

## 26721 - Preventive Medicine and Public Health

### Información del Plan Docente

<b>Academic Year</b>	2018/19
<b>Subject</b>	26721 - Preventive Medicine and Public Health
<b>Faculty / School</b>	104 - Facultad de Medicina
<b>Degree</b>	304 - Degree in Medicine
<b>ECTS</b>	6.0
<b>Year</b>	4
<b>Semester</b>	First semester
<b>Subject Type</b>	Compulsory
<b>Module</b>	---

### **1.General information**

#### **1.1.Aims of the course**

Health care is the fundamental purpose of all the activities of the medical profession. This course has three overall goals

- Provide a complementary vision to individual health care, focusing on the population dimension of health problems.
- Contribute to the application of criteria of rationality and application of the best available knowledge in the decision making of clinical practice.
- Identify drivers of the health system and health management at different levels that determine effective, efficient and safe clinical practice.

#### **1.2.Context and importance of this course in the degree**

#### **1.3.Recommendations to take this course**

### **2.Learning goals**

#### **2.1.Competences**

#### **2.2.Learning goals**

#### **2.3.Importance of learning goals**

### **3.Assessment (1st and 2nd call)**

#### **3.1.Assessment tasks (description of tasks, marking system and assessment criteria)**

### **4.Methodology, learning tasks, syllabus and resources**

#### **4.1.Methodological overview**

The learning process that has been designed for this subject is based on:

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- Attendance and participation to theory and working sessions.
- Development of scheduled autonomous work.
- Autonomous study of papers and documents.
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### 4.2. Learning tasks

Our program includes:

- Lectures.
- In-class activities.
- Autonomous work on line (documentation provided by Department):
- Review and analysis of papers.
- Case study and seminars
- Video analysis.
- Short quiz for self-learning.

### 4.3. Syllabus

The course will address the following topics:

#### LECTURES:

#### **Introduction and scope of Public health and Preventive Medicine**

1. Public Health and Preventive Medicine: strategies for action.

#### **Epidemiology**

2. The analysis of the population. Demography. Health information systems.
3. Concept and uses of epidemiology.
4. Causality in epidemiology.
5. Measuring the level of health (I): Health indicators.

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6. Measuring the level of health (II): Accuracy and validity. Error and bias.
7. Measuring the level of health (III): Comparability and adjustment. Measurement of mortality and morbidity.
8. Strategies in epidemiological research. Studies design.
9. Descriptive epidemiology: person, place and time. Prevalence and longitudinal studies.
10. Experimental and analytical epidemiological studies. Clinical trials.
11. Observational epidemiological studies: case-control and cohort studies.
12. Clinical Epidemiology I: Evaluation of diagnostic tests. Strategies for early diagnosis.
13. Clinical Epidemiology II: Prognosis and survival.

### **Clinical and Health Care management**

14. Health care and clinical management. Clinical reasoning and determinants of clinical decision making. Clinical practice variations. Sources of evidence in health care. Systematic reviews. The Cochrane Collaboration.
15. Critical appraisal of scientific literature on treatment, prognosis, causation and diagnostic tests.
16. Planning and programming in health services. Clinical guidelines, protocols and clinical pathways
17. Evaluation of health services. Rational of evaluation. Health technology assessment. Health Care Technology and Evaluation in Health Care.
18. Health Economics. Economic evaluation studies.
19. Quality and safety in health care. Incidents and adverse events of health care. Quaternary prevention
20. Health system. Patterns of health systems. Determinants of health policy. International health organizations. Non-governmental organizations focused on health care.
21. The Spanish health system: resources, organization and regulation. Levels of health care: Primary health care. Specialized care. Hospital structure and functioning.

### **Strategies of prevention and promotion and protection of health**

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22. Health protection. Pollution and environmental risks: measuring and health effects.

23. Health Promotion. Lifestyle and health. Health and work: Risks of work. Nutrition and Public Health. Nutritional risk factors. Tobacco and alcohol as public health problems. Health education. Medical counseling. Occupational health.

24. Epidemiology and prevention strategies for chronic diseases and accidents.

25. Current problems in epidemiology and prevention of communicable diseases. Epidemiological surveillance. Vaccinations

26. Communicable diseases as population phenomenon. Emerging and reemerging diseases. Epidemiology and prevention of diseases requiring quarantine and special regulations.

27. Epidemiology and prevention of health care-related infections.

### CASE STUDIES, PRACTICE SESSIONS AND SEMINARS

- Demographic and health indicators. Rate adjustment.
- Epidemiology 1: Incidence and prevalence. Descriptive studies
- Epidemiology 2: Clinical trials.
- Epidemiology 3: Study design. Case-control studies and cohort.
- Epidemiology 4: Validity of diagnostic tests.
- Epidemiology 5. Outbreaks studies.
- Clinical and health management 1: Indicators of health services. Sources for the study of health services.
- Clinical and health management: Quality assessment and improvement of patient safety.
- Prevention of infections associated with health care. Hand washing.
- Strategies for action in public health and preventive medicine. Promotion and protection of health.
- Critical appraisal and evaluation of evidence.
- Public Health and Society: Forum discussion on public health subjects.

### 4.4. Course planning and calendar

For further details concerning the timetable, classroom and further information regarding this course please refer to the Facultad de Medicina website

<https://medicina.unizar.es/> and <https://mmpysp.unizar.es/>

### 4.5. Bibliography and recommended resources

<http://psfunizar7.unizar.es/br13/eBuscar.php?tipo=a>