

1. BASIC INFORMATION

Course	Dental Therapy II
Degree program	Degree in Dentistry
School	Biomedical sciences
Year	Third
ECTS	6 CTS
Credit type	Obligatory
Language(s)	English/Spanish
Delivery mode	Face to face clases
Semester	Second semester
Academic year	2024/2025
Coordinating professor	Beatriz Tomas

2. PRESENTATION

Restorative II is a third year subject of included in the Degree in Odontology that studies medical and surgical procedures to restore the shape and function of the tooth that has been affected in the pulp. The vast majority of tooth diseases produce destruction of mineralized tissues (enamel, dentine and cement) and as a consequence the shape of their crowns is altered and therefore, their chewing and aesthetic function. When the disease affects the dental pulp, certain processes occur which usually terminate the vitality of the tooth and if left to its natural evolution, could finish with the permanence of the tooth in its arch. Endodontics studies the procedures and materials necessary to restore the tooth affected by pulp disease.

The theoretical classes, the seminars, the practical classes, the tutorials, the study and autonomous and group work are the ways of organizing the teaching and learning processes of this subject.

The practical activities of Endodontics train the student in the treatment of root canals, to: Apply the means of protection prior to endodontic treatments.

Execute the different phases of pre-clinical treatment Know and use endodontic instruments Know and apply the materials and medications used.

At the end of the subject, the student will be sufficiently motivated to study and execute clinical treatments with irreversible pulp and periapical injuries in anterior and posterior teeth

3. COMPETENCIES AND LEARNING OUTCOMES

Core competencies:

- CoC3: Students must 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: students must be able transmit information, ideas, problems and solutions to a specialized and non-specialized public. autonomy.
- CoC5: Students must develop the learning skills that are necessary 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, the strategies, the tools and the moments that they consider most effective to learn and independently implement 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 the decomposition of complex situations in 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 relating theoretical foundations with their application to real problems of everyday life, address problems and situations close to professional activity or solve 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 that are 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.

Especific Competences:

- SC7. Know the danger of ionizing radiation and its effects on biological tissues, along with the legislation that regulates its use. Direct oral radiodiagnosis facilities.
- SC10. Recognize normality and oral 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.
- S36. Take and interpret radiographs and other image-based procedures relevant to dental practice.
- S53. Perform endodontic treatments and apply procedures to preserve pulp vitality

Learning outcomes:

LO1: Diagnose, plan and perform, in general, a restorative, sequential and integrated treatment of limited complexity in patients of all ages and conditions

LO3: Perform basic treatments of the oral and dental pathology in patients of all ages based on the concept of minimal invasion and in a global and integrated approach to the oral-dental treatment

LO4: Recognize normality and oral pathology, as well as the evaluation of semiological data.

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.

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 to any dental emergency.

LO12. Perform endodontic treatments and use the procedures required to preserve the pulp vitality. Perform conventional aesthetic procedures from a multidisciplinary point of view.

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

CompetenciEs	LEARNING OUTCOMES
CoC3, CC1,CC4, CC5,CT8, SC10, SC18, SC19.	LO1: Diagnose, plan and perform, in general, a restorative, sequential and integrated treatment of limited complexity in patients of all ages and conditions

CoC4, CC1, CC4, CC5, CC7, SC7, SC13, SC14, SC16, SC36, SC53	LO3: Perform basic treatments of the oral and dental pathology in patients of all ages based on the concept of minimal invasion and in a global and integrated approach to the oral-dental treatment
CoC3, CoC5, CC1, CC4, CC5, CC8, SC10	LO4: Recognize normality and oral pathology, as well as the evaluation of semiological data.
CoC3, CoC4, CoC5, CC1, CC4, CC5, CC7, CC8, SC10, SC18, SC19	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.
CoC3, CoC4, CoC5, CT1, CT4, CT5, CT7, CT8 SC16	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 to any dental emergency.
CoC4, CC1, CC4, CC5, CC7, SC7, SC13 SC14, SC16, SC36, SC53	LO12: Perform endodontic treatments and use the procedures required to preserve the pulp vitality. Perform conventional aesthetic procedures from a multidisciplinary point of view

4. CONTENT

LESSON 1. INTRODUCTION TO ENDODONTICS AND INTERNAL ANATOMY

Definition of Endodontics.

Anatomy of the canal system of different dental groups (incisors, canines, premolars and molars).

Most frequent anatomy and its possible variation

LESSON 2. ACCESS OPENINGS IN ENDODONTICS:

Design of the access cavities to the canal system.

Location of the root canals.

LESSON 3 AND 4: MATERIALS I AND MATERIALS II

History of the materials in endodontics.

Materials used during the implementation phase of the Endodontics. Characteristics.

Materials used during the obturation phase. Characteristics.

LESSON 5: INSTRUMENTATION IN ENDODONTICS:

Techniques of manual instrumentation in endodontics. Clinical systematic.

LESSON 6: OBTURATION:

Technique for the canal obturation in endodontics. Clinical systematic.

LESSON 7: IRRIGATION:

Materials used in the irrigation of the canal system. Characteristics.

Irrigation techniques in endodontics.

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

5. TEACHING-LEARNING METHODOLOGIES

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

- Master class.
- Case method.
- Cooperative learning.
- Problem-based learning.
- 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
LABORATORY PRACTICES	34,5
MASTER CLASES	17
KNOWLEDGE TESTS	3
ASYNCHRONOUS VIRTUAL MASTER CLASSES	5
TUTORIALS	2,5
AUTONOMOUS WORK	75
PROBLEMS SOLVING	8
CASES ANALYSIS	5
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
Knowledge test	30%
Portfolio	15%
Clinical case	15%
Preclinic practices	40%

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 ordinary call, you must obtain a grade greater than or equal to 5.0 out of 10.0 in each of the different evaluable activities (knowledge test, portfolio, case / problem, simulated preclinical practices).

7.2. Second exam period

To pass the subject in an extraordinary call, it is necessary to obtain a qualification greater than or equal to 5.0 out of 10.0 in the different evaluable activities (knowledge test, portfolio, case / problem, simulated preclinical practices) of the subject. The activities not passed in ordinary call must be

delivered, after having received the corresponding corrections from the teacher, or those that were not delivered.

8. SCHEDULE

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

Assessable activities	Deadline
Activity 1. Portfolio	Weeks 5-7-8
Activity 2. Clinical case	Weeks 14
Activity 3. Pre-clinic practices	Weeks 1-11,13-17
Activity 4. Knowledge test	Week 18

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 main reference work for this subject is:

- Patología y Terapéutica Dental - 2ª Edición. Ed. ElSevier 2014. García Barbero, Javier.

The recommended Bibliography is:

- Anatomía, fisiología y oclusión dental. Editorial: Elsevier- Saunders. Wheeler.
- Odontología restauradora, fundamentos y técnicas, tomo I-II. Luis Narciso Baratieri. Editorial Santos 2009.
- Operatoria dental. Barrancos Mooney. Panamericana. 1.999.
- Soluciones clínicas, técnicas y fundamentos. Luis Narciso Baratieri. Editorial Santos 2009.
- Adhesión dental: Pautas de actuación clínica. José Luis Padrós Serrat. Ediciones especializadas europeas. Octubre 2009.

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

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.