

**COURSE DATA****DATA SUBJECT**

**Code:** 34722  
**Name:** Odontopediatrics  
**Cycle:** Undergraduate Studies  
**ECTS Credits:** 12  
**Academic year:** 2025-26

**STUDY (S)**

Degree	Center	Acad. year	Period
1206 - Degree in Dentistry	Facultat de Medicina i Odontologia	4	Annual

**SUBJECT-MATTER**

Degree	Subject-matter	Character
1206 - Degree in Dentistry	Paediatric dentistry	COMPULSORY

**COORDINATION**

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**SUMMARY**

Pediatric Dentistry is a mandatory subject composed of a theoretical and a practical component which are included in the Pathology and Dental Therapeutics module, with assigned 12 credits.

This subject expects the student to acquire the special handling and communication skills necessary to treat the pediatric patient of different ages, so he or she can obtain the cooperation of the patient and to be able to accomplish a good oral examination and the complementary tests required; to fill a clinical record that reflects the current dental situation of the child and to establish a treatment plan to maintain or improve their oral health.

At the same time the student has to learn the meaning of oral health and oral pathology in the pediatric patient and, furthermore, the existing evidence-based treatment options to solve the pathology.

This subject is offered in the fourth year as the student needs to be prepared to perform restorative treatments learned in the previous years of the Dentistry Grade.



Pediatric dentistry will allow the student to learn the basic knowledge and clinical skills required to handle the growing child and to prepare for the "Practicum Infantile" taken during the fifth year.

## PREVIOUS KNOWLEDGE

### RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

#### 1206 - Degree in Dentistry

Obligation to have previously passed the subject(s)

34715 - Oral surgery

34718 - Dental pathology, conservative dentistry and endodontology

### OTHER REQUIREMENTS

## COMPETENCES / LEARNING OUTCOMES

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Aplicar técnicas de anestesia loco-regional.

Comprender y reconocer los aspectos sociales y psicológicos relevantes al tratamiento de pacientes.

Educar y motivar a los pacientes en materia de prevención de las enfermedades buco-dentarias, controlar los hábitos bucales patogénicos, instruirlos sobre una correcta higiene bucal, sobre medidas dietéticas y nutricionales y, en resumen, sobre todos los métodos de mantenimiento de la salud bucodental.

Identificar el principal motivo de consulta y la historia de la enfermedad actual. Realizar una historia clínica general del paciente y una ficha clínica que refleje fielmente los registros del paciente.

Identificar hábitos bucales susceptibles de causar o exacerbar maloclusiones.

Identificar los signos y actitudes que sugieran la posible existencia de malos tratos.

Realizar el tratamiento buco-dental del paciente infantil y reconocer sus características y peculiaridades.

Realizar procedimientos quirúrgicos sencillos: extracción de dientes temporales.

Realizar tratamientos básicos de la patología buco-dentaria en pacientes de todas las edades. Los procedimientos terapéuticos deberán basarse en el concepto de invasión mínima y en un enfoque global integrado del tratamiento buco-dental.

Saber identificar las inquietudes y expectativas del paciente, así como comunicarse de forma efectiva y clara, tanto de forma oral como escrita, con los pacientes, los familiares, los medios de comunicación y otros profesionales.

Tomar e interpretar radiografías y otros procedimientos basados en la imagen, relevantes en la práctica odontológica.

Tratar traumatismos dento-alveolares en denticiones temporal y permanente.



## DESCRIPTION OF CONTENTS

### THEORY

- 1. Introduction to Paediatric Dentistry.** Concept. Historical evolution. Core areas of the discipline. Interdisciplinary relationships. Course structure.
- 2. Morphology of Primary Teeth.** Dental terminology and notation. Maxillary and mandibular incisors. Maxillary and mandibular canines. First maxillary and mandibular molars. Second maxillary and mandibular molars.
- 3. Additional Morphological Considerations.** Specific characteristics of young permanent teeth. Differences between primary and permanent dentition. Occlusal development.
- 4. Radiographic Examination in Paediatric Dentistry.** Types of imaging. Indications. Methodology. Common errors. Diagnostic value.
- 5. Dental Caries in Children.** Predisposing factors. Epidemiology. Susceptible areas. Specific clinical presentations. Differential diagnosis. Caries detection. Lesion progression.
- 6. Operative Procedures in Primary Teeth.** General considerations for restorative procedures in primary teeth. Concept of effective restoration. Nature and clinical use of materials in paediatric dentistry.
- 7. Management of Occlusal Carious Lesions in Posterior Teeth.** Cavity designs according to the materials used.
- 8. Management of Proximal Carious Lesions in Posterior Teeth.** Cavity designs according to the materials used.
- 9. Restoration of Occlusal and Proximal Surfaces.** Clinical protocols for restoring occlusal and proximal surfaces according to the chosen materials.
- 10. Early Childhood Caries.** Aetiology, diagnosis, prevention, and treatment.
- 11. Management of Carious Lesions in Anterior Teeth.** Cavity design. Restorative materials and filling techniques.
- 12. Semiology of Pulp Involvement.** Diagnosis, aetiology, and pathogenesis of pulp disorders. Septal syndrome. Reversible pulpitis. Irreversible pulpitis. Indirect and direct pulp protection.
- 13. Conservative Pulp Therapy.** Principles of conservative pulp treatment. Stepwise excavation. Indirect



pulp capping. Direct pulp capping.

**14. Pulp Therapy in Primary Dentition.** Pulpotomy or partial pulpectomy: indications, contraindications, and technique. Pulpectomy: indications, contraindications, and technique. Potential problems with formocresol use and alternatives.

**15. Pulp Therapy in Immature Permanent Teeth.** Apexogenesis and apexification: concepts, indications, techniques, and alternative approaches.

**16. Preformed Crowns.** Types and characteristics of crowns. Indications. Preparation and placement techniques. Evaluation.

**17. Prevention in Paediatric Dentistry.** Importance and clinical application of caries risk assessment. Risk-based preventive strategies. Periodontal risk assessment in adolescents.

**18. Fissure Sealants and Preventive Resin Restorations in Young Permanent Teeth.** Indications, types, materials, and methods.

**19. Physiology of Eruption of the Primary Dentition.** Overview of tooth development. Eruption phases. Chronology and sequence. Tooth replacement.

**20. Pathologies Associated with Eruption and Tooth Exfoliation.** Concepts of premature and delayed eruption. Other eruption-related conditions. Root resorption and exfoliation of primary teeth. Conditions leading to early exfoliation.

**21. Traumatic Dental Injuries in Children and Adolescents.** Aetiology. Epidemiology. Classification and diagnosis. Prevention. Management of dental trauma emergencies.

**22. Trauma in Primary Dentition I.** Clinical features, treatment, and prognosis of traumatic injuries in primary teeth.

**23. Trauma in Primary Dentition II.** Clinical features, treatment, and prognosis of traumatic injuries in primary teeth.

**24. Trauma in Young Permanent Teeth I.** Clinical presentation, management, and prognosis of injuries involving hard tissues and the pulp.

**25. Trauma in Young Permanent Incisors II.** Clinical presentation, management, and prognosis of injuries to the periodontal ligament.

**26. Pain Control in Children and Adolescents.** Local anaesthesia: indications, materials, and techniques in paediatric dentistry.



- 27. Assessment of Child and Adolescent Behaviour in the Dental Setting.** General behavioural characteristics by age. Dental approach according to age and behavioural profile.
- 28. Evaluation of Child and Adolescent Cooperation in the Dental Surgery.** Variables influencing behaviour. Patient-related, familial, and environmental factors. Behavioural assessment scales.
- 29. Behaviour Typing in the Dental Clinic.** Types of behaviour and responses to specific situations.
- 30. Behaviour Management in Paediatric Dentistry.** Behavioural techniques and preventive strategies.
- 31. Physiological Principles and Drug Prescribing in Paediatric Dentistry.** Guidelines for prescribing commonly used medications.
- 32. Dental Developmental Anomalies.** Terminology of anomalies in number, size, shape, colour, and position. Diagnosis and management.
- 33. Enamel Developmental Defects.** Classification. Aetiopathogenesis, diagnosis, and treatment of non-hereditary enamel defects.
- 34. Molar-Incisor Hypomineralisation Syndrome.** Diagnosis, aetiopathogenesis, clinical features, and treatment.
- 35. Hereditary Enamel Defects.** Aetiopathogenesis, diagnosis, and treatment. Clinical implications for the paediatric patient.
- 36. Dentin Disorders.** Classification, aetiopathogenesis, diagnosis, and treatment of hereditary dentine anomalies.
- 37. Management of Complex Lesions in Young Permanent Molars.** Definition, extent, restorative considerations, and material selection.
- 38. Evaluation of Common Surgical Indications in Children and Adolescents.** Tooth extractions in paediatric patients: materials and techniques. Indications for surgical extractions. Minor oral surgery: patient preparation and limitations.
- 39. Periodontal Diseases in Children and Adolescents.** Features of gingiva in different stages of development. Plaque-induced gingivitis: assessment and treatment. Periodontitis: clinical forms in paediatric patients.
- 40. Oral Pathology in Paediatric Dentistry.** Lesions affecting oral mucosa, tongue, lips, and palate.
- 41. Paediatric Dentistry for Children with Special Health Care Needs: Systemic Conditions**



**42. Tooth Loss in Childhood I**

**43. Tooth Loss in Childhood II**

**44. Child Abuse and Neglect.** Abuse and neglect and their implications for paediatric dentistry. Identification of warning signs. Community information and protection services.

**45. Paediatric Dentistry in Children with Special Needs: Psychological and Sensory Disorders.** Impact of disability on oral health. Clinical approach to dental care in different conditions.

**46. Medical Emergencies**

**WORKLOAD**

**PRESENCIAL ACTIVITIES**

Activity	Hours
Theory	52,00
Odontology practices	50,00
Laboratory	64,00
Classroom practices	14,00
<b>Total hours</b>	<b>180,00</b>

**NON PRESENCIAL ACTIVITIES**

Activity	Hours
Attendance at other activities	0,00
Individual or group project	5,00
Independent study and work	55,00
Preparation of lessons	50,00
Preparation for assessment activities	0,00
Resolution of case studies	10,00
<b>Total hours</b>	<b>120,00</b>

**TEACHING METHODOLOGY**

The teaching and learning methodology in this subject is based on face-to-face theoretical and practical onsite activities.

Some of the content is introduced through lectures, which aim to present students with the essential and most relevant topics of the course.

Simulated laboratory practices using models are designed



to provide students with the skills and abilities needed to treat pediatric patients in the clinic.

Virtual activities will also be integrated, focusing on the development of clinical reasoning, differential diagnosis, and decision-making skills, through tools based on virtual simulation (HVRs), specifically adapted to the context of Paediatric Dentistry.

Seminars and the study and analysis of clinical case scenarios will enable students to familiarize with critical analysis of the information and the reasoned decision-making using the information provided

Clinical practice in this subject is carried out with pediatric patients and under an assistant professor supervision. Their goal together with the above mentioned methodologies are that the students recognizes the particularities of the dental treatment in paediatric patients and learns the basic aspects of managing children in the dental clinic, establishing effective communication with the child and their parents or guardians, so that appropriate advice can be given regarding oral healthcare and necessary follow-up.

The direct and necessary supervision of the student during these clinical practices involving paediatric patients fosters the student's ability to resolve doubts and overcome learning gaps, allowing for ongoing support beyond the scheduled tutorial sessions.

Participation in service-learning (S-L) projects will be offered (ApS).

The gender perspective, the respect for diversity, and the Sustainable Development Goals (SDGs) will be incorporated into teaching whenever possible.

## EVALUATION

Each unjustified absence from mandatory activities will result in a deduction of 5 points out of 100 from the final grade.

The final exam accounts for 60% of the overall mark.



The assessment of clinical practice accounts for 20% of the final grade and is based on continuous assessment, skills acquired, procedures carried out, and compliance with clinical practice rules (unjustified absences subtract 5 points). Wrong attitude, lack of interest, unpunctuality, non-compliance with the established recommendations in patient care, and not scoring information in digital Records will result in failing the practice in which it occurs, and specially If such behaviours are repeated,

the student may be excluded from clinical practice for the remainder of the course.

A positive evaluation of practical sessions is required to be eligible for the final assessment.

Continuous assessment, based on attendance at all scheduled activities, observation of the student's attitude and progress, and coursework completed throughout the academic year, accounts for 10% of the final grade. The mark obtained in the Preclinical course, if passed, contributes 10% to the final grade.

Attendance at practical activities is mandatory. A student is considered to meet this requirement if he or she has attended a minimum of 80% of these activities and has adequately justified the impossibility of attending the remaining sessions due to the occurrence of a cause of force majeure. It will be essential to comply with this requirement to pass the course.

To be eligible for an early examination session, students must have successfully completed all required clinical practice.

Students are reminded of the importance of completing the evaluation surveys for all teaching staff in this subject.

## REFERENCES

### BÁSICAS

Boj J.R., Catalaç M., Mendoza A., Planells P., Cortés O. (2019) Odontopediatría Bebés, Niños y Adolescentes. Ciudad de Méjico. Odontología Books (Libro de referencia).

- ¿ RECURSOS e-Salut:
  - ClinicalKey Student Medicina, Odontologia y Enfermería [ <https://uv-es.libguides.com/RecursosSalut> ]
  - Acces Medicina [ [https://uv-es.libguides.com/Access\\_Medicina](https://uv-es.libguides.com/Access_Medicina) ]
  - Médica Panamericana [ [https://uv-es.libguides.com/Medica\\_Panamericana](https://uv-es.libguides.com/Medica_Panamericana) ]



## COMPLEMENTARIAS

- Fuks A.B., Peretz B.. (2016). **Pediatrics Endodontics. Current Concepts in Pulp Therapy for Primary and Young Permanent Teeth.** Springer.
- Schwendicke F. (2018). **Management of Deep Carious Lesions.** Springer
- Cameron AC, Widmer RP (2013) **Handbook of Pediatric Dentistry** 4th ed.. Elsevier Mosby
- Cameron AC, Widmer RP (2010) **Manual de Odontología Pediátrica.** Elsevier Mosby
- Odontología Pediátrica. [www.odontologiapediatrica.com](http://www.odontologiapediatrica.com)
- **American Academy of Pediatric Dentistry.** <https://www.aapd.org/research/oral-health-policies--recommendations/>
- **European Academy of Paediatric Dentistry.** [www.eapd.eu](http://www.eapd.eu)