

1. BASIC INFORMATION

Subject	PEDIATRIC DENTISTRY I
Academic Degree	DENTISTRY
School	HEALTH SCIENCES
Year course	THIRD
ECTS	6 (150 hours)
Credit type	MANDATORY
Language	SPANISH/ENGLISH
Delivery mode	IN-PERSON
Semester	FIRST SEMESTER
Academic year course	2020/2021
Head professors	IRENE REDONDO; PAULA OLIVEROS.

2. PRESENTATION

- It is a theoretical-practical subject, which is an introduction to Pediatric Dentistry as part of Dentistry.
- Provides knowledge for optimal oral health care for children and adolescents.
- The subject develops different competences that are necessary together to pre-clinical practice.
- This subject, given on the first semester of the third year of Dentistry, gives a global vision of the oral changes that children experiment during their growth, and at the same time it makes an introduction to the most frequent oral pathology in childhood, caries disease, its etiology, its treatment, and prevention strategies.
- The knowledge and competences developed in this subject will be essential to understand basic aspects of subjects such as Orthodontics and Pediatric Dentistry.
- It will also enable the student to adapt different dental treatments to the pediatric patient.

3. COMPETENCIES and LEARNING OUTCOMES

CORE and GENERAL

GC4. Understand and recognize the social and psychological aspects relevant to the treatment of patients.

GC12. Ability to understand and recognize the normal structure and function of the stomatognathic apparatus, at the molecular, cellular, tissue and organic levels, in the different stages of life.

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

GC22. Ability to prepare an initial diagnostic judgment and establish a reasoned diagnostic strategy, being competent in the recognition of situations that require urgent dental care.

GC25. Ability to 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 a holistic and integrated approach to oral treatment.

GC26. Ability to plan and perform multidisciplinary, sequential and integrated dental treatments of limited complexity in patients of all ages and conditions and patients requiring special care.

GC27. Ability to propose and propose preventive measures appropriate to each clinical situation.

GC30. Ability to 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 an individual and community level.

CC2. That the students know how to apply their knowledge to their work or vocation in a professional manner and possess the skills that are usually demonstrated through the elaboration and defense of arguments and the resolution of problems within their area of study.

CC3: 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.

CC4: That the students can transmit information, ideas, problems and solutions to a specialized and non-specialized public.

CC5: That the students have developed those learning skills necessary to undertake later studies with a high degree of autonomy.

CROSS-CURRICULAR

CC1. Responsibility: That the student is able to assume the consequences of the actions that he / she performs and responds from his / her own actions.

CC3. Awareness of ethical values: The student's ability to feel, judge, argue and act according to moral values in a coherent, persistent, and autonomous way.

CC4. Communicative skills: The student must be able to express concepts and ideas effectively, including the ability to communicate in writing concisely and clearly, as well as speak in public effectively.

CC5. Interpersonal understanding: That the student is able to perform an active listening in order to reach agreements using a style of assertive communication.

CC7. Teamwork: That the student is able to actively participate in the achievement of a common goal, listening, respecting and valuing the ideas and proposals of the rest of his team members.

CC8. Initiative: The student must be able to proactively anticipate proposing solutions or alternatives to the situations presented.

SPECIFIC

SC34 - To carry out basic treatments of the buco-dental pathology in patients of all the ages. Therapeutic procedures should be based on the concept of minimal invasion and a comprehensive and integrated approach to oral-dental treatment.

SC35 - 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 should be competent in establishing a diagnosis, prognosis and development of adequate therapeutic planning, and particularly in orofacial pain, temporo-mandibular disorders, bruxism and other parafunctional habits; Dental and periapical pathology; Buco-dental trauma; Periodontal and peri-implant tissue; Bone pathology of the jaws, soft tissues of the mouth and glands attached; States of partial or total edentation and in the planning of its rehabilitating treatment through denture and mucosal prosthesis, or through dental implants, malposition and / or dental malocclusions and other anatomical or functional alterations of the face or the stomatognathic system and its possible corrections Orthodontic, orthopedic or surgical.

SC36 - To take and interpret radiographs and other procedures based on the image, relevant in dental practice.

SC37 - Make diagnostic models, assemble them and take inter-occlusal records.

SC38 - Determine and identify the aesthetic requirements of the patient and the possibilities of satisfying their concerns.

SC39 - Identify the patient that requires special care, recognizing its characteristics and peculiarities.

SC40 Assess the motor and sensory function of the mouth, maxillaries and appendages.

SC41 Perform limited procedures of invasive diagnostic techniques in soft tissues (biopsies).

SC42 Be competent in the appropriate prescription of drugs, knowing their contraindications, interactions, systemic effects and repercussions on other organs.

SC43 Apply loco-regional anesthesia techniques.

SC44 Prepare and isolate the operative field.

SC45 Identify, assess and respond to medical emergencies and emergencies that may arise during clinical practice and apply cardio-pulmonary resuscitation techniques; manage acute infections, including pharmacological prescription and simple surgical aspects.

SC46 Identify and attend any dental emergency.

SC47 - Perform both medical and surgical treatment of common oral soft tissue diseases.

SC48 - Perform simple surgical procedures: removal of temporary and permanent erupted teeth, fractured or retained roots and uncomplicated surgical removal of non-erupted teeth and simple procedures for pre-prosthetic surgery.

SC49 - Treat dento-alveolar trauma in temporary and permanent dentitions.

SC50 - Treat both pharmacologically and surgically the inflammatory processes of periodontal and / or peri-implant tissues including supra and subgingival periodontal instrumentation techniques.

SC51 - Assess and treat the patient with caries or other non-carious 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.

SC52 - Design, prepare teeth, prescribe, register, perform clinical tests and place and put into service indirect restorations: inlays, veneers or aesthetic laminated fronts and unit crowns.

SC53 - Operatively treat destructive processes and traumatic dento-alveolar lesions.

SC54 - Perform endodontic treatments and apply procedures to preserve pulp vitality.

SC55 - Perform conventional aesthetic procedures from a multidisciplinary perspective.

SC56 - Treat both partial and total edentulism, including biological design (specific design features), dental preparation, obtaining records, clinical tests and adaptation to patients of partial and complete removable prostheses, simple dento-supported bridges and simple prostheses on implants, both removable and fixed, including their «placement» and «commissioning».

SC57 - Prepare the prescriptions of the customized medical devices "dental prostheses" and "orthodontic appliances and dento-facial orthopedics".

SC58 - Perform non-surgical treatment of temporomandibular disorders and oro-facial pain.

SC59 Perform the oral-dental treatment of the infantile patient and recognize its characteristics and peculiarities.

SC60 - Identify and correct oral habits that can cause or exacerbate malocclusions.

SC61 - Plan, determine the specific design characteristics, records, prescription, clinical tests, placement and clinical adjustment for commissioning of fixed and removable space maintainers and interceptive orthodontic techniques as well as removable active elements intended to displace teeth or correct bites crossed.

LEARNING OUTCOMES

- LO1: Know the development, anatomy and nomenclature of both dentitions.
- LO2: Know the child's Cranial and Orofacial development and growth. Be able to diagnose the different craniofacial syndromes and malformations.
- LO3: To know the chronology of eruption, the order of dental replacement and the correct occlusion in temporary, mixed, and permanent dentition.
- LO4: Be able to diagnose the different clinical forms of cavities in Pediatric Dentistry and know how to interpret radiographs. In addition, you must know how to plan and carry out the most appropriate preventive methods of caries disease in each case.
- LO5: Properly manage the behavior of the child patient and know how to apply the different anxiety control techniques.
- LO6: Make a correct medical history oriented to the pediatric patient and its adequate treatment plan

The table below shows the relation between the competencies developed during the course and the envisaged learning outcomes:

Competencies	Learning outcomes
SC: 34, 35, 36, 38, 39.	LO1, LO2.
GC: 12, 14.	LO3, LO4
SC39	LO5
GC: 25, 26, 27. SC: 34, 35, 44, 46.	LO6

4. CONTENT

The **theoretical program will be taught** in the schedule established by the University, except on holidays previously marked in the University Calendar.

There are 4 groups for theoretical lessons to be delivered:

- **T31 (international group): Mondays 15.30-17.30h**
- **M31:** Mondays 10.30-12.30h.
- **M32:** Tuesdays 12:30-14:30h
- **T31-T32:** Wednesdays 17.30-19.30h

Teaching activities: they will be distributed in 2 or more parts:

- Lectures.
- Theoretical-Practical sessions: images, clinical cases, scientific articles.
- Sessions of diagnosis activities, or activities versed on the delivered lesson.
- On-line theoretical-practical sessions.

These activities are organized as 2-hour sessions each school day, carried out in face-to-face, asynchronous, or remote mode.

Several active and collaborative methodologies will be applied in the classroom, aimed at guiding the student in the process of acquiring knowledge and skills through multiple training activities.

These activities may be subject to modifications due to pedagogical reasons. These will be determined by the department and students will be warned of such changes.

The subject is organized on the following topics:

Lesson 1 Introduction to Pediatric Dentistry.

Lesson 2 Morphology of Primary Dentition I: Anterior group anatomy.

Lesson 3 Morphology of Primary Dentition II: Posterior group anatomy.

Lesson 4 Development of occlusion and articulation in deciduous dentition.

Lesson 5 Craniofacial development and growth. Craniofacial anomalies, syndromes and malformations.

Lesson 6. Dental development.

Lesson 7. Dental eruption, shedding physiology and eruption pathology.

Lesson 8. Introduction to Decay in Pediatric Dentistry.

Lesson 9. Exploration and radiographic diagnosis in Pediatric Dentistry.

Lesson 10. Prevention in Pediatric Dentistry (hygiene, diet, fluoride).

Lesson 11 Isolation in restorative pediatric dentistry.

Lesson 12 Pediatric restorative dentistry I: Preventive treatments.

Lesson 13. Pediatric restorative dentistry II: class I and II cavities.

Lesson 14. Pediatric restorative dentistry III: class III, IV, and V cavities.

The practical program will be taught through:

- Practical exercises related to the theoretical contents to complement the student's learning.
- Sessions last 2 hours per week. The pre-clinical practices will be developed in-person sessions.
- Practical exercises and / or short clinical diagnostic imaging sessions.
- Simulator.
- This semester groups timetables are:
 - **T31 (international): Thursdays 17.30-19.30h**
 - **M31:** Fridays 12.30-14.30h
 - **M32:** Fridays 8.30-10.30h
 - **T31-T32:** Mondays 17.30-19.30h

- In blackboard when you access the subject, you can consult in detail the practice and the list of materials that you should use in each of them, as well as the delivery dates and evaluation procedures of each of them.

The student must bring all the necessary material of the practice to be carried out, otherwise it would not be possible to carry out the practice and it would be considered as not presented.

PRACTICES CONTENT:

PRECLINICAL ACTIVITIES, LABORATORY PRACTICE SESSIONS

P1	Presentation + Academic Guide
P2	Soap carving: Upper Temporary Central Incisor.
P3	Soap carving: Upper Temporary First Molar.
P4	Soap carving: Lower Temporary Second Molar.
P5	Nomenclature of Temporary and Permanent Dentition.
P6	Plaque Disclosure Agents and Plaque Indexes
P7	Practical exercise
P8	Alginate Impressions, Fluor applications and Pediatric oral hygiene.
P9	Diet Analysis.
P10	Pits and fissures sealants in teeth 1.6 and 2.6.
P11	Pits and fissures sealants in teeth 3.6 and 4.6.
P12	Caries risk assessment
P13	Simulator

5. TEACHING-LEARNING METHODOLOGIES

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

- Masterclass
- Case method
- Problem based learning
- Knowledge tests
- Preclinical practices
- Personal study
- Tutoring sessions

6. LEARNING ACTIVITIES

Listed below are the types of learning activities and the number of hours the student will spend on each one:

Learning activity	Number of hours
Master classes	50 h
Laboratory practices	40 h
Simulator	10 h
Case/Problem: images seminar	15 h
Practical exercise: images test	15 h

Tutoring sessions	20 h
Total	150 h

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: 1 st Pediatric Dentistry I Partial 2 nd Pediatric Dentistry I Partial	40%: 1st partial 20% 2nd partial 20%
Simulation pre-clinical practices <ul style="list-style-type: none"> Average grade of in-person and online classes (20%) Final practices test (30%) 	50%
Practical exercise	5%
Case/problem	5%
Total	100%

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

7.1. First exam period

To pass the subject in ordinary call you must:

- Attend and register an attendance of 50% of the theoretical and online sessions (no more than 7 absences are allowed), in addition to 80% of the presential preclinical practices (no more than 3 absences are allowed).

If absences occur in theory, it will be considered the student has not reached the necessary skills to pass the subject and will, in the ordinary call, fail the subject, having to take an extra individualized test in the extraordinary call.

If the absences occur in practices, then the student will have failed the subject in ordinary call and will have to come to the extraordinary call to perform as many activities as the teacher determines to recover this part.

- Obtain a score greater than or equal to 5.0 out of 10.0 in each of the following activities:

1. Theoretical knowledge test (40%): it corresponds to 2 written tests of 20 multiple choice questions with a value of 8 points, and 1 short answer question with a value of 2 points.

Each multiple-choice question will consist of 4 possible answers, of which only one is correct. Each incorrect question will deduct 0.4 from the total mark. Unanswered questions do not deduct from the total of the grade.

The student cannot miss any of the tests since they are mandatory.

If a student has not presented himself or has not passed the written test, he will have the possibility of recovering the test in the period of the extraordinary call.

2. Preclinical simulated practices (50%): The grade will be obtained from the average of face-to-face activities that are evaluated and a practical knowledge test (mark greater than or equal to 5). The average grade obtained will have a weight of 20%. In addition, it will be mandatory to take a final practical knowledge test on preclinical practices. It must be passed with a grade equal to or greater than 5. This grade will be 30% of the final grade for the practical part of the subject. The practical exam will consist of a practical test related to the practices carried out during the semester.

Attendance to laboratory practices is COMPULSORY in person. Failure to attend these practices implies failing the practical part of the subject. It is necessary to have the laboratory practices passed independently to be able to make an average with the rest of the evaluable activities.

3. Case / problem (5%):

3.1. It is an evaluable clinical and radiographic **images seminar**. Resolution of clinical cases through images projected in the classroom. It must be passed with a grade greater than or equal to 5. The seminar is mandatory.

In case of having this part (image seminar) failed in the ordinary call, the student will take another test to resolve the case / problem in the Extraordinary Call.

4. Practical exercise (5%): Assessable **written exercise to be carried out in the laboratory**. The student must be able to relate the theoretical concepts learned to carry out a diagnosis and a resolution of the cases raised.

It must be passed with a grade equal to or greater than 5. The test is mandatory.

In the case the student does not take the test or fails it, she/he must retake it during the extraordinary call.

The mention of "Honor Roll" will be awarded to students who have obtained a grade equal to or greater than 9.0. Their number may not exceed five percent of the students enrolled in each subject in the corresponding academic year, unless the number of students enrolled is less than 20, in which case a single Honor Roll may be granted.

7.2. Second exam period

- Obtain a grade equal to or greater than 5 in one or both theoretical knowledge partial tests theoretical and / or practical knowledge that have not been passed in the ordinary call.
- Take the extra individualized practical test in the case of not having passed the ordinary call for exceeding the number of absences allowed in theory and / or laboratory.
- Carry out a case-problem test, in the event of having failed the image seminar, and/or the practical exercise; it must be passed with a grade equal to or greater than 5.
- The activities related to face-to-face practices not passed in the ordinary call must be delivered or those that were not delivered with the corresponding corrections by the teacher.

8. CHRONOGRAM

This section indicates the schedule with delivery dates of assessable activities of the subject:

Assessable activities	Group	Date
Knowledge test First Eliminary Partial (L1-7) (in person)	M31	09.11.2020
	M32	11.11.2020
	T31+T32	11.11.2020
	T31 international	09.11.2020
Case / problem: Images seminar (In-person)	M31	14.12.2020
	M32	09.12.2020
	T31, T32	16.12.2020
	T31 international	14.12.2020
Practical exercise (In-person. Laboratory)	M31	06.11.2020
	M32	06.11.2020
	T31+32	02.11.2020
	T31 international	29.10.2020
Knowledge test 2nd Partial (L8-14) and practical test		25.01.2021

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

- Boj JR, Catalá M, Garcia Ballesta C, Mendoza A, Planells P, Cortés O. (2019). **Odontopediatría. Bebés, niños y adolescentes**. 1ª Ed. Barcelona: Ed Odontología Books. 1ª edición.
- Boj JR, Catalá M, Garcia Ballesta C, Mendoza A. (2011). **Odontopediatría. La evolución del niño al adulto joven**. Barcelona: Ed Masson.
- Van Waes HJM, Stöckli PW. (2001). **Atlas de Odontología Pediátrica**. Barcelona: Ed Masson. 1ª edición.
- Koch. (2017). **Pediatric Dentistry. A clinical Approach**. ester, West Sussex, UK; Ames, Iowa: John Wiley & Sons. 3th edition.

RECOMMENDED BIBLIOGRAPHY

- Pinkham. (2019). **Pediatric Dentistry: infancy through adolescence**. Philadelphia, PA: Elsevier. 6th edition.
- McDonald & Avery's. (2016). **Dentistry for the Child and Adolescent**. St. Louis, Missouri: Elsevier. 10th edition.
- Cameron A, Widmer R. (2008). **Handbook of Pediatric Dentistry**. Ed Mosby Elsevier.
- Policies & Guidelines - American Academy of Pediatric Dentistry, <http://www.aapd.org/policies>
- Dental Trauma Guide <http://www.dentaltraumaguide.org>
- Andreasen J.O. (2011). **Traumatic Dental Injuries: A Manual**. Chichester, West Sussex, UK: Wiley-Blackwell. 3th edition.
- Nelson, S.J. (2015). **Wheeler's dental anatomy, physiology, and occlusion**. St. Louis, Missouri: Elsevier Saunders
- SESPO. (2000). **Flúor 2000. Actualidad, dosificación y pautas de tratamiento**. Editorial Promolibro.
- SESPO. (2006). **Uso de antimicrobianos en odontología**. Ed. Promolibro.

- Axelsson P. (2000). **Diagnosis and Risk Prediction of Dental Caries**. Chicago: Quintessence Pub. Co.

In addition, the student will be given other materials that will be available in Blackboard.

It is a dynamic bibliography that will be adapted, on a minimum, to the requirements and interests of the students.

Given the change in privacy regulations, etc., it may only be possible to provide students with links for the development of the various activities.

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.