

## 29315 - Epidemiology and Public Health

### Información del Plan Docente

<b>Academic Year</b>	2016/17
<b>Academic center</b>	229 - Facultad de Ciencias de la Salud y del Deporte
<b>Degree</b>	442 - Degree in Odontology
<b>ECTS</b>	6.0
<b>Course</b>	2
<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 that is designed for this subject is based on the following:

It is recommended that students have passed the subject of statistics. The learning and achievement of the results thereof will depend on the attendance and participation in the sessions scheduled and the completion of individual works

scheduled.

## **5.2.Learning activities**

The program that is offered to the student help him/her achieve the expected results includes the following activities :

Lectures.

Seminars.

Study and problem solving.

Individual work.

## **5.3.Program**

In the theoretical and practical sessions the following general program will be developed:

Introduction to Public Health

Introduction to research methodology

Introduction to demography

Epidemiology

Information Systems

Planning and health programming

Health policies and health organization

Intervention in public and oral health problems

Detailed program:

Topics of the theoretical program (lectures and seminars)

(Each topic will be about one hour)

1. Introduction to public health (1).
2. Introduction to public health (2).
3. Introduction to research methodology (1).
4. Introduction to research methodology (2).
5. Demographics (1).
6. Demographics (2).
7. Introduction to epidemiology.
8. Measures of frequency, association and impact (1).
9. Measures of frequency, association and impact (2).
10. Measures of frequency, association and impact (3).
11. Measures frequency, association and impact (4).
12. Types of epidemiological studies.
13. Epidemiological descriptive studies.
14. Experimental studies.
15. Cohort studies.
16. Case control studies.
17. Valid statistical association and causation (1).
18. Valid statistical association and causation (2).
19. Valid statistical association and causation (3).
20. Clinical Epidemiology (1).
21. Clinical Epidemiology (2).
22. Scientific publications.

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23. Review of the scientific literature.
24. Health information systems.
25. Measuring health and disease: health indicators.
26. Epidemiological surveillance.
27. Study of outbreaks.
28. Planning and health programming (1).
29. Planning and health programming (2).
30. Health policies and health organization. Types of health systems.
31. Health system in Spain.
32. Action against public health problems.
33. Promotion and health education.
34. Epidemiology and prevention of communicable diseases (1).
35. Epidemiology and prevention of communicable diseases (2).
36. Epidemiology and prevention of noncommunicable diseases (1).
37. Epidemiology and prevention of noncommunicable diseases (2).
38. Action against oral health problems.
39. Epidemiology and prevention of oral health problems.
40. Status of oral public health in Spain.

### Themes practical program

(Each issue will be approximately 2 hours)

1. Sources of health information and calculation of indicators.
2. Demographics.
3. Epidemiology: frequency measurements, association and impact (1).
4. Epidemiology: frequency measurements, association and impact (2).
5. Epidemiology: types of epidemiological studies.
6. Epidemiology: valid statistical association and causation.
7. Epidemiology: epidemiological surveillance and study of outbreaks.
8. Epidemiology: Validity of diagnostic tests.
9. Review of the scientific literature (1).
10. Review of the scientific literature (2).
11. Synthesis and review of key concepts.

## 5.4.Planning and scheduling

Calendar of classroom sessions

**Theoretical Program: classes and seminars** (Each topic will be about one hour)

Date and Time Topic

Day 1 - Mo 09/19/16 - 17:30 to 20:30

1. Introduction to public health (1).
2. Introduction to public health (2).
3. Introduction to research methodology (1).
4. Introduction to research methodology (2).

Day 2 - Tu 20/09/16 - 17:00 to 20:00

5. Demographics (1).
6. Demographics (2).
7. Introduction to epidemiology.

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8. Measures of frequency, association and impact (1).

Day 3 - Mo 09/26/16 - 17:30 to 20:30

9. Measures of frequency, association and impact (2).  
10. Measures of frequency, association and impact (3).  
11. Measures of frequency, association and impact (4).

Day 4 - Tu 09/27/16 - 17:00 to 20:00

12. Types of epidemiological studies.  
13. Descriptive studies.  
14. Experimental studies.  
15. Cohort studies.

Day 5 - Mo 10/03/16 - 17:30 to 20:30

16. Case control studies.  
17. Valid statistical association and causation (1).  
18. Valid statistical association and causation (2).

Day 6 - Tu 10/04/16 - 17:00 to 20:00

19. Valid statistical association and causation (3).  
20. Clinical Epidemiology (1).  
21. Clinical Epidemiology (2).

Day 7 - Mo 10/17/16 - 17:30 to 20:30

22. Scientific publications.  
23. Review of the scientific literature.  
24. Health information systems.

Day 8 - Tu 18/10/16 - 17:00 to 20:00

25. Measuring health and disease: health indicators.  
26. Epidemiological surveillance.

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27. Study of outbreaks.

Day 9 - Mo 24/10/16 - 17:30 to 20:30

- 28. Planning and health programming (1).
- 29. Planning and health programming (2).
- 30. health and health policy organization. Types of health systems.

Day 10 - Tu 10/25/16 - 17:00 to 20:00

- 31. Health system in Spain.
- 32. Action against public health problems.
- 33. Promotion and health education.

Day 11 - Mo 07/10/16 - 17:30 to 20:30

- 34. Epidemiology and prevention of communicable diseases (1).
- 35. Epidemiology and prevention of communicable diseases (2).
- 36. Epidemiology and prevention of noncommunicable diseases (1).
- 37. Epidemiology and prevention of noncommunicable diseases (2).

Day 12 - Tu 10/08/16 - 17:00 to 20:00

- 38. Action against oral health problems.
  - 39. Epidemiology and prevention of oral health problems.
  - 40. Status of oral public health in Spain.
- Practical program** (Each issue will occur in approximately 2 hours)  
**Group 1 (computer classroom)**

Days 1-2 (Mo 11/14/16 17:30 to 20:30h, and Tu 11/15/16 17:00 to 20:00h)

- 1. Sources of health information and calculation of indicators.
- 2. Demographics.
- 3. Epidemiology: frequency measurements, association and impact (1).

Days 3-4 (Mo 11/28/16 17:30 to 20:30h, and Tu 11/29/16 17:00 to 20:00h)

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4. Epidemiology: frequency measurements, association and impact (2).
5. Epidemiology: types of epidemiological studies.
6. Epidemiology: valid statistical association and causation.

Day 5 (Mo 12/19/16 17:30 to 20:30h)

7. Epidemiology: epidemiological surveillance and study of outbreaks.
8. Epidemiology: Validity of diagnostic tests.

### **Group 2 (computer classroom)**

Days 1-2 (Mo 11/21/16 17:30 to 20:30h, and Tu 11/22/16 17:00 to 20:00h)

1. Sources of health information and calculation of indicators.
2. Demographics.
3. Epidemiology: frequency measurements, association and impact (1).

Days 3-4 (Mo 12/12/16 17:30 to 20:30h, and Tu 12/13/16 17:00 to 20:00h)

4. Epidemiology: frequency measurements, association and impact (2).
5. Epidemiology: types of epidemiological studies.
6. Epidemiology: valid statistical association and causation.

Day 5 (Tu 12/20/16 17:00 to 20:00h)

7. Epidemiology: epidemiological surveillance and study of outbreaks.
8. Epidemiology: Validity of diagnostic tests.

### **Groups 1 & 2 (classroom 2)**

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Day 6 (Mo 01/09/17 17:30 to 20:30h)

9. Review of the scientific literature (1).
10. Review of the scientific literature (2).

Day 7 (Tu 01/10/17 17:00 to 20:00h)

11. Synthesis and review of key concepts.

### 5.5. Bibliography and recommended resources

#### Books :

Basic Manual:

Hernández Aguado et al. Manual de Epidemiología y Salud Pública para grados en ciencias de la salud 2ª edición. Madrid: Editorial Médica Panamericana, 2011 EAN: 9788498353587

General reference books:

Piédrola Gil. Medicina preventiva y Salud Pública. Barcelona, Ed. Elsevier 2008. ISBN 978-84-458-1913-5.

De Irala Estévez J, Martínez-González MA, Seguí Gómez M. Epidemiología aplicada. Barcelona: Ed. Ariel. 2008. ISBN: 978-84-344-3725-8. 508 pp.

#### Websites

- \* World Health Organization: <http://www.who.int/en/>
- \* Pan American Health Organization: <http://www.paho.org/>
- \* European Centre for Disease Prevention and Control: <http://ecdc.europa.eu/>
- \* Center for Prevention and Disease Control: <http://www.cdc.gov/>
- \* Ministry of Health, Social Services and Equality: <http://www.msssi.gob.es/>
- \* Instituto de salud Carlos III: <http://www.isciii.es/publico/>
- \* Public health page of the Government of Aragon: <http://www.saludpublicaaragon.es>
- \* Spanish Society of Epidemiology: <http://www.seepidemiologia.es/>
- \* Spanish Society of Public Health and Health Administration <http://www.sespas.es/>
- \* Reports SESPAS: Available in <http://www.sespas.es/informes.php>
- \* WHO reports on health in the world: Available in <http://www.who.int/whr/es/>