

1. BASIC INFORMATION

Course	Epidemiology, Public Health and Applied Biostatistics
Degree Program	Degree in Dentistry
School	Facultad de Ciencias Biomédicas y Deporte
Year	1st
Credits (ECTS)	6 ECTS
Credit type	Basic
Language(s)	English and Spanish
Delivery mode	On campus
Semester	S1
Academic year	2025-2026
Coordinating professor	

2. PRESENTATION OF THE COURSE

This course is part of the first year of the degree program and is classified as a core subject within its academic field. Its main objective is to teach Epidemiology and Public Health as the scientific discipline that studies the frequency and distribution of diseases in the population, as well as the factors that influence or determine their occurrence, with a particular focus on oral health.

3. LEARNING OUTCOMES

Knowledge:

CON06. Understand the importance of maintaining and using patient information records for subsequent analysis, preserving the confidentiality of the data.

- Describe the main types of epidemiological studies, as well as the different basic statistical techniques for their performance.
- Relate the influence of the environment and lifestyle on the level of health of populations.
- Identify the occurrence of communicable and chronic diseases, as well as prevention methods.
- Identify the role of health workers in health education of the population.
- Define the global approach to oral care by applying the principles of health promotion and prevention of oral diseases.

Skills:

HAB04. Knowing, critically assessing and knowing how to use clinical and biomedical information sources and critically assessing them in order to obtain, organize, interpret and communicate scientific and health information.

- Apply the epistemological model in the evaluation of information in scientific publications.

Competences:

CP05. Know the scientific method and having the critical capacity to evaluate established knowledge and new information.

CP71. Integrate analysis with critical thinking in a process of evaluation of different ideas or professional possibilities and their potential for error, based on evidence and objective data that lead to effective and valid decision-making.

4. CONTENTS

The contents of the course/module are listed below:

- Health and its determinants. Public health and community health. Spanish health system.
- Epidemiology, health demography and frequency measures.
- Epidemiological studies. Applications of probability, sensitivity and specificity. Probability distributions. Hypothesis testing.
- Lifestyle and health. Risk factors and causality in epidemiology.
- Prevention of communicable diseases and diseases with high prevalence and morbidity.
- Epidemiology and prevention of the most frequent dental diseases.

5. TEACHING-LEARNING METHODOLOGIES

The types of teaching-learning methodologies used are indicated below:

- Lectures.
- Case method.
- Cooperative learning.
- Problem-based learning.
- Project-based learning.
- Learning based on challenges.

6. LEARNING ACTIVITIES

Listed below are the types of learning activities and the number of hours the student will spend on each one:

Campus-based mode:

Learning activity	Number of hours
Lectures	40
Practical seminars	5
Case studies	12
Problem scenario	10

Report writing	5
Research and projects	10
Independent working	60
Academic advising	6
In-person assessment tests	2
TOTAL	150

7. CONTINUOUS ASSESSMENT

Each assessable learning activity represents an opportunity for the student to make progress, receive feedback, and consolidate knowledge, skills, and competences. The Learning Outcomes outlined in this guide provide direction for this process and serve as benchmarks for their achievement.

Listed below are the assessment systems used and the weight each one carries towards the final course/module grade:

Campus-based mode:

Assessment Systems	Weight (%)
In-person assessment tests	50-60%
Report writing	10-20%
Case study/problem scenario	10-20%
Research and projects	10-20%

In the Virtual Campus, when you access the corresponding course/module you will find information regarding the evaluation systems, including the due dates and the procedures applicable to each of them.

7.1. First exam period

In order to pass the course/module in the ordinary call, the student must obtain a grade greater than or equal to 5.0 (out of 10), in all the evaluation systems proposed in this guide. The final grade will be calculated from the weighted average of all the evaluation systems described.

If in any of the evaluation systems proposed in this guide, a grade lower than 5.0 (out of 10) is obtained, the final grade of the course/module will be “fail” even if, in the result of the weighted average, a value higher than 5.0 (out of 10) is obtained. In the latter case, the course/module would still be “failed” obtaining a final grade of 4.0 (out of 10).

Delivery of activities

Compliance with deadlines is essential to ensure the fairness and planning of the training process.

In case of not submitting an evaluable formative activity in due time and form, and without prior justification, it will not be evaluated and, therefore, will be recorded as “not submitted”.

The student is encouraged to communicate with sufficient time in advance to the teacher of the course/module, any difficulty that may affect their participation in any activity.

Attendance

Active participation in the training sessions is a key component of learning. In order to pass the course/module, at least 50% attendance is required. If this minimum percentage is not reached, the teacher may consider the course/module as “failed”, according to the evaluation regulations of the Universidad Europea de Andalucía.

7.2. Second exam period

The extraordinary exam offers a new opportunity for students to demonstrate their learning. To pass it, it will be necessary to obtain a final grade (weighted average) equal to or higher than 5.0 (out of 10.0).

Delivery of activities

The student must submit and pass those mandatory training activities not delivered or not passed in the ordinary call, respecting the new deadlines established. In case of failure to comply with these new deadlines, the activity will not be evaluated and, therefore, will be recorded as “not presented”.

8. SCHEDULE

This table shows the delivery deadline for each assessable activity in the course:

Assessable activities	Date
In-person assessment tests	Dec 2025, Feb 2026
Report writing	Dec 2025
Case study/problem scenario	During the semester, deadlines will be specified in CANVAS
Research and projects	Jan 2026

This schedule may be subject to changes for logistical reasons relating to the activities. The student will be notified of any change as and when appropriate.

9. REFERENCES

Recommended references are listed below:

- Hernández Aguado. 2018. *Manual de Epidemiología y salud pública para licenciaturas y diplomaturas en ciencias de la salud* (3ª edición). Editorial Médica Panamericana.
- Ruiz Morales. 2017. *Epidemiología Clínica: investigación clínica aplicada* (2ª edición). Editorial Médica Panamericana.
- Dawson B., Trapp Robert G. 2005. *Bioestadística Médica* (4ª edición). Editorial Manual Moderno.

- Fletcher. 2003. *Epidemiología Clínica: aspectos fundamentales*. Editorial Masson.
- Golberg M. 2013. *La Epidemiología sin esfuerzo*. Editorial Díaz de Santos.
- Nordness R. 2006. *Epidemiology and Biostatistics Secrets*. Editorial Mosby.
- Gordis, I. 2015. *Epidemiología* (5ª edición). Editorial Elsevier/Saunders.
- Piédrola Gil G. 2008. *Medicina Preventiva y Salud Pública* (11ª edición). Editorial Elsevier.
- Hernández Aguado. 2018. *Manual de Epidemiología y Salud Pública para grados en Ciencias de la salud* (3ª edición). Editorial Médica Panamericana.
- Frias Osuna A. 2000. *Salud pública y educación para la salud* (1ª edición). Editorial Masson.

Other online resources:

- Unidad de Bioestadística Médica del Hospital Ramón y Cajal. Material docente.
http://www.hrc.es/bioest/M_docente.html

10. AREA OF GUIDANCE, DIVERSITY AND INCLUSION

The Area of Guidance, Diversity and Inclusion (ODI) offers support to students throughout their university career, with the aim of facilitating their academic and personal development and supporting them in achieving their goals. This Area focuses its work on three Core pillars: the inclusion of students with specific educational support needs, the promotion of universal accessibility in the educational community and the guarantee of equal opportunities for all.

Among the services offered are:

- **Academic accompaniment and monitoring**, through counselling and the development of personalised plans aimed at those who need to improve their academic performance.
- **Attention to diversity**, through the implementation of non-significant curricular adjustments - in methodological and Assessment aspects - for students with specific educational support needs, in order to guarantee equal opportunities.
- **Extracurricular training resources**, aimed at developing personal and professional Competencies that contribute to the integral growth of students.
- **Vocational guidance**, through the provision of tools and advice to those who have concerns about their choice of Degree or are considering a change in their educational path.

Students in need of educational support can contact the Area via the following email address:
orientacioneducativa@universidadeuropea.es

11. ONLINE SURVEYS

Participating in the Satisfaction Surveys is an enriching opportunity to contribute to the continuous improvement of the Degree as well as the institution. Thanks to them, it is possible to identify which aspects of academics, teaching staff and the teaching-learning process are working well and which can be further improved.

With the aim of encouraging active participation in the completion of surveys among students, various channels of dissemination have been set up. The surveys are available in the space provided on the Virtual Campus and are also sent by email to facilitate access.

The responses collected allow decisions to be made that have a direct impact on the quality of the learning experience and on the day-to-day life of the university community.