

Degree	Type	Year
2502442 Medicine	OB	5

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Teachers

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Teaching groups languages

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Prerequisites

It is essential to have sufficient knowledge of Biostatistics (first course), and especially Clinical Epidemiology (third course).

Objectives and Contextualisation

The subject Preventive Medicine and Public Health is part of the fifth year program of the Medical Degree, which corresponds to the last training period before moving on to the clinical practice course.

The subject consists of its own parts, such as the foundations and contents of Public Health, the actions and programs of Health Promotion, the organization and functioning of the Health System, the objectives and instruments of health management and evaluation, and the deployment of international health, among others.

On the other hand, it consists of a set of topics that have to be taught in an interrelated manner with the medical pathology subjects, such as preventive actions in communicable diseases and chronic diseases. Regarding these points, within the teaching of Preventive Medicine, an epidemiological vision of the corresponding health problem is presented first, and then, the specialized components of prevention. In these topics, Preventive Medicine represents an additional preventive training, which complements the basic training included in the teaching on the treatment of diseases.

In modern society, the maintenance and promotion of individual health requires both the operation of general public health and health care programs, and the daily work of health professionals in the deployment of preventive and health promotion actions. The notable longevity of the population, which is associated with a high burden of chronic diseases, and the persistence of communicable diseases, requires continued activity of preventive actions, immunizations, screening, health education and preventive advice, so that they constitute a prominent part of the doctor's professional action, for which he must be properly prepared.

The objective of the subject is for the student to know the field and activities of Public Health and to be able to apply Preventive Medicine in medical actions. All of this implies the acquisition of knowledge, attitudes and skills about Preventive Medicine and Public Health. It includes learning both an individual and collective vision of health promotion and risk prevention, as well as disease prevention and health promotion strategies and techniques.

General learning objectives

After successfully completing the subject, we hope that the student will be able to:

Analyze health problems from a community and integrative perspective, and understand the "health-disease continuum" as a result of social, environmental, clinical, health and biological processes, and not as the simple interaction in a single individual of biological forces isolated from the human, political, economic and sociocultural context. Understand the foundations of epidemiological reasoning and apply the main methods and techniques of epidemiology to both clinical medicine problems and community health problems. Know the basics necessary to make a health diagnosis and health plan for the community where you work. Identify the conditions, factors and risk processes associated with the most frequent diseases in our country and the prevention measures (primary, secondary, tertiary and quaternary), the efficacy, effectiveness and efficiency of which have been substantially scientifically demonstrated. Integrate into your clinical practice the preventive care and health promotion guidelines most appropriate for each group of people. Judge the scientific validity, relevance (biological, clinical, health, environmental or social) and statistical precision of research papers and articles. Organize and evaluate your professional activity and that of your team, with the aim of improving the health status of the community where you work and your professional satisfaction

Competences

- Accept one's role in actions to prevent or protect against diseases, injuries or accidents and to maintain and promote health, on both personal and community-wide levels.
- Be able to work in an international context.
- Demonstrate basic knowledge of the Spanish health system, legislation on health and economic issues.
- Demonstrate knowledge of the national and international health organisations and the factors and circumstances affecting other healthcare systems.
- Demonstrate understanding of the factors that determine equality in access to health, their safety and quality.
- Formulate hypotheses and compile and critically assess information for problem-solving, using the scientific method.
- Obtain and use epidemiological data and assess trends and risks for decision-making on health.
- Recognize the determinants of population health, both genetic and dependent on gender, lifestyle, and demographic, environmental, social, economic, psychological and cultural factors.
- Use information and communication technologies in professional practice.

Learning Outcomes

1. Address health problems through collective interventions for the promotion, protection and prevention, and restoration of health and assess their impact.
2. Analyse the national and international systems of epidemiological surveillance.
3. Be able to work in an international context.
4. Critically interpret medical literature.

5. Differentiate between the factors associated with inequalities and, in particular, with gender issues in public health research and practice.
6. Evaluate the healthcare quality system and patient-safety strategies.
7. Formulate hypotheses and compile and critically assess information for problem-solving, using the scientific method.
8. Identify principles of environmental health, workplace health and food health.
9. Identify the international health organisations at Spanish, European and regional level.
10. Identify the main activities of health promotion and disease prevention.
11. Identify the principles of health demography.
12. Implement the procedures of clinical and epidemiological document search and management.
13. Interpret health indicators.
14. Interpret the processes of planning, scheduling and assessment in health programmes.
15. Manage the principles of medicine based on (the best) evidence.
16. Use information and communication technologies in professional practice.
17. Value the principles and apply the methods of preventive medicine and public health.

Content

Preventive Medicine and Public Health: principles. Influence of environmental factors on health: health protection. Influence of personal and social factors on health: health promotion. Health problems and specific actions for communicable and chronic diseases. Sanitary system. Management and evaluation of health interventions. International health.

Distributive blocks

1. Introduction to Preventive Medicine and Public Health.
2. Health protection: environmental health
3. Health problems and specific preventive actions in communicable diseases.
4. Health problems and specific preventive actions in chronic diseases.
5. Health promotion.
6. Health system. Health management and evaluation.
7. International health

THEORICAL CLASS

1. Preventive Medicine and Public Health. Levels and strategies of Preventive Medicine. Determinants of health
2. Environmental factors and health (I)
3. Environmental factors and health (II)
4. Nosocomial infection. Health waste management
5. Epidemiology and prevention of communicable diseases (I)
6. Epidemiology and prevention of communicable diseases (II)
7. Epidemiology and prevention of water-borne diseases.
8. Epidemiology and prevention of viral hepatitis.
9. Epidemiology and prevention of diseases transmitted through the respiratory route
10. Epidemiology and prevention of sexually transmitted diseases and AIDS
11. Epidemiology and prevention of vector-borne diseases. Prevention of traveler's diseases.

12. Vaccination programs
13. Epidemiology of chronic diseases
- 14.- Prevention and control of chronic diseases
15. Cancer epidemiology and prevention
16. Epidemiology and prevention of cardiovascular diseases
17. Epidemiology and prevention of other chronic diseases.
18. Health education and health promotion. Preventive advice
19. Obesity. Nutrition and health. Exercise and health
20. Tobacco and health. drug addictions
- 21.- Alcohol and health. Drug addictions
22. Maternal - child health. Women's health
23. Aging and health
24. Occupational health
25. Mental health
25. Quality of care and patient safety
26. Health system. Primary care and hospital care. Health management. Health economics
27. Health inequalities. Global health. Disease burden in countries

CLINICAL CASE SEMINARS (SCC)

1. Health indicators in Catalonia. Health goals. Health planning
2. Health education.
3. Health promotion.
4. Secondary prevention. Population programs for early cancer detection.
5. Epidemiological surveillance. Control of an epidemic outbreak
6. Preventive vaccinations. Vaccinations of health personnel. Traveler vaccinations
- 7.- Epidemiology and prevention of communicable diseases
8. Prevention of chronic diseases
9. Preparation of an evidence-based project.
10. Quality of care
11. Introduction to research: design of a research protocol. Critical reading of a scientific article

CLINICAL CASE SEMINARS (SCC) - 28h

CLINICAL PRACTICE (PCA): 10h

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
ADVANCED CLINICAL SIMULATION PRACTICE (IN HUMANS (PSCA)	2	0.08	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
CLINICAL CASE SEMINARS (SCC)	28	1.12	3, 5, 7, 16
CLINICAL PRACTICES ASSISTANT (PCAh)	10	0.4	1, 2, 3, 5, 6, 7, 8, 9, 10, 13, 14, 16, 17
THEORY (TE)	27	1.08	1, 8, 9, 10, 13, 14, 16
Type: Autonomous			
THEORY LECTURE	75.5	3.02	1, 2, 3, 5, 6, 7, 8, 9, 10, 13, 14, 16, 17

This Guide describes the contents, methodology and general rules of the subject, in accordance with the current curriculum. The final organization of the subject with respect to the number and size of groups, distribution in the calendar and dates of exams, specific criteria for evaluation and review of exams, will be specified in each of the Hospital Teaching Units (UDH), which will make it explicit through its web pages and the first day of class of each subject, through the professors responsible for the subject at the UDH.

For this course, the professors appointed by the Departments as responsible for the subject at the Faculty and the UDH level are:

Responsible department (s): Department of Pediatrics, Obstetrics and Gynecology and Preventive Medicine

Irma Casas Garcia

Responsables UDHSP	Responsables UDHVH	Responsables UDGTIP	Responsables UDHPT
Teresa Puig	Susana Otero	Irma Casas	Gemma Navarro
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In the current exceptional circumstances, at the discretion of the teachers and also depending on the resources available and the public health situation, some of the theoretical classes, practicals and seminars organized by the Teaching Units may be taught either in person or virtually.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Assessment

Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Attendance and participation in class and seminars / Defense oral works/Clinical practices	30%	3.5	0.14	3, 4, 7, 11, 12, 15, 16, 17
Objective test of multiple choice	70%	4	0.16	1, 2, 4, 5, 6, 8, 9, 10, 12, 13, 14, 15

1. Attendance and participation in classes and seminars / Defense oral works/Clinical practices will represent 30%
 2. Written objective tests. There will be two partial exams that can release
 3. Final make-up test: Students who have not passed the subject may take
 4. Exam review system. The revision of the exams will be carried out individually
 5. Expression of the result of the evaluations: Numerical note with a decimal
- Students who do not take both the theoretical and practical evaluation tests. This subject does not include the single evaluation system.

Bibliography

Bibliography

Specific bibliography

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- Piédrola Gil G. Medicina preventiva y salud pública. Fernández-Crehuet J, Gestal JJ, Delgado M, Bolúmar F, Herruzo R, Serra L, Rodríguez F. (edit), 12ª ed. Barcelona: Elsevier España, 2015
- Sierra A, Sáenz MC, Fernández-Crehuet J, et al., eds. Medicina Preventiva y Salud Pública. 12ª edición Barcelona: Elsevier Masson, 2015

Reference bibliography

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- Gray M. Evidence-Based Health Care and Public Health: How to Make Decisions About Health Services and Public Health. 3rd. ed. Toronto: Elsevier Limited, 2009.

- Novick LF, Morrow CB, Mays GP. Public Health Administration: Principles for Population-based Management (2nd ed). Jones and Bartlett Publishers Inc, 2007.
- Pencheon D, Guest C, Melzer D, Muir Gray JA, eds. 3^a ed. Oxford Handbook of Public Health Practice. Oxford: Oxford University Press, 2013.
- Porta M, Last JM (eds.). A Dictionary of Public Health. Second Edition. New York: Oxford University Press, 2018.
- Boulton ML, Wallace RB. eds. *Maxcy-Rosenau-Last Public Health & Preventive Medicine*, 16e. McGraw Hill; 2022

Internet Resources

- Manual de vacunacions. Agència de Salut Pública de Catalunya. http://salutpublica.gencat.cat/ca/ambits/promocio_salut/vacunacions/Manual-de-vacunacions/
- Vacunación en grupos de riesgo de todas las edades y en determinadas situaciones. Ministerio de Sanidad Consumo y Bienestar Social. <https://www.mscbs.gob.es/profesionales/saludPublica/prevPromocion/vacunaciones/VacGruposRiesgo/Vi>
- Departament de Salut, Generalitat de Catalunya: <http://www.gencat.cat/salut/>
- Ministerio de Sanidad y Política Social: <http://www.msc.es/>
- Centers for Disease Control and Prevention, CDC: <http://www.cdc.gov/>
- Travelers' Health, CDC: <https://wwwnc.cdc.gov/travel>
- Morbidity and Mortality Weekly Report, MMWR: <http://www.cdc.gov/mmwr/>
- Emerging Infectious Diseases, EID: <http://www.cdc.gov/ncidod/eid/>
- Organització Mundial de la Salut, OMS: <http://www.who.int/>

Software

Is not necessary

Language list

Information on the teaching languages can be checked on the CONTENTS section of the guide.