

## 1. BASIC INFORMATION

<b>Course</b>	Dental Therapy IV
<b>Degree program</b>	Dentistry
<b>School</b>	School of Biomedic and health sciences
<b>Year</b>	Forth
<b>ECTS</b>	4 ECTS
<b>Credit type</b>	Obligatory
<b>Language (s)</b>	English
<b>Delivery mode</b>	Campus-based mode
<b>Semester</b>	Second semester
<b>Academic year</b>	2024/2025
<b>Coordinating professor</b>	Rebeca Bartolomé Moore

## 2. PRESENTATION

Study of the diseases that affect the dental pulp, which include the etiology, pathogenesis, clinical histopathology, diagnosis, prevention and treatment, in order to provide the student with a general understanding of the behaviour of this part of dentistry

## 3. COMPETENCIES AND LEARNING OUTCOMES

### Core competencies:

- CoC3: That students 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 or ethical issues.
- CoC4: That students can transmit information, ideas, problems and solutions to a specialized and non-specialized public.
- CoC5: That students have developed the necessary learning skills to undertake further studies with a high degree of autonomy.

### Cross-curricular competencies:

- CC1: Autonomous learning: Process that allows the person to be the author of their own development, choosing the paths, strategies, tools and moments that they consider most effective to learn and implement independently what they have learned. The

autonomous student, in short, selects the best strategies to achieve their learning objectives.

- CC4 - Capacity for analysis and synthesis: Analysis is the method of reasoning that allows complex situations to be decomposed into their constituent parts; also evaluate other alternatives and perspectives to find optimal solutions. The synthesis seeks to reduce complexity in order to understand it better and / or solve problems.

- CC5 - Ability to apply knowledge to practice: Ability to use the knowledge acquired in the academic field in situations as similar as possible to the reality of the profession for which they are being trained, for example, by linking theoretical foundations with their application to real problems of everyday life, addressing problems and situations close to the professional activity or by solving real issues and / or problems.

- CC7 - Awareness of ethical values: Ability to think and act according to universal principles based on the value of the person who is being directed to their full development and that entails the commitment with certain social values.

- CC8 - Information management: Ability to search, select, analyze and integrate information from various sources.

### **General competencies:**

- GC3: Know how to identify the patient's concerns and expectations, as well as communicate effectively and clearly, both orally and in writing, with patients, family members, the media and other professionals.

- GC14: Understand the general processes of the disease, including infection, inflammation, alterations of the immune system, degeneration, neoplasia, metabolic disorders and genetic disorders.

- GC17. Understand and recognize the principles of ergonomics and safety at work (including control of cross infection, radiation protection and occupational and biological diseases).

- GC21 Know how to perform a complete oral examination, including the appropriate radiographic and complementary examination tests, as well as obtaining adequate clinical references.

- GC25. Know and apply the basic treatment of the most common oral pathology in patients of all ages. Therapeutic procedures should be based on the concept of minimal invasion and on a global and integrated approach to oral treatment.

- CGC27. Suggest and propose the appropriate preventive measures for each clinical situation.
- GC30 Recognize the role of the dentist in the actions of prevention and protection against oral diseases, as well as in the maintenance and promotion of health, both at the individual and community level.

### **Specific Competences:**

- SC10. Recognise oral normality and pathology, as well as the evaluation of semiological data.
- SC13. Handle, discriminate and select appropriate materials and instruments in Dentistry.
- SC14. Know dental biomaterials: their handling, properties, indications, allergies, biocompatibility, toxicity, waste disposal and environmental impact.
- SC16. Know and use the basic equipment and instrumentation for dental practice.
- SC18. Provide a comprehensive approach to oral care and apply the principles of health promotion and prevention of oral diseases
- SC19. Educate and motivate patients in the prevention of oral diseases, control pathogenic oral habits, instruct them on proper oral hygiene, dietary and nutritional measures and, in summary, on all methods of maintaining oral health.
- SC44. Prepare and isolate the operative field.

### **Learning outcomes:**

- LO2. Specifically, the dentist must be competent in the establishment of a diagnosis, a prognosis and the development of adequate therapeutic planning, and particularly in orofacial pain, temporo-mandibular disorders, bruxism and other parafunctional habits; dental and periapical pathology; bucco-dental trauma
- LO3. Perform basic treatments of the bucco-dental pathology in patients of all ages based on the concept of minimal invasion and in a global and integrated approach of the bucco-dental treatment
- LO5. Identify the main reason for consultation and the history of the current disease. Make a general clinical history of the patient and a clinical record that faithfully reflects the patient's records.
- LO7. Knowledge and capacity for the establishment of an adequate treatment through: the

appropriate prescription of drugs, knowing their contraindications, interactions, systemic effects and repercussions on other organs, application of loco-regional anesthesia techniques,

- LO8. Preparation and isolation of the operative field. Identify, assess and address emergencies and medical emergencies that may arise during clinical practice; manage acute infections, including pharmacological prescription and simple surgical aspects. Identify and attend any dental emergency.
- LO12. Perform endodontic treatments and apply procedures to preserve pulp vitality. Perform conventional aesthetic procedures from a multidisciplinary perspective.

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

Competencies	Learning outcomes
CoC3, CoC5, CC1, CC4, CC8, GC3	LO2
CoC5, CC1, CC5, GC25	LO3
CoC4, CC7, CC8, GC21, GC27	LO5
CoC4, CC1, CC5, GC14, GC25	LO7
CoC5, CC1, CC5, CC7, GC13, GC14, GC30	LO8
CoC3, CoC4, CC4, CC5, GC25	LO12

## 4. CONTENT

The material is organized in different units:

**UA1.** Presentation of the subject. Diagnostics in endodontics I.

**UA2.** Diagnostic II

**UA3.** Principles of the preparation of root canals

**UA4.** Nickel instruments – Titanium I

**UA5.** Nickel instruments – Titanium II

**UA6.** Obturation materials

**UA7** Obturation techniques. Classification

**UA8.** Emergencies in endodontics

**UA8.** Accidents and complications in endodontics.

**UA9.** Pharmacology in endodontics

**UA11.** Treatment of a tooth with immature apex

**UA12.** Endoperiodontal pathology

**UA13.** Endodontic surgery

**UA14.** Clinical cases I in endodontics

**UA15.** Clinical cases II in endodontics

Exposition of works and debate

Exposition of works and debate. Workshop

## 5. TEACHING-LEARNING METHODOLOGIES

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

- Master class
- Case method
- Cooperative learning
- Learning based on problems (LBP)
- Simulation environments

## 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
Master Clases	20,5
Practices	3
Case analysis	10
Tutorials	2
Roel playing	4,5
Problem resolving	7

Debate	7,5
Knowledge Tests	2
Study and autonomous work	43,5
<b>Total</b>	<b>100</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
Knowledge tests	30%
Problem cases	10%
Debate/group work	20%
Preclinical practices (Workshop)	30%
Portfolio	10%

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

To pass the subject in the ordinary examination, the student must pass all the different parts that make up the same: attendance, test of theoretical knowledge, test of clinical cases, simulated preclinical practices, group work and portfolios.

To pass the subject it is necessary to successfully pass all the parts separately. A score lower than 5 in any of the different parts that make up the subject will imply the suspension of the subject.

### 7.2. Second exam period

To pass the subject in the extraordinary examination session, you must have passed the tests of theoretical knowledge, problem cases, group work and have delivered the portfolio. To pass the subject it will be necessary to have passed all the sections with a grade equal to or higher than 5.

## 8. SCHEDULE

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

Assessable activities	Deadline
Presentation of the subject. Diagnostic in endodontology I.	Week 1
Diagnostic II	Week 2
Principles of the preparation of root canals	Week 3
Nickel instruments-Titanium I	Week 4
Nickel instruments-Titanium II	Week 5
Obturation materials	Week 6
Obturation techniques. Classification	Week 7
Emergencies in endodontics	Week 8
Accidents and complications in endodontics. Pharmacology in endodontics	Week 9
Treatment of a tooth with immature apex	Week 10
Endoperiodontal pathology	Week 11
Endodontic surgery	Week 12
Clinical cases I in endodontics	Week 13
Clinical cases II in endodontics	Week 14
Exposition of works and debate	Week 15
Exposition of works and debate	Week 16
Preclinical practices/Workshop	Week 17
Exam	Week 18
Exam Revision	Week 19

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

The recommended Bibliography is:

- *Pulp paths. Keneth Hargreaves. Stephen Cohen*
- *Endodontics. Clinical techniques and scientific bases. Carlos Canalda: Esteban Brau.*
- *Solution of problems in endodontics. James Guttman; Paul E. Lovdahl.*

- *Endodontics. Arnaldo Castellucci.*
- *International journals: Journal of Endodontics, International Endodontic Journal, Dental Traumatology*

## **10. DIVERSITY MANAGEMENT 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@universidadeuropea.es](mailto:orientacioneducativa@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.