

1. BASIC INFORMATION

Course	Restorative Dentistry 1
Degree program	Degree in Dentistry
School	European University of Valencia
Year	2020/21
ECTS	6 ECTS
Credit type	Compulsory
Language(s)	English and Spanish
Delivery mode	On-site/face to face
Semester	First semester
Academic year	Third
Coordinating professor	Ana García Navarro

2. PRESENTATION

The discipline Restorative Dentistry, is included inside the Dental Pathology and Treatment subject. This subject consists of two main areas: the Dental Pathology, which studies diseases of the teeth, their etiology, pathogenesis, diagnosis, prognosis and the appropriate treatment; and the Dental Operative, which is responsible for carrying out the procedures and the clinical use of the dental materials aimed at restoring the tooth shape and hence its function and aesthetics. The Restorative Dentistry, as a discipline, studies diseases of the teeth considered organs and medical and surgical procedures to restore the form and function of the tooth as a unit and as a whole. The vast majority of diseases of the teeth produce destruction of the mineralized tissues (enamel, dentin and cementum), and consequently, induce morphological, functional and / or aesthetic alterations.

The aim of this subject is to assess, diagnose and treat the patient with dental caries disease or no cavities disease, and be able to use all the materials designed to restore form, function and aesthetics of the tooth in patients of all ages, showing the significance of the preparation of the operative field, and the use of the different instruments for the therapeutic treatment.

3. COMPETENCIES AND LEARNING OUTCOMES

General competencies:

GC14 - Knowledge of the general processes of the disease, in which we can include infection, inflammation, immune system disorders, degeneration, neoplasia, metabolic disorders and genetic disorders.

GC25 - Ability to understand and apply the basic treatment of the most common oral and dental disease in patients of all ages. Therapeutic procedures will be based on the concept of minimally invasive and a comprehensive and integrated approach to dental treatment.

GC26 - Ability to know how to plan and carry out multidisciplinary, sequential and integrated limited complexity in patients of all ages and conditions and patients who require special care dental treatments.

GC27 - Ability to formulate and propose appropriate preventive measures every clinical situation.

GC3 - Ability to be able to identify the concerns and expectations of the patient and communicate effectively and clearly, both orally and in writing with patients, family members, the media and other professionals.

CG30 - Ability to recognize the role of the dentist in prevention actions and protection against oral diseases, as well as in the maintenance and promotion of health, both at the individual and community level.

CB3 - Students have the ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical.

CB4 - That students can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences.

CB5 - Students have developed the necessary learning skills to undertake further studies with a high degree of autonomy

Cross-curricular competencies:

TC1 - Responsibility: The student is able to bear the consequences of the actions taken and accountable for their own actions.

TC4 - Communication skills: Students will be able to express concepts and ideas effectively, including the ability to communicate in writing with brevity and clarity as well as public speaking effectively.

TC5 - Interpersonal Understanding: Students will be able to perform active listening in order to reach agreements using an assertive communication style.

TC7 - Teamwork: Students will be able to participate in an active way in achieving a common goal, listening, respecting and valuing the ideas and proposals of the other members of his team.

TC8 - Initiative: The student should be able to anticipate proactively proposing solutions or alternatives to the situations presented.

Specific competencies:

CE34 - The student should be able to perform basic treatments of the oral and dental 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-dental treatment.

CE35 - The student should be able to diagnose, plan and perform, in general, a multidisciplinary, sequential and integrated treatment of limited complexity in patients of all ages and conditions and in patients with special needs (diabetic, hypertensive, oncological, transplanted, immunosuppressed, anticoagulated, among others) or disabled. 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, temporomandibular disorders, bruxism and other parafunctional habits; dental and periapical pathology; bucco-dental trauma; Periodontal pathology and peri-implant tissues; bone pathology of the jaws, buccal soft tissues and attached glands; stages of partial or total

edentation and in the planning of their rehabilitation treatment through dento and mucosal-supported prostheses, or through dental implants, malpositions and / or dental malocclusions and other anatomical or functional alterations of the face or stomatognathic system and their possible corrections orthodontic, orthopedic or surgical.

CE36 - The students should be able to take and interpret radiographs and other procedures based on the image, relevant in the dental practice.

CE38 - The student should be able to determine and identify the aesthetic requirements of the patient and the possibilities of satisfying their concerns.

CE39 - The student should be able to identify the patient that requires special care, recognizing its characteristics and peculiarities

CE43 - Apply loco-regional anesthesia techniques.

CE43- Apply techniques of loco-regional anesthesia.

CE44 - Prepare and isolate the operative field. CE43 - Apply loco-regional anesthesia techniques. CE46 - Identify and assist any dental emergency.

CE51 - Evaluate and treat the patient with caries or other non-cariou dental pathology and be able to use all materials aimed at restoring the shape, function and aesthetics of the tooth in patients of all ages.

CE53 - Operationally treat destructive processes and traumatic lesions dento-alveolar. CE55 - Perform conventional aesthetic procedures from a multidisciplinary perspective.

CE59 - Perform the dental treatment of the child patient and recognize their characteristics and peculiarities.

CE60 - Identify and correct oral habits that may cause or exacerbate malocclusions.

Learning outcomes:

LO1. To diagnose, plan and perform, in general, a restorative, sequential and integrated treatment of limited complexity in patients of all ages and conditions and in patients with special needs (diabetic, hypertensive, oncological, transplanted, immunosuppressed, anticoagulated, among others) or disabled.

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. For the establishment of such diagnosis and treatment plan the dentist must acquire the following competences: Take and interpret radiographs and other procedures based on the image, relevant in dental practice.

LO4. Carry out basic treatments of the bucco-dental 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-dental treatment.

LO5. For the establishment of an adequate treatment, the dentist must be competent in: Applying loco-regional anesthesia techniques. Prepare and isolate 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.

LO6. To evaluate and treat the patient with caries or other dental pathology and be able to use all materials aimed at restoring the shape, function and aesthetics of the tooth in patients of all ages. Design, prepare the teeth, prescribe, record, perform clinical tests and place and put into service indirect restorations: incrustations, veneers or aesthetic laminated fronts and unit crowns, treat operatively the destructive processes and traumatic lesions dento-alveolar.

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

Competencies	Learning outcomes
CG14, CG25,CG26, CG27, CG3, CG30, CB3, CB4, CB5 CT1, CT4, CT5, CT7, CT8 CE34, CE35, CE36, CE38, CE39, CE44, CE46, CE51, CE53, CE55, CE59, CE60	LO1 LO2
CG14, CG3, CB3, CB4 CT1, CT4, CT5, CT7 CE35, CE36, CE39	LO3
CG25, CG26, CG27, CG3, CB4 CT1, CT4, CT5, CT7, CT8 CE34, CE35, CE44, CE51, CE53, CE55, CE60	LO4
CG14 CE35, CE43, CE44, CE46	LO5
CG14, CG25,CG26, CG27, CG3, CB4 CT7, CT8 CE34, CE35, CE36, CE38, CE39, CE44, CE46, CE51, CE53, CE55, CE60	LO6

4. CONTENT

Annex 1:

CONTENTS

THEORY AGENDA

1.- DENTAL PATHOLOGY

Carious

1.1.- Introduction to Cariology/decay. General nosological characteristics of dental caries/decay.

Basis for the therapy of dental caries/decay.

1.2.-Oral fluids and their relationship with the decay's

etiology. 1.3.- Biofilms related to decay's etiology.

1.4.-Diet's elements related to decay's etiology.

1.5.-Alteration of the dental structure in caries/decay lesion.

1.6.-Clinical manifestations of dental decay. Basis for diagnosis. Prognosis. Basic diagnosis: history and exploration (equipment and systematic procedure).

1.7.-Decay's radiological diagnosis. Other diagnostic

procedures. Non carious

1.8.-Anomalies in dental

morphodifferentiation. 1.9.- Anomalies in

dental histodifferentiation. 1.10.-

Neof ormative dental processes.

1.11.-Dental consumptive processes: dental resorption.

1.12.-Dental consumptive processes: attrition, abrasion, erosion, abfraction.

2.- CONSERVATIVE DENTAL THERAPEUTICS (I)

Generalities

2.1.-Specific terminology. Dental Nomenclature. Dental identification systems. Cavities' classification. Parts of a therapeutic cavity. Obturation general concepts. Materials and technique.

2.2.- Conservative Dentistry manual dental cutting instrumental. Characteristics and handling. 2.3.- Rotary dental cutting instrumental.

2.4.- The preparation of the dental operative field. Organization of the preoperative work environment. Illumination. Field isolation: use of rubber dam and other procedures.

2.5.-Dental therapy basis for silver

amalgam. 2.6.- Cavitory designs for

composite resins.

PRACTICAL AGENDA

- 1.- Dental anatomical remembrance/memory. Coronal and root dental morphology.
- 2.-Clinical and radiological identification of decay lesion.
- 3.- Isolation of the operative field.
- 4.-Cavitory preparations for fillings/obturations with composite resin.
- 5.- Obturation/filling with composite.

5. TEACHING-LEARNING METHODOLOGIES

The methodological principles to take into account for the development of this methodology are:

- Master class.
- Clinical Case method.
- Cooperative learning
- Problem-based learning
- Simulation Environments

In this course the Hyflex Experiential Learning Model will be used, which has as one of its pillars the Extended Classroom, where some students will be present in the physical classroom and others in the virtual classroom; that is, we are going to work with a double presence.

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 Classes	45h
Debates	9h
Problem resolution	18h
Case analysis	18h
Laboratory practices	45h
Tutorials	9h
Role Playing	9h
TOTAL	153

7. ASSESSMENT

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

Assessment system	Weight
Knowledge test	30%
Preclinical practices	35%
Clinical case	10%
Portfolio	5%
Debates	20%
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. **Each part will be approved with a minimum grade of 5. If each of the parts is not passed, the failed test (s) will be considered NOT PASSABLE, not doing arithmetic mean and the subject being suspended in ordinary call, the student present in extraordinary call.**

1. First exam period

To pass the course in the first exam period, you must obtain a final course grade of at least 5 out of 10 (weighted average).

In any case, you will need to obtain a grade of at 5.0 in the final exam in order for it to count towards the final grade along with all the grades corresponding to the other activities.

To pass the subject in the Ordinary call:

- The minimum grade to pass the course is 5. The arithmetic average will be carried by all the parts, provided that ALL PARTS ARE PASSED. The subject will be approved by obtaining a minimum score of the half of the assigned percentage (grade equal to or greater than 5) in each of the parts of the subject. The arithmetic average will not be performed if the student suspends any part of the subject.

- Students who are not present at the ordinary call, or those who appear but do not obtain a passing score must be submitted to an extraordinary call at the end of the second semester.

2. Second exam period

To pass the course in the second exam period, you must obtain a final grade of at least 5 out of 10 (weighted average).

In any case, you will need to obtain a grade of at 5.0 in the final exam in order for it to count towards the final grade along with all the grades corresponding to the other activities.

It will be held on the month of July 2021. To be approved at the extraordinary call:

- The minimum grade to pass the course is 5 (the half of the assigned percentage; grade equal to or greater than 5) in each of the parts of the subject.
- The arithmetic average is carried with all the parts, provided that all parts were exceeded.
- The arithmetic average is not performed if the student suspends one part of the whole subject.

The student must deliver the activities not successfully completed in the first exam period after having received the corresponding corrections from the professor, or those that were not delivered in the first place.

8. SCHEDULE

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

Assessable activities	Deadline
Knowledge test	January 2021 (not specified date and an eliminatory partial in december 2020)
Debates	From 1 to 3 tests, to be agreed according to the schedule during the semester
Clinical case	January 2021 (not specified date)
Preclinical practices	Daily and a test during the practices in 2020
Portfolio	October 2020

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

Specific bibliography

- Barrancos MJ, Barrancos PJ. (2009). Operatoria dental: integración clínica. Ed. Buenos Aires: Médica Panamericana. 4a Edición.
- Barbero JG. (2015) Patología y terapéutica dental; operatoria dental y endodoncia. Madrid: Elsevier, cop. 2a edición.
- Mondelli J. (2009). Fundamentos en Odontología Restauradora. Sao Paulo: Santos Editora.
- Pescarmona, G.C. (2012). Restorative dentistry: treatment procedures and future prospects. St Louis, MO: Elsevier/Mosby.
- Hirata R. (2012). Tips. Claves en odontología estética. Buenos Aires: Médica Panamericana.
- Henostroza H., G. (2010). Adhesión en odontología restauradora. Madrid: Ripano. 2a edición.
- Mangani, F., Cerutti, A., Putignano, A., Riddington, H. (2009). Guidelines for adhesive dentistry : The key to success. London: Quintessence Publishing.
- Berkovitz, B.K.B., Holland, G.R., Moxham, B.J. (2009). Oral anatomy, histology and embryology. Edinburgh: Mosby. 4th edition.

Complementary bibliography:

Web pages for consulting:

Medline-PubMed: <http://www.ncbi.nlm.nih.gov/sites/entrez>

The Cochrane Collaboration: <http://www.cochrane.org/>

The bibliography is also delivered to the student as part of the materials available on Blackboard; It is a dynamic bibliography.

10.DIVERSITY MANAGEMENT UNIT

Students with specific learning support needs:

Curricular adaptations and adjustments for students with specific learning support needs, in order to guarantee equal opportunities, will be overseen by the Diversity Management Unit (UAD: Unidad de Atención a la Diversidad).

It is compulsory for this Unit to issue a curricular adaptation/adjustment report, and therefore students with specific learning support needs should contact the Unit at unidad.diversidad@universidadeuropea.es at the beginning of each semester.

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.