

Academic Year/course: 2022/23

## 29330 - Conservative Odontology III

### Syllabus Information

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**Academic Year:** 2022/23

**Subject:** 29330 - Conservative Odontology III

**Faculty / School:** 229 - Facultad de Ciencias de la Salud y del Deporte

**Degree:** 442 - Degree in Odontology

**ECTS:** 6.0

**Year:** 4

**Semester:** First semester

**Subject Type:** Compulsory

**Module:**

## 1. General information

### 1.1. Aims of the course

**The subject and its expected results respond to the following plans and objectives:**

- Define the concept of Endodontics.
- Determine the causes of dental health lost and make a proper clinical history.
- Identify the different types of pulp pathology. Describe the etiology, fisiopathology and semiology of them and also establish the prognosis of the process.
- Describe and apply the proper diagnosis methods to each pathology .Establish a therapeutic guide for each type of pathology.
- Describe the nature and clinical application of materials used in Endodontics.
- Make the correct sequence for the treatment of canal roots.
- Rebuild the original morphology of the tooth, respecting its triple function (chewing, vocal and aesthetic)
- Protect the hard dental tissue exposed, avoiding mechanic, thermal, osmotic, chemotoxic and bacterial influences on the pulp.
- Develop the capability of making scientific work (not only bibliographic revision but also research) and also making public speech.

These proposals and goals are aligned with the following Sustainable Development Goals (SDGs) of the 2030 Agenda of the United Nations (<https://www.un.org/sustainabledevelopment/>), in such a way that the acquisition of the learning outcomes of the course provide training and competence to contribute to their achievement:

- Goal 3: Health
- Goal 4: Education

### 1.2. Context and importance of this course in the degree

According to the 14 th February resolution of the State Secretary of Universities and Research it was set the condition of the curriculum to get the Odontology Degree .The plan of teaching includes the following modules:

- . Module 1: Basic biomedical sciences important for Odontology.
- . Module 2: Introduction to Odontology; Materials and Instrumentation; Community Odontology and Public Health; Initiation to Investigation and Communication Abilities.
- . Module3: General medical-surgical Pathology and therapeutic.
- . Module 4: Odontologic Pathology, therapeutic and rehabilitation.
- . Module 5: Practicum and end of grade work.

Conservative odontology belongs to Module IV and studies enamel, dentine and pulp affections and their complications and also the clinical techniques to their cure and renovation eliminating the minimum health dental tissue.

Its objectives are :

- To allow the patient to keep a correct mastication and aesthetic preserving the most part of health dental tissue, which will increase the survival of the tooth in a long term.
- To practice minimally invasive treatment for dental tissue.

It is known that about half of the professional work of a dentist is related to this discipline, so these contents have a fundamental function in the formation of a professional of Odontology.

### 1.3. Recommendations to take this course

This subject is fundamental for the professionals who want to work in this profession. 65% of consultations is due to dental pain, mainly pulp pain, result of caries or traumatic processes.

Being able to diagnosis and treat this pain, will be the key for the success in the dental consultation.

## 2. Learning goals

### 2.1. Competences

**1- Make basic treatment of oral pathology in simulators.** Therapeutic procedures should be based on the concept of minimal invasion and a global and integrated perspective of dental treatment.

**2- Diagnose, plan and make a multidisciplinary treatment, sequential and integrated with limited complexity in patients.** Specifically, the dentist must be competent in diagnosing, prognosing and developing a proper therapeutic plan, particularly :

- . Dental and periapical pathology
- . Dental traumas

**3- To establish the diagnosis and treatment plan , the dentist must achieve the following competences:**

- Take and interpret radiographies and other procedures based on images, relevant in Odontology.
- Determinate and identify the patient's aesthetic requirements and the possibility of satisfying them.
- Identify the patient who needs special care, realizing his characteristics.

**4- To establish a proper treatment , the dentist must be competent in:**

- Adequate prescription of drugs, knowing its counter-indications ,systemic effects and consequences on other organs.
- Apply local anaesthesia technique.
- Prepare and isolate the surgical field
- Deal with severe infections, including pharmacological prescription and simple surgery aspects.
- Identify and assist any odontologic emergency.
- Treatment dental trauma in temporary or permanent teeth.
- Value and treat the patient with caries or another dental pathology and be able to use all the materials needed to restore the shape, function and aesthetic of the tooth in patients of all ages.
- Design ,prepare the teeth, prescribe, register, make clinic tests and set and put into service indirect restoration : incrustations, veneers or aesthetic laminated fronts and unitary crowns.
- Treatment with surgery destroying processes and dental trauma.
- Make endodontic treatment and use procedures to preserve pulp vitality
- Make conventional aesthetic procedures from a multidisciplinary perspective

**5- Transversal competences**

- To know the scientific method and be able to value the established knowledge and new information. To be able to formulate hypothesis, collect and value in a critic way the information to solve problems following the scientific method.
- To get and elaborate a clinical history with all relevant information.
- To be able to do a complete oral check, including needed radiographs, complementary exams and get the suitable clinical references.
- To be able to elaborate an initial diagnosis and establish a reasoned diagnosis strategy, being competent in recognizing situations which need urgent attention.
- To know and apply the basic treatment of the most usual dental pathology in patients of all ages. Therapeutic procedures should be based on the concept of minimal invasion and a global and integrated view of dental treatment.
- To know how to plan and make multidisciplinary treatments, sequential and integrated, with limited complexity in patients of all ages and condition, and in those who require special care.
- To suggest preventive measures suitable for each clinical situation.
- To get clinical experience under suitable supervision.

### 2.2. Learning goals

Students ,to pass this subject, should show the following results?.

1. Identify and describe properly the symptoms of dental and/or periapical pathology referred by the patient.
2. Establish a differentiating diagnosis, and a treatment plan.
3. Evaluate the concrete signs of dental and periapical pathology, by means of clinical exploration and complementary tests.

4. Value properly the patient's requirements related to the proposed treatment.
5. Explain, according to the patient's characteristics (age, social level?), the benefits and risks of the proposed treatment, so that you could get the consent and could satisfy his expectations.
6. Establish the therapeutic sequence, in case a multidisciplinary treatment is required, and plan a working session in the dental office.
7. Solve with the correct conservative technique the diagnosed pathology.
8. Identify and solve any odontologic emergency with a dental or periapical origin.
9. Use the scientific method in the analysis of biologic systems and biomedical problems.

### 2.3. Importance of learning goals

In a context of degrees directed to get expert's competences, learning results represent the concrete level of some of these competences, showing observable actions.

A competence has a development perspective potentially infinite. The learning result identifies what the student will concretely be able to do at the end of the process.

From this point, we are presenting the expected results of this subject :

- To know the etiology, histopathology and prognosis of dental lesions, with caries origin or not, and value different pathologies affecting pulp and periapical tissue.
- To compile a complete dental history and establish a general therapeutic guide applying the correct diagnosis methods.
- To learn to make the therapeutic methods to preserve, establish or restore the shape, function and aesthetic of teeth in simulators prepared to resemble real clinic situations to which they will face.
- To get pre-clinical experience at University, under the appropriate supervision to make basic treatments that should be based on the concept of minimal invasion.

## 3. Assessment (1st and 2nd call)

### 3.1. Assessment tasks (description of tasks, marking system and assessment criteria)

- 1- Attendance to 100% of theoretical classes and /or practical seminars (1 point added to the final mark ).
- 2- Evaluation of Pre-clinical Practices (30% of the final mark ).
- 3- Work in groups about topics concentered by the teacher (30% of the final mark).
- 4- Theoretical test (40% of the final mark). It's divided in two parts :
  - 40 test questions ,where wrong answers don't subtract , but you will need 24 right answers to pass. (maximum value in this part will be 8 points )
  - 1 question to develop, to be answered in one sheet of paper maximum. (maximum value in this part will be 2 points ).
    - You must pass both parts separately.

\* All the previous points must be passed individually.

\*\* According to the Regulation of Learning Assessment Standards of the University of Zaragoza, the student will have the right to a global joint assessment test, which will be carried out on the dates published by the Center in the calendars of each degree in 1st and 2nd call.

#### Grading system

The numerical rating will be expressed in accordance with the provisions of art. 5.2 of Royal Decree 1125/2003 of September 5 (BOE September 18), which establishes the European credit system and the system of qualifications for university degrees of an official nature and valid throughout the national territory. Thus, the grades will be established in the following range: From 0 to 4.9: Suspense (S); 5.0 to 6.9: Pass (A); from 7.0 to 8.9: Notable (N); 9.0 to 10: Outstanding (SB). The mention Matriculation of honor may be awarded to students who have obtained a grade equal to or greater than 9.0.

## 4. Methodology, learning tasks, syllabus and resources

### 4.1. Methodological overview

The methodology followed in this course is oriented towards the achievement of the learning objectives. A wide range of teaching and learning tasks are implemented, such as theory sessions, seminars and workshops, practice sessions, assignments and tutorials.

### 4.2. Learning tasks

This course is organized as follows:

- **Theory sessions.** The teacher will expose theory topics and active participation will be promoted. Teacher expositions' will rely on schemes and illustrations to ease students' comprehension of the topics. Furthermore, in some theory sections, additional material will be given and we will encourage the use of conceptual maps to achieve deeper learning.
- **Seminars and workshops.** Theoretical/practical workshops given by the teacher or invited speakers to go into detail in especially interesting topics. We will also work on the ABP technique, to encourage participation and reasoning of students about issues related to the topics.
- **Practice sessions.** Prepared with individual and cooperative activities. They will be developed in the preclinical room. These activities will make students be more interested in the daily clinics they can find when they become professionals.
- **Group and individual assignments.** We will also look for reinforcing the independent learning, by monographs, individually or in groups, inside a reciprocity teaching. The assignment will include the research and bibliographic revision, redaction and oral exposition in class encouraging reflection and debate of some works, previously designated by the teacher.
- **Tutorials.** On-site or online tutorials.

### 4.3. Syllabus

This course will address the following topics:

- UNIT 1. ENDODONTICS PRINCIPLES
- UNIT 2.PUPLP AND PERIAPICAL PATHOLOGY
- UNIT 3.ENDODONTICS INSTRUMENTS
- UNIT 4.ENDODONTICS DIAGNOSIS
- UNIT 5.CAVITY OPENING
- UNIT 6.CONDUCTOMETRIA????? AND INSTRUMENTALIZATION OF RADICULAR CANAL ROOTS
- UNIT 7.IRRIGATION OF CANAL ROOTS
- UNIT 8.FILLING OF CANAL ROOTS
- UNIT 9.RETREATMENT OF ENDODONTICS FAILURES
- UNIT 10. EMERGENCIES AND PHARMACOLOGY IN ENDODONTICS
- UNIT 11. ENDODONTICS SURGERY
- UNIT 12.COMPLICATIONS AND ACCIDENTS IN ENDODONTICS
- UNIT 13.RESTORE TEETH WITH ENDODONTICS TREATMENT

#### PRACTICE SESSIONS

##### ENDODONTICS PRECLINICAL PRACTICE SESSIONS

- PRACTICAL UNIT 1 Cavity opening, location and manual preparation of canal roots in uniradicular teeth (5) and biradicular teeth (5) (practices 1-2-3-4).
- PRACTICAL UNIT 2 Cavity opening, location and manual preparation of canal roots in multiradicular teeth(10) (practices 5-6-7-8 )
- PRACTICAL UNIT 3 Filling canal roots by lateral condensation?? (practices 9-10-11-12 )

### 4.4. Course planning and calendar

Theory sessions and preclinical practice will start in September until the first term finishes.

Further information concerning the timetable, classroom, office hours, assessment dates and other details regarding this course will be provided on the first day of class or please refer to the Faculty of Health and Sports Sciences website and Moodle.

### 4.5. Bibliography and recommended resources

To consult the bibliography and recommended resources, you must access the *Recommended Bibliography* link.