

## 29336 - Paediatric Odontology I

### Syllabus Information

---

**Academic Year:** 2020/21

**Subject:** 29336 - Paediatric Odontology I

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

**Degree:** 442 - Degree in Odontology

**ECTS:** 6.0

**Year:** 4

**Semester:** Second semester

**Subject Type:** Compulsory

**Module:** ---

## 1.General information

### 1.1.Aims of the course

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

Know how to identify the concerns and expectations of the patient, as well as communicate effectively and clearly, both orally and in writing with pediatric patients, family members and other professionals.

Identify the main reason for the consultation and the current illness. Make a general medical history of the pediatric patient and a clinical file that accurately reflects the records of the same.

Also identify the signs and attitudes that reflect the possible existence of abuse.

Know the child's psychobiological development, knowing how to apply necessary management techniques for behavior control in pediatric dental treatment.

Carry out basic treatments for oral pathology. Therapeutic procedures should be based on the concept of minimal invasion and a comprehensive global approach to oral treatment.

Educate and motivate patients on prevention, control pathogenic oral habits, instruct them on proper hygiene, dietary and nutritional measures.

Carry out oral treatment of the infant patient and recognize its characteristics and peculiarities.

Identify oral habits likely to cause or exacerbate malocclusions.

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

According to the Resolution of February 2008, of the Secretary of State for Universities and Research, the conditions to which the curricula leading to obtaining the title of Dentist must be established were established. The planning of the teachings foresees the inclusion in the new study plan of the following modules:

Module 1: Basic biomedical sciences relevant to dentistry.

Module 2: Introduction to Dentistry; Materials and Instrumentation; Community Dentistry and Public Health; Initiation to Research and Communication Skills.

Module 3: General medical-surgical pathology and therapy.

Module 4: Odontological pathology, therapy and rehabilitation.

Module 5: Practicum and final degree project.

Pediatric dentistry belongs to Module IV, being the area of ??Dentistry, which concerns the provision of preventive and therapeutic care for the oral health of the child from birth to adolescence.

This course provides the theoretical and practical bases for the correct performance of the dentist before the pediatric patient.

### 1.3.Recommendations to take this course

In order to take advantage of and advance in this subject and to be able to carry out their clinical practices within reasonable safety limits, the student needs to have extensive knowledge of anatomy, dental materials, operative treatment of caries in adults, anesthesia techniques and surgical maneuvers. in the adult, orthodontics and dental radiology.

Pediatric Dentistry I has a theoretical-practical nature with clinical practices.

It is essential to bring the subject up to date trying to understand the essential concepts, so it is important to attend theoretical classes, practices and seminars.

## 2. Learning goals

### 2.1. Competences

**Upon passing the subject, the student will be more competent to:**

Carry out basic treatments for oral pathology in patients of all ages. Therapeutic procedures should be based on the concept of minimal invasion and a comprehensive and integrated approach to oral treatment.

Diagnosing, planning and carrying out, in general, a multidisciplinary, sequential and integrated treatment of limited complexity in patients of all ages and conditions and in patients with special needs (diabetics, hypertension, oncology, transplant, immunosuppressed, anticoagulated, etc.) or disabled. Specific

Physically, the dentist must be competent in establishing a diagnosis, a prognosis and the development of adequate therapeutic planning, and particularly in:

- Dental and periapical pathology
- Oral trauma

To establish such a diagnosis and treatment plan, the dentist must acquire the following skills:

- Take and interpret radiographs and other image-based procedures relevant to dental practice.
- Carry out diagnostic models, assemble them and take interocclusal records.
- Determine and identify the aesthetic requirements of the patient and the possibilities of satisfying their concerns.
- Identify the patient who requires special care, recognizing their characteristics and peculiarities.
- Assess the motor and sensory function of the mouth, jaws and appendages and perform limited procedures for invasive diagnostic techniques in soft tissues (biopsies).

To establish an adequate treatment, the dentist must be competent in:

- Appropriate prescription of drugs, knowing their contraindications, interactions, systemic effects and repercussions on other organs.
- Apply locoregional anesthesia techniques.
- Prepare and isolate the operative field.
- Manage acute infections, including prescription and simple surgical aspects.
- Identify and attend to any dental emergency.
- Perform both medical and surgical treatment of common oral soft tissue diseases.
- Perform simple surgical procedures: extraction of erupted temporary and permanent teeth, fractured or retained roots, and uncomplicated surgical extraction of non-erupted teeth and simple preprosthetic surgery procedures.
- Treat dentoalveolar trauma in permanent and temporary dentition.
- Assess and treat the patient with caries or other non-carious dental pathology and be able to use all the materials aimed at restoring the shape, function and aesthetics of the tooth in patients of all ages.
- Operatively treat destructive processes and traumatic dento-alveolar injuries.
- Perform endodontic treatments and apply procedures to preserve pulp vitality.
- Carry out the oral treatment of the infant patient and recognize its characteristics and peculiarities.
- Plan, determine the specific characteristics of design, registration, prescription, clinical tests, placement and clinical adjustment for commissioning of fixed and removable space maintainers, as well as interceptive orthodontic techniques and removable active elements intended to displace teeth or correct cross bites.

Transversal competences:

- Problem resolution.
- Decision making.
- Organizational and classification capacity.
- Capacity for analysis, synthesis and oral and written communication.
- Ethical commitment.
- Critical thinking.
- Skills in interpersonal relationships (teamwork with an interdisciplinary character and recognition of diversity and multiculturalism).
- Motivation for quality.
- Autonomous Learning.
- Adaptation to new situations and initiatives.
- Creativity and entrepreneurial spirit.

### 2.2. Learning goals

**The student, to pass this subject, must demonstrate the following results:**

- Interpret aspects of the child's general and evolutionary development, taking into account the influence of the natural and social environment, in order to diagnose normality or abnormality in relation to the child's oral health.
- Analyze the normal evolution of the dental arches, their growth, dental turnover and occlusion.
- Diagnose and propose a treatment plan for childhood oral pathology.
- Establish a differential diagnosis as well as a treatment plan.
- Evaluate through clinical examination and complementary tests, the signs of dental pathology.
- Adequately assess the patient's requirements in relation to the proposed treatment.
- Develop the necessary skills to carry out the indicated treatment.
- Apply the principles of child psychobiology necessary to obey the cooperation of the patient in dental treatment.
- Apply the knowledge of the other subjects, to carry out a comprehensive diagnosis of the child, ranking their needs and planning the treatment sequence.

### **2.3.Importance of learning goals**

In a context of degrees aimed at acquiring own expert skills, the learning outcomes represent the realization of a level of mastery of some of these skills, demonstrating observable action or performance.

A competition has a potentially infinite development perspective. The learning result identifies what, specifically, the student will know how to do at the end of the process.

From what has been exposed so far, the learning results that are intended to be achieved through the development of the subject are presented:

- The student must know the particularities of the treatment and communication with the child patient of different ages and be able to get their collaboration.
- Obtain a good examination and complementary tests, when necessary, to complete a medical history that reflects the child's oral situation.
- Prepare a treatment plan ordering the aspects in which it will be necessary to intervene and how to maintain and improve oral health.
- Acquisition of theoretical knowledge regarding the characteristics of health and disease and the treatments that can be applied to treat the disease.
- The student will learn how to handle children patients of different ages from the dental point of view, acquiring the knowledge and basic skills in the clinic that will ensure a good use of the Children's Practicum that must be done in the 5th year.

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

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

Due to the exceptional situation in which we find ourselves by the COVID-19 pandemia, and given the changing situation, two forms of evaluation are presented:

Type A) in case of ordinary situation.

Type B) in case of interruption of classes (theoretical / face-to-face) due to the worsening of the population health situation.

Regardless of the two assessment options, the student must demonstrate that they have achieved the expected learning outcomes through the following assessment activities.

#### **BREAKDOWN OF TYPE A EVALUATION**

Assessment is an uninterrupted assessment process throughout the learning period in which the various aspects of the student's work will be taken into account.

To extract the final grade for the course, the following will be assessed:

- Regular attendance at theory classes and active participation in them.
- Compulsory attendance at practical classes.
- Individual work of collection of practices (practice notebook).
- Group work.
- Theoretical written exam that will consist of test questions and development questions.
- Pre-clinical and clinical practice.

Thus, we obtain a broad and deep vision that allows us to issue an objective qualification of the student, not only for the result of a test, but for the evaluation throughout the course, after continuous and direct contact with the student.

1. Theoretical part: written exam (40%): Test-type questions (40 in total with five options, with only one answer being correct and 4 reserve questions). To pass the test, you must answer a minimum of 28 questions correctly. Wrong answers do not subtract points. White computes a zero.

2. Group work (15%)

3. Practical part (35%): Assessment of practical activities carried out, attendance at practices and seminars. The evaluation will be continuous taking into account the student's grade as well as her attitude during the development of the same. Attendance is compulsory; Those students who accumulate more than three absences, not justified, will have suspended practices, and will not be able to pass the course.

4. Regular attendance at theoretical classes and debates with active participation in them and practical classes (10%)

To pass the subject it is a fundamental requirement to pass the theoretical written test.

Passing the theoretical test does not imply passing the subject since the assessment percentages described above in the continuous assessment will be applied to obtain the final grade for the course.

#### BREAKDOWN OF TYPE B EVALUATION

1. Attendance and active participation (attitude and aptitude of the student, so it will be necessary to activate the microphone and screen by the students) in face-to-face classes or through telematic sessions-videoconferences on the Google Meet platform (10%).

2. Group work (30%)

- Structure and realization: 15%
- Telematic defense: 15%. The defense will be done in person or telematically on the Google Meet platform. In case it is done electronically, the student who begins the presentation will be in charge of passing all the slides of the exhibition, all the members must participate in the presentation.

3. Practical activities (45%):

- Preparation of a dossier on pulpotomy practice: 15%
- Preparation of a 15% nomenclature sheet (sheet nº17 of the Practice Dossier) and delivery of carved soaps / candles according to the task of the Practice Dossier (deposited with the concierge or by sending images by email).
- Preparation of a clinical record: 15% (where the entire clinical sequence is detailed as precisely as possible, specifying all the necessary material, preparation techniques and clinical preparation, with the support of updated bibliography and reference in the Pubmed, Scopus search engines. and Scielo) of: pit and fissure sealants, on definitive first molars; Class II fillings and reconstructions in two adjacent deciduous molars, class III in the deciduous inferior central incisor and inferior canine, and class IV in the deciduous superior central incisor and superior canine, as well as the placement of preformed crowns in deciduous teeth.

4. Theoretical test (15%): Test type test of 40 questions with four answer options: to obtain the passing grade it is necessary to answer a minimum of 28 answers correctly, the wrong answers do not subtract, the blank answer does not add or subtract. Test completion time: 45 minutes.

To pass the subject it is necessary to pass the theoretical test.

*In case of not doing continuous assessment, you will have to do a theoretical final test type test (face-to-face or on the Moodle platform) and oral exam (face-to-face or on the Google Meet platform, telematically, with recording of answers), as well as present all the practical activities of the subject.*

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

### 4.1. Methodological overview

**The learning process that has been designed for this subject is based on:**

The teaching-learning methodology in this subject is fundamentally based on face-to-face activities of theoretical and practical nature. Part of the content is introduced through a master class, which aims to present the student with the essential and most relevant topics of the subject. During the exhibition, dialogue will be promoted by asking questions, learning based on problems, solving doubts .....

The seminars and case studies and analysis of clinical assumptions will allow the student to become familiar with the critical analysis of information and reasoned decision-making, based on the information acquired.

The practical classes that will be developed first in the preclinical classroom and later in the clinic aim to: firstly equip the student with minimum skills and abilities to access clinical practices with patients and later recognize the peculiar characteristics of oral treatment in the patient and learn the basic aspects of child management in the dental office, establishing an affective communication with the patient and his parents or guardians that allows him to advise the care and follow-up necessary to promote the oral health of the child patient.

Group or individual work, to reinforce autonomous learning.

Tutorials, dedicated to solving doubts and facilitating bibliography, in addition to monitoring group and individual work.

### 4.2. Learning tasks

This course is organized as follows:

- **Lectures.** These sessions pretend to provide the students with the essential and most relevant topics of the course. Active student's participation will be encouraged in order to pose questions, problem-based learning, and solve doubts.
- **Individual and group work.** Work in group or individual, to reinforce autonomous learning.

- **Tutorials.** Dedicated to solve doubts and providing bibliography, as well as keeping track of group and individual works.
- **Preclinical practice sessions.** That will be developed first in the preclinical classroom and then in the clinic aim to: firstly equip the student with minimum skills and abilities to access clinical practices with patients and then recognize the peculiar characteristics of oral treatment in the patient Infant and learn the basic aspects of the child's management in the dental consultation, creating an affective communication with the patient and his parents or guardians that allows him to advise the care and follow-up necessary to promote the oral health of the child patient.
- **Clinical practice sessions:** Students will carry out clinical practice sessions to acquire competencies foreseen in children's patients.

### 4.3.Syllabus

**This course will address the following topics:**

- Topic 1. Introduction to the Pediatric Dentistry
- Topic 2. History and exploration in the child patient
- Topic 3. Radiographic exploration
- Topic 4. Morphology of temporary teeth
- Topic 5. Development and tooth eruption. Primary teeth // Permanent teeth
- Topic 6. Tooth abnormalities
- Topic 7. Development of occlusion and tooth replacement
- Topic 8. Disorders and pathology of eruption
- Topic 9. Preventive Pediatric Dentistry
- Topic 10. Pediatric Dentistry materials
- Tema 11. Dental caries in the child patient
- Topic 12. Treatment of dental caries in the child patient
- Topic 13. Anesthesia in the child patient

### 4.4.Course planning and calendar

**The following chronological sequence is indicative, and may be modified in view of the changing health situation caused by the COVID-19 pandemic.**

Calendar of on-site sessions and presentation of assignments

THEORETICAL PROGRAM WEEK

- 1 TOPIC 1
  - 2 TOPICS 2 AND 3
  - 3 TOPIC 4
  - 4 TOPIC 5
  - 5 TOPIC 6
  - 6 TOPIC 7
  - 7 TOPIC 8
  - 8 TOPIC 9
  - 9 TOPIC 10
  - 10 TOPIC 11
  - 11 TOPIC 12
  - 12 TOPIC 13
  - 13 essay presentation
  - 14 essay presentation
  - 15 REVIEW OF THE course
- TOTAL 37.5 (+13.5 CASES)

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.

Degree website: <https://fccsyd.unizar.es/es/odontologia/grado-odontologia>.

### 4.5.Bibliography and recommended resources

- Odontopediatría / Elena Barbería Leache... [et al.] . 2a. ed., reimpr. Barcelona [etc.] : Masson, 2002.
- Andreasen, J.O. Lesiones dentarias traumáticas / J.O. Andreasen y F.M. Andreasen. Madrid: Editorial Médica Panamericana, 1990.
- Braham, Raymond L. Odontología pediátrica / Raymond L. Braham, Merle E. Morris.. Buenos Aires: Panamericana, 1989.
- Traumatología oral en odontopediatría: diagnóstico y tratamiento integral / [editores] Carlos García Ballesta,

Asunción Mendoza Mendoza. Madrid: Ergon, 2003.

- Odontopediatría : enfoque sistemático / director: Bengt O. Magnusson ; directores adjuntos: Göran Koch, Sven Poulsen ; colaboradores: Anna-Lena Hallonsten et al. Barcelona : Salvat, 1987.
- Odontología pediátrica y del adolescente / [editores:] Ralph E. McDonald, David R. Avery. Madrid: MosbyDoyma, 1995
- Odontología pediátrica / editor principal, J.R. Pinkham. Mexico : McGraw Hill Interamericana, 2001.
- Odontopediatría / editores, Juan R. Boj... [et al.] . Barcelona : Masson, 2010.
- Albers, Harry F.. Tooth-colored restoratives : principles and techniques / Harry F. Albers. Hamilton, Canadá : BC Derek, 2002.
- Spanish Society of Pediatric Dentistry. Protocol for the treatment of trauma to permanent teeth, 2011: <https://www.odontologiapediatrica.com/protocolos/traumatismos-en-denticion-permanente/>
- Spanish Society of Pediatric Dentistry. Protocol for the treatment of trauma to primary teeth, 2011: <https://www.odontologiapediatrica.com/protocolos/traumatismos-en-denticion-temporal/>
- Spanish Society of Pediatric Dentistry. Protocol of diagnosis, prognosis and prevention of early childhood caries, 2019 : <https://www.odontologiapediatrica.com/protocolos/protocolo-de-diagnostico-pronostico-y-prevencion-de-la-caries-de-l>