

## 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	2025-2026
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 Basic Periodontics 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 <sup>[L]</sup><sub>[SEP]</sub>

LO2: Acquire the adequate knowledge to distinguish the different aetiological factors involved in the development of periodontal diseases. <sup>[L]</sup><sub>[SEP]</sub>

LO3: Ability to make adequate decisions while establishing a treatment plan in a periodontally compromised patient. <sup>[L]</sup><sub>[SEP]</sub>

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

The subject is organised into 16 theory topics:

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: ORAL HYGIENE TECHNIQUES, PERIODONTAL INDEXES

PRACTICE 2: CLINICAL HISTORY, EXAMINATION AND PERIODONTAL CHART

PRACTICE 3: PERIODONTAL INSTRUMENTS. CURETTE IDENTIFICATION

PRACTICE 4: INTRAORAL RADIOLOGY

PRACTICE 5: SCALING AND ROOT PLANING TECHNIQUE

PRACTICE 6: CURETTE SHARPENING

## 5. TEACHING-LEARNING METHODOLOGIES

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

- Master Classes
- Case learning
- Problem-based learning
- Simulation environment

## 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
<b>TOTAL</b>	<b>150</b>

## 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%
<b>TOTAL</b>	<b>100%</b>

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 pass the course in the first exam period, you must obtain a grade higher or equal to 5.0 out of 10.0 in the final grade (weighted average) of the course.

In any case, it will be necessary to obtain a grade higher than or equal to 5.0, independently, in each of the evaluation systems that make up the subject (including the knowledge tests split into midterms). The weighted average of the knowledge tests split into partial exams may be assessed on the basis of a mark equal to or higher than 4.

The Universidad Europea de Valencia establishes continuous assessment as the system for assessing knowledge, skills and basic, general, transversal and specific competences of the degree in Dentistry, in accordance with the provisions of the Regulations for the assessment of undergraduate degrees. In this regard, and for the purposes of the use of exam sessions, students should be aware that, if they present any of the assessment systems set out in the Syllabus of the subject, in the first exam session the student will have an overall grade for the subject, thus using up the exam period.

In accordance with the aforementioned regulations, students taking in Campus degree courses are obliged to justify at least 50% of class attendance, as a necessary part of the evaluation process. In the case of theoretical or practical classes determined as compulsory by the teacher in the course timetables, the student must register 90% attendance, whether the absence is justified or not. The lack of accreditation by the means proposed by the University will entitle the lecturer to grade the subject as failed in the first exam period, according to the grading system.

Punctuality will be considered, 3 delays of more than 15 minutes or departures before the end of the class will be counted as a lack of attendance.

The student must consult the timetable of the subject on the Virtual Campus for the compulsory classroom sessions.

The mention of 'With honours' will be awarded to students who have obtained a grade equal to or higher than 9.0. Their number may not exceed 5% 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 honourable mention may be awarded.

The student must obtain a mark of 5 out of 10 or more in each of the following activities. Each part must be passed separately:

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

A written test about the theory content will be carried out and will consist of multiple choice questions and open questions.

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

$$(\text{Nº of correct answers} - \text{Nº of wrong answers} / 3) \times (9/70) + \text{Open question}$$



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 two blocks:

- The **first block** comprises oral hygiene, periodontal indexes, periodontal chart, curette identification and radiology.
- The **second block** comprises the quadrant scaling and root planning, curette sharpening, and ultrasonic instrumentation (dental cleaning).

- 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 phantom.
- 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.
- **The first 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.**
- Each of the two blocks is worth 50%. The practical training grade will count for 40% of the final grade for the basic periodontology course.
  - Block 1:
    - Theoretical part (periodontal indices, HO techniques, radiology). Ten multiple-choice questions and 4 open questions. Duration 45 minutes. Weighting: 30%.
    - Practical part:
      - Periodontal chart. Weighting 20%
      - Curette identification (UEvalua). Weighting 30%
      - X-ray film holders (UEvalua). Weighting 20%

- Block 2:
  - Practical part
    - Scaling with Gracey curettes (UEvalua). Weighting 50%
    - Scaling with universal curette (UEvalua). Weighting 20%
    - Curette sharpening (UEvalua). Weighting 30%
- If the student fails one or more blocks from the practice during the first exam period must repeat the two blocks during the second exam period.
- Recovery sessions for justified absences will be held during the first exam period. During this period, a maximum of two justified absences can be made up.

### 3. Case analysis (15% of the final grade)

After all theory content has been explained, the students will solve a problem involving a 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.

### 4. Practical exercises (10% of the final grade)

Throughout the semester a review work will be carried out, according to the Sustainable Development Goals (SDGs), relying on a literature search and carrying out a research work. The topic of the work will be assigned by the professor responsible for the subject related to Goal: 3 Health and well-being and, specific Goal: Goal 3. The papers will be submitted by the students by means of an informative TRIPTIC in PDF format (2 A4 pages). The papers will be uploaded to Canvas and will be subsequently available to all students. It is essential to have the corresponding file uploaded on the Canvas platform on the assigned date.

Likewise, the activity of the Plan for the Development of Learning Competences in Data Driven Approach and Research Concern (PDCI) will be developed, which consists of the identification of the impact factors of scientific journals.

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.

## **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.

In any case, it will be necessary for the student to obtain a grade higher or equal to 5.0 in the final exam, in order for it to be averaged with the rest of the activities.

The activities that were not passed in the first exam period must be handed in, after having received the corresponding corrections from the teacher, or those that were not handed in.

The Universidad Europea de Valencia establishes continuous assessment as the system for assessing knowledge, skills and basic, general, transversal and specific competences of the degree in Dentistry, in accordance with the provisions of the Regulations for the assessment of undergraduate degrees. In this regard and for the purposes of the consumption of calls, the student should be aware that in the second call it will be the Objective Knowledge Test (OKT) which determines whether the call is used. In the exceptional case that the student only has assessments pending that are not the OKT, it will be considered NP (not presented) if no assessments are presented and will get a numerical grade if at least one of the pending assessments is submitted.

In accordance with the aforementioned regulations, students taking in Campus degree courses are obliged to justify at least 50% of class attendance, as a necessary part of the evaluation process. In the case of theoretical or practical classes determined as compulsory by the teacher in the course timetables, the student must register 90% attendance, whether the absence is justified or not. Those students who, due to non-compliance with this requirement, must sit an extraordinary exam, must carry out as many activities or knowledge tests as the teacher determines in order to recover this part and pass it on the basis of the specified rubric.

To pass in the extraordinary call, students will have to take a practical assessment where they must demonstrate that they have acquired the necessary theoretical knowledge and practical skills from the practical sessions conducted throughout the semester. This practical assessment will last a maximum of 2 hours.

Students who have not reached 90% attendance will have to be examined on all practical sessions, while students with sufficient attendance will only need to pass the practical sessions or the blocks they failed.

## 8. SCHEDULE

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

Assessable activities	Deadline
Case analysis	Check virtual campus (Canvas)
Pre-clinical practice	Check virtual campus (Canvas)
Practical exercises	Check virtual campus (Canvas)
Knowledge tests	Check virtual campus (Canvas)

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.

***The student should consult the timetable of the course on the virtual campus for the compulsory classroom sessions.***

## 9. BIBLIOGRAPHY

Here is the **indispensable** recommended bibliography:

- LINDHE'S CLINICAL PERIODONTOLOGY AND IMPLANT DENTISTRY
  - Berglundh T, Giannobile W, Lang NP, Sanz M (7<sup>th</sup> 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

In addition, students will be provided with other materials that will be available on Canvas; it is a dynamic bibliography that will be adapted to the requirements and interests of the students. Given the change in privacy regulations, etc., it may only be possible to provide students with links for the development of the various activities.

## 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](mailto: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.