

1. BASIC INFORMATION

Course	BASIC PERIODONTICS
Degree program	DENTISTRY
School	HEALTH SCIENCES
Year	SECOND
ECTS	6 ECTS
Credit type	COMPULSORY
Language(s)	ENGLISH/ SPANISH
Delivery mode	ON-SITE
Semester	2
Academic year	2024-2025
Coordinating professor	SANTIAGO ARIAS HERRERA

2. PRESENTATION

Periodontology is the study of the periodontium or the support structures of the teeth, encompassing the tissues that surround the teeth and fix them to the bone.

This subject is devoted to the study of the periodontium and the diseases that alter its structure as well as their treatment.

Content contextualization.

Through the subject Periodontics I the student will be able to:

- Become familiar with periodontal concepts
- Know the anatomy and physiology of the healthy periodontium and know the differences with the diseased periodontium.
- Assess the health and disease status with the adequate tools (indexes, periodontal charts, x-rays, etc.).
- Know the periodontal diseases, their aetiology and classification according to the clinical characteristics.
- Know all the systemic and environmental factors that influence the development of periodontal diseases.

- Know the general pathologies that have periodontal manifestations.
- Develop the skills related to the different examinations necessary to reach a periodontal diagnosis.
- Develop a treatment plan and select the necessary resources to its completion.
- Develop the skills related to the different therapeutic measures.
- The aim of the laboratory practices is to teach the use of the different periodontal instruments and the techniques related to the periodontal treatment.

Value of the subject in the profession.

- Knowledge and treatment of periodontal processes is fundamental for the dental patient, being important both as an entity in its own right, and for its relationship and influence on the different dental treatments.
- The study of periodontal disease and its correct treatment, in most cases, makes it possible for teeth to remain in the oral cavity. It is important to know both the basic treatment of periodontal disease and the surgical part of the treatment that will allow it to be stable over time.
- It is a subject that is directly involved with the other areas of dentistry, as periodontal health is necessary for most dental treatments and helps to ensure the success of many others. Hence the importance of detection and treatment.
- In addition, periodontal disease can influence other pathologies at a systemic level, which is why its diagnosis and treatment is of great importance.

3. COMPETENCIES AND LEARNING OUTCOMES

Core competencies:

CB2: Students should know how to apply their knowledge to their work or vocation in a professional way and possess the competencies that are usually demonstrated through the elaboration and defence of arguments and the resolution of problems within their study area

CB3: Students should have the ability to gather and interpret relevant data (usually within their area of study) to make judgments that include a reflection on relevant social, scientific and ethical issues.

CB5: Students should have developed those learning skills necessary to undertake further studies with a high degree of autonomy. CG14 – Knowledge of the general process of disease, including infection, inflammation, immune system alterations, degeneration, neoplasia, metabolic alterations and genetic disorders.

CG22 - Capacity to elaborate an initial diagnostic judgement and establish a reasoned diagnostic strategy, being competent in the recognition of those situations that require an urgent dentistry treatment.

CG26 – Capacity to plan and perform multidisciplinary dentistry treatments, in a sequential way and of limited complexity in patients of all ages and conditions, as well as patients that require special care.

CG27 – Capacity to plan and propose the adequate preventive measures to each clinical situation.

CG30 – Capacity to recognise the dentist's role in preventive actions of oral diseases as well as in the maintenance and promotion of oral health, both at individual and community levels.

Cross-curricular competencies:

CT1: Responsibility: The student must be able to take the consequences of his/her own actions and be held accountable for such actions.

CT3: Ethical values conscience: Ability of the student to feel, judge, argue and act according to the moral values in a coherent, persistent and autonomous way.

CT7: Teamwork: The student must be able to participate actively in the development of a common goal; listening, respecting and valuing the ideas and proposals of the rest of members of his/her team.

CT8: Initiative: The student must be able to anticipate in a proactive way proposing solutions or alternatives to the situations that are presented.

Specific competencies:

CE35 – Diagnose, plan and perform, with general characteristics, a sequential, multidisciplinary and comprehensive treatment, with limited complexity, in patients of all ages and conditions, as

well as in patients with special needs (diabetes, high blood pressure, oncologic pathology, organ transplant, immunosuppression medication, blood thinning medication, among others) and handicapped patients. More specifically, the dentist must be competent in the establishment of a diagnosis, prognosis, and adequate therapeutic planning, especially in cases of orofacial pain, TMJ disorders, bruxism and other parafunctional habits, dental and periapical pathology, oral and dental trauma, periodontal and periimplant pathology, bone pathology of the jaws, the soft tissues and annex glands, partial or complete states of edentulism. The dentist must also be competent in the planning of the rehabilitating treatment using tooth-borne prosthesis, implant-borne prosthesis or mucosal supported prosthesis, dental malpositions and/or dental malocclusions, and other anatomic or functional alterations of the face and the stomatognathic system and its possible orthodontic, orthopaedic, or surgical corrections.

CE36 – Take and interpret radiographies and other image-based procedures that are relevant to the dentist's practice.

CE38 – Determine and identify the aesthetic requirements of the patient and the possibilities to fulfil them.

CE39 – Identify the patient that requires special care, recognizing his/her characteristics and peculiarities.

CE47 – Perform medical and surgical treatment of the common diseases of the oral soft tissues.

CE50 – Treat pharmacologically, as well as surgically, the inflammatory processes of the periodontal and periimplant tissues, including supra and subgingival instrumentation techniques.

CE55 – Perform conventional aesthetic procedures from a multidisciplinary perspective.

Learning outcomes:

LO1: Learning and understanding periodontal pathology ^[L]_[SEP]

LO2: Acquire the adequate knowledge to distinguish the different aetiological factors involved in the development of periodontal diseases. ^[L]_[SEP]

LO3: Ability to make adequate decisions while establishing a treatment plan in a periodontally compromised patient. ^[L]_[SEP]

The following table shows the relationship between the competencies developed during the course and the learning outcomes pursued:

Competencies	Learning outcomes
CG14, CG27, CG30, CB2, CB3, CB5	LO1
CG14, CG27, CG30, CB2, CB3, CB5, CE35, CE36, CE39	LO2
CG14, CG22, CG26, CG27, CG30, CB2, CB3, CB5, CT1, CT3, CT7, CT8, CE35, CE36, CE38, CE39, CE47, CE50, CE55	LO3

4. CONTENT

Topic 1. Periodontal anatomy.

Topic 2. Aetiology of periodontal diseases. Immunologic and inflammatory response mechanisms of periodontal tissues.

Topic 3. Microbiology of oral biofilms.

Topic 4. Periodontal pathogens.

Topic 5. Classification of periodontal diseases.

Topic 6. Genetic risk factors in the pathogenesis of periodontal diseases. Risk factors in the pathogenesis of periodontal diseases.

Topic 7. Epidemiology of periodontal diseases. Its importance to the population.

Topic 8. Conventional diagnostic systems. Advanced diagnostic systems.

Topic 9. Gingivitis: etiopathogenesis. Plaque-induced gingivitis. Non-plaque-induced gingivitis

Topic 10. Periodontal diseases: Periodontitis. Prognosis

Topic 11. Necrotizing periodontal diseases.

Topic 12. Periodontal abscesses.

Topic 13. Mechanical plaque control.

Topic 14. Chemical plaque control.

Topic 15. Non-surgical periodontal treatment.

Topic 16. Periodontal maintenance

The **practical program** will be taught through:

PRACTICE 1: CLINICAL HISTORY, EXAMINATION AND PERIODONTOGRAM

PRACTICE 2: INSTRUMENTS

PRACTICE 3: RADIOLOGY

PRACTICE 4: EPIDEMIOLOGY

PRACTICE 5: ORAL HYGIENE TECHNIQUES

PRACTICE 6: SCALING AND ROOT PLANING TECHNIQUE

PRACTICE 7: SHARPENING CURETTES

5. TEACHING-LEARNING METHODOLOGIES

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

- Tutorial activity
- Master Classes
- Virtual master classes
- Seminars
- Practical exercises
- Laboratory practices

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
Tutorial activity	16
Master Classes	24
Online Master Classes	15
Seminars	6
Practical exercises	12
Laboratory practice	36
Autonomous study and work	39
On-site knowledge tests	2
TOTAL	150

7. ASSESSMENT

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

Campus-based mode:

Assessment system	Weight
Case analysis	15%
Pre-clinical practice	40%
Practical exercises	10%
Knowledge tests	35%
TOTAL	100%

When you access the course on the *Campus Virtual*, you'll find a description of the assessment activities you have to complete, as well as the delivery deadline and assessment procedure for each one.

7.1. First exam period

In order to average the assessments in the first exam period, it is essential to overcome the four activities with a grade over 5.0 (out of 10 points) in each one.

In accordance with the regulations of the Faculty of Health Sciences, class attendance is compulsory, so students may not miss more than two classes during the whole semester. Failure to attend theory classes means that the student has not reached the necessary competences to pass the subject and will have failed the subject in the ordinary exam, having to take the exam in the extraordinary exam. The activities described in the timetable as classroom activities imply compulsory attendance at the Campus. Failure to attend the Campus without a justified cause will imply lack of attendance. Punctuality will be considered, three delays of more than 15 minutes or departures before the end of the class will be counted as absence.

Regarding the practical laboratory classes, absence from more than three sessions without a justified reason will result in failure of the practical part of the course, both in ordinary and extraordinary exams.

If the student is unable to attend class regularly and with justification, an alternative method of assessment must be arranged with the teacher before the first month of classes.

1. **Theory test** (35% of the final grade)

A written test about the theory content will be carried out and will consist of 70 multiple choice questions and two open questions, of which only one must be answered.

Each multiple-choice question contains four answers, of which only one is correct. Each wrong answer discounts 0.33 of the number of correct answers. Non-answered questions do not discount on the final grade. The open question is worth 1 point and the multiple-choice questions are worth 9 points

The final grade of the test will be determined using the following formula:

$$(\text{N}^{\circ} \text{ of correct answers} - \text{N}^{\circ} \text{ of wrong answers} / 3) \times (9/50) + \text{Open question}$$

In order to pass the theory content assessment, it is necessary to obtain a grade equal or over 5.0. If the student fails to reach the grade of 5.0, it will be necessary to repeat the test in the second exam period.

2. **Pre-clinical practice** (40% of the grade)

The students perform several activities in the laboratory during the semester. Such practices are made with the intent of preparing the student for the clinical practice and working life, simulating the real-life treatments in a controlled environment.

Practice evaluation is divided in three blocks:

- The **first block** comprises the periodontal chart, curette identification and periapical status.
- The **second block** comprises oral hygiene and periodontal indexes.
- The **third block** comprises the quadrant scaling and root planning as well as curette

sharpening.

- After each block, an individual assessment is made for every student, where he/she must answer theory questions and practice the activity over the head model.
- Each block must be passed with a grade equal or over 5.0. If the student does not reach that grade, a new practical exam of the failed block(s) can be made at the end of the semester during the first exam period.
- **Second block will be presented and assessed in Spanish in order to comply with the requirements of the Bachelor in Dentistry approved by the University. The purpose of this activity is to improve the use of Spanish language.**
- The grade of practical classes is the weighted average of the three blocks. Block 1 and 3 weigh 40% each, and block 2 weighs 20%. Such average will count for 40% of the final grade of the subject.
- If the student fails one or more blocks from the practice during the first exam period must repeat the three blocks during the second exam period.

3. **Practical exercises** (10% of the final grade)

Throughout the semester, students will carry out a revision project based on a bibliographic search and research work. The topics of the work will be assigned by the lecturer in charge of the subject. The work will be presented by the students in the form of informative diptych in PDF format (2 A4 pages). The assignments are uploaded to Virtual Campus and will be made available to all students. It is essential to have the corresponding file uploaded on the Virtual Campus platform on the date to be published.

To pass the practical exercises, it is necessary to have a grade over equal or 5.0 (out of 10).

If the student fails this activity during the first exam period, the student must execute the practical exercises determined by the teacher in order to justify the knowledge evaluated in this part. The student will perform these exercises during the second exam period.

4. **Case analysis** (15% of the final grade)

After all theory content has been explained, the students will solve a problem involving clinical case. **In the problem, questions about any of the theory topics can be asked.**

To pass the clinical case problem, it is necessary to have a grade equal or over 5.0. In case the student fails this activity, it can be repeated during the second exam period.

The mention of "Matrícula de Honor" will be awarded to students who have obtained a grade equal to or higher than 9.0. Their number may not exceed five percent of the students enrolled in each subject in the corresponding academic year, unless the number of students enrolled is less than 20, in which case only one "Matrícula de Honor" may be awarded.

7.2. Second exam period

To pass the subject during the second exam period, the student must pass those activities that were failed during the semester or the first exam period. The student will repeat only the activities that were not passed, and the other grades (from the first exam period) will be kept for the computation of the final grade. The pre-clinical practice is repeated as a whole, and not block-by-block. The characteristics of the assessment will be identical to the first exam period.

8. SCHEDULE

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

Assessable activities	Deadline
Case analysis	May 2025
Pre-clinical practice	Pending publication
Practical exercises	Pending publication
Knowledge tests	June 2025

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. BIBLIOGRAPHY

Here is the **indispensable** recommended bibliography:

- CLINICAL PERIODONTOLOGY AND IMPLANT DENTISTRY
 - Lindhe J, Lang NP (6th edition). Wiley Blackwell
- ATLAS DE PERIODONCIA
 - Rateitschat Editorial Salvat

And here is the **complementary** recommended bibliography:

- CIRUGÍA MUCOGINGIVAL
 - Fernando Fombellida Cortázar y Francisco Martos Molino
- Mucogingival Aesthetic Surgery
 - Giovanni Zucchelli Editorial Quintessence
- Carranza's Clinical Periodontology
 - M Newman, 2014. Editorial McGraw-Hill

10. EDUCATIONAL GUIDANCE AND DIVERSITY UNIT

From the Educational Guidance and Diversity Unit we offer support to our students throughout their university life to help them reach their academic achievements. Other main actions are the students inclusions with specific educational needs, universal accessibility on the different campuses of the university and equal opportunities.

From this unit we offer to our students:

1. Accompaniment and follow-up by means of counselling and personalized plans for students who need to improve their academic performance.
2. In terms of attention to diversity, non-significant curricular adjustments are made in terms of methodology and assessment for those students with specific educational needs, pursuing an equal opportunities for all students.
3. We offer students different extracurricular resources to develop different competences that will encourage their personal and professional development.
4. Vocational guidance through the provision of tools and counselling to students with vocational doubts or who believe they have made a mistake in their choice of degree.

Students in need of educational support can write to us at:

orientacioneducativa.uev@universidadeuropea.es

11. ONLINE SURVEYS

Your opinion matters!

The Universidad Europea encourages you to participate in several surveys which help identify the strengths and areas we need to improve regarding professors, degree programs and the teaching-learning process.

The surveys will be made available in the “surveys” section in virtual campus or via e-mail.

Your assessment is necessary for us to improve.

Thank you very much for your participation.