epidemiology and prevention of cardiovascular diseases.
Epidemiology of chronic lung disease.
Cancer epidemiology and prevention.
Epidemiology and prevention of trauma.
Epidemiology and prevention of osteoarticular diseases.
Epidemiology and prevention of chronic kidney disease.
Epidemiology and prevention of alcohol-related problems.
Public health and tobacco.
Epidemiology and prevention of neurodegenerative diseases and mental illnesses.
Prevention of endocrine and metabolic diseases: diabetes, nutritional deficits and obesity.
Prevention of caries and periodontal disease.
Occupational health. Forms of intervention.

Identification of health risks and guarantee of a healthy life at all ages. Forms of intervention. Intervention with a gender perspective. Relationship of the content with SDGs 1, 2, 3, 4, 5, 10 and 13.

8. PLANNING AND MANAGING HEALTH SERVICES

Main healthcare models. Integrated healthcare. Health care levels. Health planning.
Health organization in Spain and in the Valencian Autonomous Community. Hospital organization.
The health organization in catastrophic or emergency situations.
International Sanitary Organization. World Health Organization (WHO) and other related organizations.

Global health.

Strategies to reduce inequality within and between countries. Relationship of the content with SDG 3, 4, 10, 16 and 17.

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Tutorials	4,00
Theory	66,00
Seminar	10,00
Computer classroom practice	10,00
Total hours	**90,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	0,00
Independent study and work	0,00
Preparation of lessons	135,00
Preparation for assessment activities	0,00
Resolution of case studies	0,00
Total hours	**135,00**

TEACHING METHODOLOGY

Teaching is based on the individual study of the topics developed in the theoretical classes reinforced by computer practices, aimed mainly at the knowledge of computer tools and programs that allow the creation of databases and their subsequent epidemiological analysis, and classroom practices in those that introduce the student to the study of the environment and its relationship with health, teaching them how to establish health surveillance systems, how situations are evaluated and data are interpreted.

The student will also have tutorials to delve into the most outstanding and current aspects of this subject and to solve doubts in a personalized way, specifically:

- Theoretical class: these are face-to-face classes aimed at the presentation by the teacher of the most important concepts and contents of each topic in order for the student to acquire knowledge related to the subject, according to the syllabus. Student participation will be encouraged by introducing collaborative activities in the classroom and work to be done during study time in different options (text, video, etc.)

- Tutorials: students will attend it in small groups. In them, the teacher will evaluate the learning process of

the students in a globalized way, likewise, the tutorials will serve to solve all the doubts that may have arisen throughout the classes and will guide the students on the most useful working methods for the resolution of the problems that may arise in the study of this matter. The teacher will be able to raise specific questions and themes according to the needs of the students for their development.

- Seminar: the seminars will be used to promote individual and group work, as well as the improvement of oral presentation, by carrying out theoretical or practical work that complements the training that is acquired in the classes. Complementary activities of different types will also be carried out (case studies, preparation of scientific bibliographic searches, discussion of current issues related to the subject and related to sustainable development.

- Practical computer lab classes: They will be held in the computer room. These are practices related to solving practical cases through the use of computer systems. They are intended to consolidate theoretical knowledge, through the practical application of the same. The teaching staff will present the objectives, report on the handling of the material, supervise the performance of the work and help in the interpretation of the results.

The contents programmed in the computing practices:

• Critical reading of scientific articles using Public Health information bases.

• Evaluation of epidemiological designs in different Public Health issues using scientific search engines, assessing their design and gender approach, social perspective, social inequalities, sustainability... in order to extrapolate the results to different populations / communities. Within the evaluation, their incorporation of the SDGs will also be assessed.

• Study of practical cases of epidemiology problems (descriptive and analytical): exploratory data analysis, graphic and numerical description of a variable, bivariate relationships, inferential analysis in a population, studies of proportions and tests used.

• Evaluation of diagnostic tests (sensitivity, specificity and predictive values)

EVALUATION

The assessment corresponding to the work carried out in the seminars will contribute 5% to the final mark, with attendance being compulsory. Both the content of the work and its presentation will be assessed.

Participation in practical classes, attendance of which is compulsory, will be assessed with a maximum of 5% of the final mark. The possibility of a practical report will be considered.

The assessment corresponding to the work carried out in the tutorials and participation in them will contribute 5% to the final mark, with attendance being compulsory. All of this will be assessed together with the final theoretical exam.

All of this will be evaluated together with the final theoretical exam.

The continuous assessment activities, 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. In the event that, for justified reasons, it is not possible to attend any of these activities, it must be communicated sufficiently in advance. In this way, the person in charge of the subject may assign the student a session in another group.

Repeating students will have their marks for practicals retained but not for tutorials or seminars.

Attendance and participation in theory classes will be taken into account for 5% of the final mark.

The acquisition of knowledge will be assessed by means of a written test of the theoretical and practical contents. In order to pass the 1st partial exam, it is necessary to obtain a grade of 5.0 or higher in the written test. The score obtained together with the theoretical exam of the 2nd partial exam, which must meet the same requirements, will be weighted at 80% of the final grade. It will be necessary to obtain 50% of the maximum score of this written test to add the evaluations corresponding to the seminar, practical classes and tutorials.

Students who have passed the 1st part-time exam and do not pass the 2nd part-time exam in the 1st session may only sit the 2nd part-time exam or the final exam in the 2nd session.

In the event that the student has completed the activities of the course and does not sit the final exam, he/she will be recorded:

As "NOT PRESENTED" (NP) in the FIRST call.

But as "PRESENTED" in the SECOND sitting, with the corresponding grade.

Copying or plagiarism of any assignment that forms part of the assessment will result in the impossibility of passing the subject, and the student will then be subject to the appropriate disciplinary procedures. Please note that, in accordance with article 13. d) of the University Student Statute (RD 1791/2010, 30 December), it is the duty of a student to refrain from using or cooperating in fraudulent procedures in assessment tests, in the work carried out or in official university documents.

In the case of fraudulent practices, the procedure will be as determined by the "Protocol of action against fraudulent practices at the University of Valencia" (ACGUV 123/2020): https://www.uv.es/sgeneral/Protocols/C83sp.pdf

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