

**Información del Plan Docente**

<b>Academic Year</b>	2016/17
<b>Academic center</b>	104 - Facultad de Medicina
<b>Degree</b>	304 - Degree in Medicine
<b>ECTS</b>	6.0
<b>Course</b>	4
<b>Period</b>	First semester
<b>Subject Type</b>	Compulsory
<b>Module</b>	---

**1.Basic info**

**1.1.Recommendations to take this course**

**1.2.Activities and key dates for the course**

**2.Initiation**

**2.1.Learning outcomes that define the subject**

**2.2.Introduction**

**3.Context and competences**

**3.1.Goals**

**3.2.Context and meaning of the subject in the degree**

**3.3.Competences**

**3.4.Importance of learning outcomes**

**4.Evaluation**

**5.Activities and resources**

**5.1.General methodological presentation**

*The learning process it is founded in*

*Attendance and participation at theoretical and practical sessions, exercises scheduled, individual work and study of papers an documents.*

**5.2.Learning activities**

**Our program includes:**

- Lectures
- Practice sessions
- Work on line and study (documentation provided by Department):

## 26721 - Preventive Medicine and Public Health

- o Critical appraisal of papers
- o Case study
- o Video analysis
- o Short quiz for self-evaluation of learning

### 5.3.Program

#### Theoretical contents

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

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

#### Epidemiology

1. The analysis of the population. Demography. Health information systems.
2. Concept and applications of epidemiology.
3. Causality in epidemiology.
4. Measuring the level of health (I): Health indicators.
5. Measuring the level of health (II): Accuracy and validity. Error and bias.
6. Measuring the level of health (III): Comparability and adjustment. Measurement of mortality and morbidity.
7. Strategies in epidemiological research. Studies design.
8. Descriptive epidemiology: person, place and time. Prevalence and longitudinal studies.
9. Experimental and analytical epidemiological studies. Clinical trials.
10. Observational epidemiological studies: case-control and cohort studies.
11. Clinical Epidemiology I: Evaluation of diagnostic tests. Strategies for early diagnosis.
12. Clinical Epidemiology II: Prognosis and survival.

#### Clinical and Health Care management

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

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

1. Health protection. Pollution and environmental risks: measuring and health effects.
2. 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.
3. Epidemiology and prevention strategies for chronic diseases and accidents.
4. Current problems in epidemiology and prevention of communicable diseases. Epidemiological surveillance.

## 26721 - Preventive Medicine and Public Health

### Vaccinations

5. Communicable diseases as population phenomenon. Emerging and reemerging diseases. Epidemiology and prevention of diseases requiring quarantine and special regulations.
6. Epidemiology and prevention of health care-associated infections.

### Program practices, case studies and seminars

1. Demographic indicators. Study of mortality. Rate adjustment.
2. Epidemiology 1: Incidence and prevalence. Descriptive studies
3. Epidemiology 2: Clinical trials.
4. Epidemiology 3: Study design. Case-control studies and cohort.
5. Epidemiology 4: Validity of diagnostic tests.
6. Epidemiology 5. Outbreaks studies.
7. Clinical and health management 1: Indicators of health services. Sources for the study of health services.
8. Clinical and health management: Quality assessment and improvement of patient safety.
9. Prevention of infections associated with health care. Hand washing.
10. Strategies for action in public health and preventive medicine. Promotion and protection of health.
11. Critical appraisal and evaluation of evidence.
12. Public Health and Society: Forum discussion on three issues: Ethical Foundations of clinical research, Epidemics and Humanitarian Medicine

### 5.4. Planning and scheduling

### 5.5. Bibliography and recommended resources

#### Textbooks:

- Alhbom A. et al. Fundamentos de Epidemiología. Madrid: Siglo XXI; 2007.
- Aranaz JM et al. Gestión Sanitaria. Calidad y Seguridad de los Pacientes. Madrid: Díaz de Santos; 2008.
- Argimon JM, Jiménez J. Métodos de Investigación Clínica y Epidemiológica 4<sup>a</sup> ed. Barcelona: Elsevier; 2013.
- Beaglehole R et al. Epidemiología básica 2<sup>a</sup> ed. Washington DC: Organización Panamericana de la Salud; 2003.
- Detels R, Gulliford M, Karim QA, Tan CC. ed. Oxford Textbook de Global 6<sup>a</sup> ed Salud Pública 3 vol. Oxford: Oxford University Press; 2015.
- Invitado C, W Ricciardi, Kawachi I, Lang I. Manual de Oxford de la Práctica de Salud Pública. Oxford: Oxford University Press; 2013.
- Hernández I et al. Manual de Epidemiología y Salud Pública, 2<sup>a</sup> ed. Madrid: Interamericana; 2011.
- Fletcher RH, Fletcher SW, Wagner EH. Epidemiología Clínica. Aspectos esenciales. 4<sup>a</sup> Ed Barcelona: Masson - Williams & Wilkins; 2008.
- Hulley S. et al. Diseño de investigaciones 3<sup>a</sup> ed. Barcelona: Wolters Kluver: Lippincott Williams & Wilkins; 2008.
- Martínez MA et al. Conceptos de Salud Pública y Estrategias Preventivas. Un párrafo manual de ciencias de la salud. Barcelona: Elsevier; 2013
- Piédrola G et al. Medicina Preventiva y Salud Pública, 12<sup>a</sup> ed. Barcelona: Elsevier; 2015

#### Web pages:

##### Institutions:

- Instituto de Salud Carlos III: <http://www.isciii.es/>
- Organización Mundial de la Salud: <http://www.who.int/en/>
- Oficina Europea de la Organización Mundial de la Salud: <http://www.who.dk/>
- Centro para la Prevención y Control de las enfermedades: <http://www.cdc.gov/>
- Centro Europeo Para El Control de Enfermedades: <http://ecdc.europa.eu/en/Pages/home.aspx>
- Estados Unidos Agencia de Protección Ambiental (EPA): [www.epa.gov](http://www.epa.gov)
- El Instituto Nacional de Seguridad y Salud Ocupacional (NIOSH): [www.cdc.gov/niosh](http://www.cdc.gov/niosh)
- Salud Pública (Unión Europea): [http://europa.eu.int/comm/health/index\\_es.html](http://europa.eu.int/comm/health/index_es.html)

## 26721 - Preventive Medicine and Public Health

- Ministerio de Sanidad, Servicios Sociales e Igualdad: [www.msssi.es](http://www.msssi.es)

### Scientific societies:

- Sociedad Española de Salud Pública y Administración Sanitaria <http://www.sespas.es/>
- Sociedad Española de Epidemiología: <http://www.seepidemiologia.es/>
- Asociación de Economía de la Salud: <http://www.aes.es/>
- Sociedad Española de Calidad Asistencial: <http://calidadasistencial.es/>
- Asociación Europea de Salud Pública: <http://www.eupha.org/>
- Unión Internacional para la Promoción de la Salud y Educación para la Salud: <http://www.iuhpe.org/>
- Asociación Americana de Salud Pública <http://www.apha.org>

### Evidence based medicine and public health:

- Biblioteca electrónica Cochrane: <http://www.update-software.com/Clibplus/ClibPlus.asp>
- Centro de Medicina Basada en la Evidencia: <http://www.cebm.net/>
- Centro Cochrane Iberoamericano: <http://www.cochrane.es/Castellano/>
- Guiasalud: <http://portal.guiasalud.es/>