COURSE DATA

DATA SUBJECT

Code: 36249
Name: Practicum I in Paediatric Patients
Cycle: Undergraduate Studies
ECTS Credits: 10
Academic year: 2025-26

STUDY (S)

Degree	Center	Acad. year	Period
1206 - Degree in Dentistry	Facultat de Medicina i Odontologia	5	Indefinite (Individuals)

SUBJECT-MATTER

Degree	Subject-matter	Character
1206 - Degree in Dentistry	Prácticas clínicas tuteladas	INTERNSHIPS

COORDINATION

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SUMMARY

The subject Child Patient Practicum forms part of the fifth-year curriculum in the Degree in Dental Medicine.

The student puts into practice all the knowledge acquired during the degree in an integrated, sequential and ordered manner, to:

- Conduct a full dental examination of the child patient.
- Diagnose, plan, make decisions and generally perform multidisciplinary, comprehensive, sequential and integrated treatment on a child patient, including clinical dental techniques and procedure aimed at prevention and restoration of the child patient under the teacher's supervision.

It includes no theoretical content given that this has been covered over the four preceding years of the degree. Clinical seminars will be conducted based on clinic cases. These will be entirely practical.

Students are reminded of the great importance of carrying out evaluation surveys of all the teaching teachers of this subject.

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

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

1206 - Degree in Dentistry

Obligation to have previously passed the subject(s)	34720 - Orthodontics I 34722 - Odontopediatrics

OTHER REQUIREMENTS

COMPETENCES / LEARNING OUTCOMES

1206 - Degree in Dentistry

Acquire clinical experience under appropriate supervision.

Be able to identify the patient's concerns and expectations, and to communicate effectively and clearly, both orally and in writing, with patients, their relatives, the media and other professionals.

Be able to prepare an initial diagnosis and establish a reasoned diagnostic strategy, and to recognise situations requiring urgent odontological attention.

Formulate and recommend appropriate preventive measures for each clinical situation.

Know and be able to apply basic treatments for the most common dental pathologies in patients of all ages. Therapeutic procedures must be based on minimally invasive techniques and on a global and integrated approach to oral healthcare.

Know how to plan and carry out multi-disciplinary, sequential and integrated odontological treatments of limited complexity in patients of all ages and in all conditions, and in patients requiring special care.

Know how to share information with other health professionals and how to work in a team.

Module: Dental Pathology and Therapeutics - Apply loco-regional anaesthesia techniques.

Module: Dental Pathology and Therapeutics - 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 teeth in patients of all ages.

Module: Dental Pathology and Therapeutics - Carry out the oral-dental treatment of child patients and

recognise their characteristics and peculiarities.

Module: Dental Pathology and Therapeutics - Identify and correct oral habits that may cause or exacerbate malocclusions.

Module: Dental Pathology and Therapeutics - Make diagnostic casts, mount them and take interocclusal records.

Module: Dental Pathology and Therapeutics - Manage acute infections, including prescription and simple surgical aspects.

Module: Dental Pathology and Therapeutics - Prepare and isolate the operating field.

Module: Dental Pathology and Therapeutics - Prescribe drugs appropriately, knowing their contraindications, interactions, systemic effects and effects on other organs.

Module: Dental Pathology and Therapeutics - Treat dental-alveolar trauma in temporary and permanent teeth.

Module: Introduction to Dentistry - Identify the main reason for consultation and the history of the current disease. Compile a general medical history of the patient and a medical record that accurately reflects the patient's records.

Module: Introduction to Dentistry - Take dental radiographs, interpret the images obtained and be familiar with other relevant diagnostic imaging techniques.

DESCRIPTION OF CONTENTS

1. TOPIC UNIT 1- DIAGNOSIS IN THE PAEDIATRIC DENTAL CLINIC.

TOPIC 1: Diagnosis in Paediatric Dentistry. The first visit.
TOPIC 2: Diagnostic imaging techniques in Paediatric Dentistry.
TOPIC 3: Handling a childs behaviour.

2. TOPIC UNIT 2- DEALING WITH A CHILDS PAIN.

TOPIC 4: Local anaesthetic. Indications. Anaesthetic techniques. Handling the child when administering anaesthetic. Complications.
Topic 5: Conscious sedation in child patients. Concept and objectives. Pharmacological pre-medication and nitrous oxide sedation.

TOPIC 6: Pharmacology. Medical prescription. Practical guide to the use of antibiotics and analgesics in

3. TOPIC UNIT 3- PHARMACOLOGY IN CHILDREN AND HANDLING A CHILD UNDERGOING MEDICATION.

paediatric dentistry.
TOPIC 7: Handling a child undergoing medication. Part One. Alterations to the haemostasis. Leukemia. Diabetes.
TOPIC 8: Handling a child undergoing medication. Part Two. Viral hepatitis. HIV. Prophylaxis of bacterial endocarditis. Asthma. Coeliac disease.

4. TOPIC UNIT 4- STERILISATION IN THE PAEDIATRIC CLINIC.

TOPIC 9: Sterilisation and asepsis in the operating field. Controlling contamination; isolation and disinfection of caries.
TOPIC 10: Sterilisation and asepsis of instruments and material in the clinic. Protocol for action against accidental needle pricks.

5. TOPIC UNIT 5- RESTORATIVE DENTISTRY IN THE PAEDIATRIC CLINIC.

TOPIC 11: Prevention in paediatric dentistry. Risk of caries. Fluoride. Chlorhexidine. Xylitol. Sealing caries and cracks.
TOPIC 12: Restorative dentistry in deciduous teeth. Types of material used. Indications. Clinical cases.
TOPIC 13: Preformed crowns in paediatric dentistry. Concept, objectives and types. Clinical handling of deciduous and permanent teeth. Clinical cases.
TOPIC 14: Early appearance of caries. Concept, etiology, prevention and clinical handling.
TOPIC 15: Pulp therapy for deciduous teeth. Diagnosis of pulpal pathology. Techniques and materials employed. Presentation of cases.
TOPIC 16: Pulp therapy for young permanent teeth. Diagnosis. Techniques and materials employed. Clinical cases.

6. TOPIC UNIT 6- DENTOFACIAL TRAUMA IN CHILDREN.

TOPIC 17: Trauma in deciduous teeth. Types of fracture and recommended treatment. Consequences in permanent teeth.
TOPIC 18: Trauma in permanent teeth. Types of fracture and recommended treatment. Complications.

TOPIC 19: Oral pathology in paediatric dentistry. Ulcers. Bacterial and viral infections of the oral tissue. Oral mycosis.
TOPIC 20: Teeth anomalies. Part One: alterations in number, shape and colour.
TOPIC 21: Teeth anomalies. Part Two: alterations in hereditary and non-hereditary structures.
TOPIC 22: Orofacial manifestations of significant syndromes. Down Syndrome. Pierre-Robin Syndrome. Ectodermal Dysplasia. Clinical cases.
TOPIC 23: Most common cystic and tumour pathology in children. Clinical cases.

7. TOPIC UNIT 7- MEDICAL AND SURGICAL PATHOLOGY IN CHILDREN.

TOPIC 19: Oral pathology in paediatric dentistry. Ulcers. Bacterial and viral infections of the oral tissue. Oral mycosis.
TOPIC 20: Teeth anomalies. Part One: alterations in number, shape and colour.
TOPIC 21: Teeth anomalies. Part Two: alterations in hereditary and non-hereditary structures.TOPIC 24: Periodontal disease in child patients. Gingivitis and juvenile periodontitis.
TOPIC 25: Surgical treatment in paediatric dentistry. Extracting deciduous teeth. Techniques and necessary material. Complicated extractions: anchylosis, supernumeraries.

8. TOPIC UNIT 8- INTERCEPTIVE DENTISTRY IN THE PAEDIATRIC CLINIC.

TOPIC 26: Diagnosis in dentistry. Part One: Analysing models. Analysis of the sagittal, vertical and transverse planes. Occlusal analysis. Bolton index.
TOPIC 27: Diagnosis in dentistry. Part Two: Interpreting orthopantomograms.
TOPIC 28: Diagnosis in dentistry. Part Three: Cephalometric diagnosis. Cephalometric methodology of Steiner and Ricketts.
TOPIC 29: Diagnosis and interceptive treatment of anomalous oral habits in children. Anomalous deglutition. Buccal respiration. Thumb and dummy sucking. Labial interposition.
TOPIC 30: Handling space. Recommendations, techniques and types of braces.
TOPIC 31: Diagnosis and interceptive treatment of transverse malocclusions. Dentoalveolar expansion. Disjunction.
TOPIC 32: Diagnosis and interceptive treatment of vertical malocclusions. Open bite. Overbite.
TOPIC 33: Diagnosis and interceptive treatment of Class II anteroposterior malocclusions. Functional braces.
TOPIC 34: Diagnosis and interceptive treatment of Class III anteroposterior malocclusions. Orthopaedic braces.
TOPIC 35: Interceptive orthodontic treatment of deciduous teeth. Type of braces
TOPIC 36: Retention and relapse in orthodontic treatment.
TOPIC 37: How to present a clinical case in orthodontics.

9. TOPIC UNIT 9 TREATMENT OF THE PEDIATRIC PATIENT IN THE HOSPITAL SETTING

TOPIC 38: Dental treatment of the pediatric patient in the operating room. Indications and procedures.
TOPIC 39: Management of the surgical environment in pediatric dentistry. Protocols and specific considerations.

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Clinical dental practice	200,00
Total hours	**200,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours
Independent study and work	25,00
Preparation of supplementary reports	10,00
Preparation of the internship report and evaluation of the internship	15,00
Total hours	**50,00**

TEACHING METHODOLOGY

In each clinical practice session, the student will be assigned a child patient. They will work first as an operator, assisted by their box companion and later the two students in the box will switch their roles of operator and assistant. The clinical practice sessions will be carried out in the General Clinic of the Dental Clinic at the University of Valencia throughout the morning and afternoon. The student must create a clinical history of the patient in which they must make a diagnosis and a proposed treatment plan. This must be supervised, signed and approved by their clinical practice teacher. Once approved by the teacher, they must enter the treatment into the Dental Clinic¿s computer programme. Likewise, all steps in the treatment must undergo the teacher¿s supervision. The clinical practice sessions will be evaluated following evaluation criteria explained below.

Clinical virtual simulation practice will also be carried out using the SIMtoCARE Dente haptic simulators available at the Comprehensive Simulation Centre of the University of Valencia. Each student will practice the treatments indicated by their tutor. Each student will complete between 3 and 6 hours of practice on these simulators.

Furthermore, the clinical cases presentations are aimed at developing all aspects of practical training concerned with acquiring the manual skill, clinical experience, proposed different therapeutic alternatives, ergonomic and clinical considerations suitable to this age group. These clinical cases presentations are delivered orally with computer support by students and supervised by the corresponding teachers. Likewise, the clinical cases presentations will be evaluated following evaluation criteria explained below. Participation in service-learning projects (ApS) will be offered.

The gender perspective, respect for diversity and the sustainable development goals (SDGs) will be incorporated into teaching, whenever possible.

EVALUATION

Evaluation of the subject consists of several parts as described below:

Weekly Clinical Practice and clinical case presentations 50%

Ongoing evaluation by the clinical practice teacher of the student¿s attitude and aptitudes, as well as the skills developed by the student both in diagnosis and in treatment during the practice sessions in the academic year. The teacher will record the treatments given by the student on their practice file, grading

them and informing the student of unsuitable attitudes and skills.

For this, the teacher will use the evaluation criteria posted in ¿Aula Virtual¿ in Annex 1.

Clinical practice evaluation also includes clinic case presentations, which are mandatory. The clinical cases will be graded according to their content, as well as each student¿s presentation. For this, the teacher will use the evaluation criteria posted in \"virtual aula\" in Annex 2. The teacher will also evaluate student attitude in the rest of the classmate¿s clinical case presentations.

Attendance at practical activities is mandatory. The 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 subject.

The student must obtain a minimum grade of a 5 (approved) on the clinical practice grade to average with the final exam grade.

In the event that the student does not achieve the minimum required grade in practicals and therefore fails the subject, they will be informed before the final exam. The professor responsible for each student will personally inform them about their progress and the assessment of their clinical competence acquisition at the beginning of the second semester.

Final Exam (May-June) 50%

Test exam and short question exam on pictures of clinical cases, as well as writing a prescription in child patients. Points will be subtracted for incorrect answers in the evaluation.

The final grade will be the average between the test exam and short question exam on pictures of clinical cases, both parties having to be approved with a minimum rating than 5. In case of failing any of the parts of this exam, it can be recovered it in the June-July call.

The student must obtain a minimum grade of a 5 (approved) on the final exam to average with the clinical practice grade.

The current evaluation criteria of the University of Valencia is governed by Royal Spanish Decree 1125/2003, dated 5 September 2003, and is as follows:

0-4.9. Fail (F), 5.0-6.9.Pass (P), 7.0-8.9.Above average (AA), 9.0-10. Excellent (E)

The mention ¿1st Class Honours¿, if applicable, shall be granted to students who have obtained a grade equal to or greater than 9.0, according to the criteria for excellence in that distinction, which are established in the final evaluation. The number of such grades may not exceed 5% of the students enrolled in the subject in the corresponding academic year.

In order to access to an advance on the call of this subject, it is a requirement that the student has coursed all his/her practices and in addition to meet the requirements demanded by the University.

Students are reminded of the importance of carrying out evaluation surveys to all teaching staff of the degree subjects.

REFERENCES

BASIC

- Ortodoncia clínica y terapéutica. Canut Brusola JA. Ed. Masson.
- Odontopediatría. Bebés, niños y adolescentes. Boj JR, Catalá M, Mendoza A, Planells P, Cortés O. Editorial: Odontología Books. 1ª ed, 2019.
- Featherstone, John & Crystal, Yasmi & Gomez, Francisco. (2019). CAMBRA®¿ Caries Management by Risk Assessment A Comprehensive Caries Management Guide for Dental Professionals. Journal of the California Dental Association.
- https://www.iccms-web.com/content/resources/iccms-icdas-publications
- https://www.aapd.org/research/oral-health-policies--recommendations/

- - RECURSOS e-Salut:
- - ClinicalKey Student Medicina, Odontologia y Enfermería [https://uv-es.libguides.com/RecursosSalut]
- - Acces Medicina [https://uv-es.libguides.com/Access_Medicina]
- - Médica Panamericana [https://uv-es.libguides.com/Medica_Panamericana]

SUPPLEMENTARY

- Ortodoncia; Teoría y práctica. Proffit WR. Ed. Mosby/Doyma.
- Pediatric Dentistry. A clinical aproach. Koch G, Poulsen S. Ed. Munksgaard.
- Manual de Ortodoncia. Bravo González LA. Ed. Síntesis.