

1. BASIC INFORMATION

Course	Pediatric Dentistry III	
Degree program	Degree in Dentistry	
School	Faculty of Biomedical and Health Sciences	
Year	Fourth	
ECTS	3 ECTS	
Credit type	Mandatory	
Language(s)	Spanish/English	
Delivery mode	Presential	
Semester	First semester	
Academic year	2024/2025	
Coordinating professor	Luz Torres Moreta	
Professor	Irene Real y Ana de la Hoz	

2. PRESENTATION

Pediatric Dentistry III is a subject in the fourth year of the degree in Dentistry that takes place in the first semester, with a value of 3 ECTS.

This subject, which is compulsory within the Degree, provides basic and specific training on pediatric patients in the field of Dentistry, providing a global idea of the child and also delving into specific knowledge related to the subject, such as the management of behaviour, the peculiarities of pharmacological treatment, the characteristics of craniofacial growth and other essential aspects for the training of the dentist and their future professional activity, focusing the subject on obtaining sufficient knowledge and understanding of the most relevant pathologies associated with paediatric patients and their competence to apply this information to clinical situations.

In the planning of the subject, it will be essential to respect a logical order in the student's learning. The planning of the Pediatric Dentistry syllabus clearly defines the general and specific competencies appropriate for developing the different levels of learning.

The subject is taught in Spanish and English given the marked international character of the European University of Madrid; this provides students with sufficient tools to achieve a level of knowledge that will allow them to develop their professional work internationally.

The ECTS for this subject includes hours of work with the lecturer (lectures, seminars, case studies, problem-based learning, directed work, presentations, tutorials, simulation of clinical situations, etc.) as well as hours of personal work dedicated to study. All of this will enable future graduates to acquire the necessary knowledge regarding the preventive treatment, diagnosis and therapy of child patients.

3. COMPETENCIES AND LEARNING OUTCOMES

Core competencies:

- BC3 That students have the ability to gather and interpret relevant data (normally within their area of study) in order to make judgements that include reflection on relevant social, scientific or ethical issues.
- BC4 Students are able to transmit information, ideas, problems and solutions to both specialist and non-specialist audiences.
- BC5 That students have developed those learning skills necessary to undertake further studies with a high degree of autonomy.

Cross-curricular competencies:

- TC1. autonomous learning: A process that allows a person to be the author of their own development, choosing the paths, strategies, tools and moments that they consider most effective to learn and put into practice independently what they have learned. The autonomous student, in short, selects the best strategies to achieve their learning objectives.
- TC3. Ability to adapt to new situations: Be able to work under different conditions, different people and in different groups. It involves valuing and understanding different positions, adapting one's own approach as the situation requires.
- TC4: Ability to analyze and synthesize: Analysis is the method of reasoning that allows complex situations to be broken down into their constituent parts; it also allows other alternatives and perspectives to be evaluated in order to find optimal solutions. Synthesis seeks to reduce complexity in order to better understand it and/or solve problems.
- TC5: Ability to apply knowledge to practice: Ability to use knowledge acquired in academia in situations as close 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 in everyday life, addressing problems and situations close to professional activity or solving real questions and/or problems.
- TC7: 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 commitment to certain social values.
- TC8: Information Management: Ability to search, select, analyze, and integrate information from diverse sources.

Specific competencies:

- CE9. Know the clinical and laboratory diagnostic procedures and tests, know their reliability and diagnostic validity and be competent in the interpretation of their results.
- CE10. Recognize oral normality and pathology, as well as the evaluation of semiology data.
- CE11. Identify the main reason for consultation and the history of the current disease. Take a general medical history of the patient and a clinical record that accurately reflects the patient's records.
- CE12. Know the behavioral and communication sciences that facilitate dental practice.
- CE18. Provide a global approach to oral care and apply the principles of health promotion and prevention of oral diseases.
- CE19. Educate and motivate patients on prevention of oral-dental diseases, control pathogenic oral habits, instruct them on proper oral hygiene, on dietary and nutritional measures and, in short, on all methods of maintaining oral health.
- CE26. Recognize that the patient is the center of attention and that all interactions, including prevention, diagnosis, treatment planning and execution, and maintenance, should be in the patient's best interest, avoiding any type of discrimination and respecting confidentiality. Identify signs and attitudes that suggest the possible existence of mistreatment.
- CE30. To know general and clinical pharmacology in dental practice.
- CE31. Know the pharmacological basis of the different anesthetic techniques, both local and general, as well as the role of sedation and general anesthesia in the management of the dental patient.
- CE32. Know and manage the most frequent emergencies and medical emergencies in dental practice and basic cardiorespiratory resuscitation techniques.

Learning outcomes:

- Properly manage the behaviour of the child patient and know how to apply the different anxiety control techniques.
- Know the cranial and oral-facial development and growth of the child.
- Knowledge and handling of the concepts of evolutionary paediatric dentistry. Individualisation and adaptation of treatment to the specific paediatric patient.

Competencies	Learning outcomes
CE11, CE12, CE19, CE26, CB3, CB4, CB5, CT3, CT5, CT7, CG4, CG21, CG26	RA1. Properly manage the behaviour of the child patient and know how to apply the different anxiety control techniques.
CE10, CE11, CE18, CE19 CB4, CB5 CT1, CT4, CT5, CT8 CG12, CG14, CG21, CG25	RA2. To know the cranial and oral-facial development and growth of the child. Identify craniofacial anomalies (syndromes).
CE9, CE10, CE11, CE12, CE18, CE19, CE26, CE29, CE32 CB4, CB5 CT3, CT4, CT5, CT7 CG4, CG12, CG14, CG17, CG21, C G25, CG26,CG27	RA3. Knowledge and management of the concepts of Developmental Pediatric Dentistry. Individualization and adaptation of the treatment to the specific child patient.

4. CONTENT

Unit 1. Pain and anxiety management in children

1.1. Behavioral management in pediatric dentistry patient I

- General concepts about fear/anxiety
- Psychological development of the child. Characteristics of the child according to age
- Determining factors of treatment

1.2. Behavioral management of pediatric dentistry patients II

- Concept of potentially uncooperative child
- Objectives of behavior management
- Pediatric dentistry patient management techniques

1.3. Local anesthesia in the pediatric patient

- Characteristics of local anesthetics
- Pharmacodynamics of anesthetics in children.
- Concept.
- Techniques of anesthesia in the pediatric patient

1.4. General anesthesia in children

- Concept.
- Child patients susceptible to general anesthesia.
- General anesthesia protocols in pediatric dentistry. Pre and postanesthetic measures.

1.5. Pharmacology in pediatric dentistry

- Pharmacokinetics and pharmacodynamics in pediatric patients.
- Antibiotics most commonly used in pediatric dentistry.
- Analgesics and anti-inflammatory drugs most frequently used in pediatric patients.

1.6. Sedation and premedication in pediatric dentistry

- Concept.
- Child patients susceptible to premedication.
- Premedication protocols in pediatric dentistry: Most commonly used drugs.

Unit 2. Craniofacial growth. Syndromes with craniofacial repercussion.

2.1. Preliminary growth concepts

- Importance of the study of growth in the pediatric patient.
- Concept of growth, development and maturation.
- Factors that influence the growth pattern.

2.2. Craniofacial growth process I

- Growth Movements: Reshaping and Displacement
- Functions of Reshaping
- Types of displacement

2.3. Craniofacial growth process II

- Growth of the skull vault and base of the skull
- Maxillary and mandibular growth

2.4. Prenatal cranial development

- General concepts
- Embryological development of the craniofacial structure
- Formation of the face

2.5. Facial growth along the face. Facial types

- Extreme face types
- Ideal male and female pattern
- Evolution of the face throughout life

2.6. Mechanisms of craniofacial growth regulation.

- Current theories explaining craniofacial growth
- Regulation mechanisms

2.7. Syndromes and craniofacial malformations I

- Concept of syndrome
- Syndromes with autosomal dominant inheritance

2.8. Syndromes and craniofacial malformations II

- Syndromes with sex-linked inheritance
- Syndromes with autosomal recessive inheritance
- Chromosomopathies

Unit 3. Developmental Pediatric Dentistry

3.1. The child from 0 to 3 years of age

- General characteristics
- Behavior management techniques

3.2. The child from 3 to 6 years of age

- General characteristics

- Management techniques

3.3. The child from 6 to 9 years of age

- General characteristics
- Management techniques

3.4. The child from 9 to 12 years of age

- General characteristics
- Management techniques

5. TEACHING-LEARNING METHODOLOGIES

The types of teaching-learning methodologies that will be applied are listed below:

- Master classes
- Case analysis
- Practical exercises
- Group participatory activities
- Simulated hospital activities
- Knowledge tests (presential theoretical objective evaluation)

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	20
Master asynchronous classes	4
Case analysis	8
Practical exercises	6
Group activities (group methodologies/ simulated hospital)	23
Autonomous work	10
Academic tutoring	4
Presential evaluation tests	20
TOTAL	75

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	70%
Case analysis/practical exercises	20%
Group methodologies	10%
Simulated Hospital	Attendance

In the Virtual Campus, when you access the course, you will be able to consult in detail the evaluation activities to be performed, as well as the due dates and evaluation procedures for each of them.

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.

REGULATIONS FOR THE ASSESSMENT OF ACCREDITED UNDERGRADUATE DEGREES AT UNIVERSIDAD EUROPEA DE MADRID

CHAPTER I. COURSE ASSESSMENT SYSTEM FOR ACCREDITED UNDERGRADUATE DEGREES

Article 1 - 4. Continuous assessment

Students taking campus-based studies are required to demonstrate that they have attended at least 50% of their classes. Such attendance forms an essential part of the assessment process and is necessary to give the student the right to receive guidance, assistance and academic supervision from the professor. For such purposes, students must use the technological system put in place by the University to accredit their daily attendance at each of their classes. This system shall furthermore ensure that objective information is gathered regarding the active role of the student in the classroom. The failure to use the methods proposed by the University to demonstrate 50% attendance will give the professor the right to grade the course as a fail under the ordinary exam period. The foregoing does not affect other requirements of higher attendance percentages that each school may establish in their teaching guides or internal regulations.

Therefore, it is the authority of the professor that students who have not fulfilled the 50% of attendance in the ordinary call must pass all the evaluation tests in the extraordinary call, for which they must obtain a grade greater than or equal to 5.0 out of 10.0 in all of them (Faculty Board 11-07-23).

Article 6 - 12. Final grades

Any student that uses or benefits from unlawful means during an evaluation test or that unduly attributes the author of the academic work required for the assessment will be graded as a "fail" (0) and may similarly be the object of a sanction, subject to the opening of disciplinary proceedings. In the case of the Final Graduation Project, the plagiarism or the lack of originality of the project, will automatically be graded as a "fail" (0) in the corresponding

course in both ordinary and extraordinary periods. Likewise, the student will lose their status as a student during six months according with the General Standards for Graduation Projects and Master's Thesis in its Article 5.

7.1. First exam period

In order to pass the course in ordinary call it is necessary to obtain a final grade equal or higher than 5, which will be obtained from the sum of the grades obtained in the different evaluable activities (practical exercises, case analysis, group participatory activities and objective theoretical test).

Each activity of the course must be passed independently of the others, being necessary to obtain a grade higher or equal to 5.0 out of 10.0 in each one of them.

Both the theoretical classes and all the activities (practical exercises, case analysis, etc.) will be face-to-face in the classroom. The date of all of them will be reflected in the corresponding timetable of the course. It will be necessary to attend at least 70% of the theory classes and to carry out 70% of the practical exercises and case analysis in the classroom in PRESENCE to consider this part of the course passed.

Group activities must be passed with a grade of 5 or higher. Attendance to the activities in the simulated hospital, as well as to all the presentations given in the classroom is compulsory. In no case can a part of the course be compensated with the grades obtained in the other parts.

7.2. Second exam period

To pass the course in the extraordinary call it is necessary to obtain a final grade equal or higher than 5 in each of the parts of the course that have not been passed in the ordinary call (practical exercises, case analysis, presentations and group participatory activities and objective theoretical test). All recovery activities will be carried out presential in the classroom. Each activity of the course must be passed independently of the others, with a grade higher or equal to 5.0 out of 10.0, being necessary to attend the entire follow-up period. In no case a part of the course can be compensated with the grades obtained in the others.

The teacher will indicate in time and form what must be done and how each student must do it in order to recover the failed parts.

The teacher will indicate in due time and form the activities to be performed by each student in order to recover the parts not passed in the ordinary exam.

8. SCHEDULE

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

Evaluable activities	Date
Activity 1. Practical exercise. Child behavior management I	Week 2
Activity 2. Practical exercise. Child behavior management II (video)	Week 3
Activity 3. Practical exercises. Local anesthesia	Week 4
Activity 4. General anesthesia (video)	Week 5
Activity 5. Practical exercises. Pharmacology	Week 6

Activity 6. Practical exercises/clinical cases) Sedation and premedication.	Week 7
Activity 7. Practical Exercises/ Craniofacial growth I	Week 8
Activity 8. Practical Exercises/ Craniofacial Growth II	Week 9
Activity 9. Practical Exercises/ Craniofacial Syndromes I	Week 10
Activity 10. Practical Exercises/ Craniofacial Syndromes I	Week 11
Activity 11 Group methodologies. Classroom exposition. Simulated Hospital (not evaluable activity but attendance is mandatory).	Week 12,13,14, 15
Activity 12. Final presential test	Week 17

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. BIBLIOGRAFÍA

The main reference work for this subject is:

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- Additional recommended bibliography corresponding to each of the learning units is indicated below:
- **Learning Unit 1: Pain and Anxiety Management in the Child**
- Barbería E., Boj JR., Catalá M., García Ballesta C., Mendoza A. Odontopediatría. 2ª ed. Ed. Masson. 2001
- Koch G. Odontopediatría. Abordaje clínico. Ed Amolca. 2011
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- Lorena Alarco-Cadillo, Leslie Casas Apayco, Mario Reyes Bossi³, María Cecilia Ramírez Torres. Uso de dos técnicas alternativas de manejo de conducta: musicoterapia y distracción audiovisual, en el control de manejo y ansiedad en pacientes pediátricos de 5 a 10 años. Revista de Odontopediatría Latinoamericana 2017; disponible en: [/www.revistaodontopediatria.org/ediciones/2017/1/art-3/](http://www.revistaodontopediatria.org/ediciones/2017/1/art-3/)

- **García Islas A., Pares Vidrio GE., Hinojosa Aguirre A.** Evaluación de la ansiedad y la percepción de los padres ante diferentes técnicas de manejo de conducta utilizadas por el odontopediatra comparando tres métodos de información. *Revista Odontológica Mexicana* 2007; 11(3): 135-9.
- **Learning Unit 2: Craniofacial growth. Pathologies**
- **Barbería E., Boj JR., Catalá M., García Ballesta C., Mendoza A.** *Odontopediatría*. 2ª ed. Ed. Masson. 2001
- **Koch G.** *Odontopediatría. Abordaje clínico*. Ed Amolca. 2011
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- **Enlow DH., Hans MG.** *Crecimiento Facial*. Ed McGraw-Hill/Interamericana de México. 1998
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- **Heggie AA., Kumar R., Shand JM.** The role of distraction osteogenesis in the management of craniofacial syndromes. *Annals of Maxillofacial Surgery* 2013; 3 (1): 4-10.
- **Learning Unit 3: Developmental Pediatric Dentistry**
- **Barbería E., Boj JR., Catalá M., García Ballesta C., Mendoza A.** *Odontopediatría*. 2ª ed. Ed. Masson. 2001
- **Koch G.** *Odontopediatría. Abordaje clínico*. Ed Amolca. 2011
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10. EDUCATIONAL GUIDANCE AND DIVERSITY 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.