COURSE DATA

DATA SUBJECT

Code: 34719
Name: Dental pathology, conservative dentistry and endodoncy II
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	Dental pathology, conservative dentistry and endodontics	COMPULSORY

COORDINATION

FORNER NAVARRO LEOPOLDO

SUMMARY

"Dental Pathology, Operative Dentistry and Endodontics II" is the second part of a mandatory topic located at the 3rdand 4thyears, during the studies of Dentistry. It takes part of the specific topics on Dental Pathology and Therapeutics. The first part (3rdyear) includes basic elemntsm while the second one (4th year), the present topic we are describing, talks about endodontic therapy and complex operative dentistry, including the restoration of the endodontic treated tooth though direct, semidirect and indirect techniques, as well as Esthetic Operative Dentistry

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

1206 - Degree in Dentistry

Obligation to have previously passed the subject(s)	34718 - Dental pathology, conservative dentistry and endodoncy I

OTHER REQUIREMENTS

COMPETENCES / LEARNING OUTCOMES

1206 - Degree in Dentistry

Adquirir experiencia clínica bajo la adecuada supervisión.

Conocer los biomateriales dentales: su manipulación, propiedades, indicaciones, alergias, bio-compatibilidad, toxicidad, eliminación de residuos e impacto ambiental.

Conocer los procedimientos y pruebas diagnósticas clínicas y de laboratorio, conocer su fiabilidad y validez diagnóstica y ser competente en la interpretación de sus resultados.

Conocer y aplicar el tratamiento básico de la patología bucodentaria más habitual en pacientes de todas las edades. Los procedimientos terapéuticos deberán basarse en el concepto de invasión mínima y en un enfoque global e integrado del tratamiento bucodental.

Conocer y usar el equipamiento e instrumentación básicos para la práctica odontológica.

Determinar e identificar los requisitos estéticos del paciente y de las posibilidades de satisfacer sus inquietudes.

Diseñar, preparar los dientes, prescribir, registrar, realizar pruebas clínicas y colocar y poner en servicio restauraciones indirectas: incrustaciones, carillas o frentes laminados estéticos y coronas unitarias,

Establecer el diagnóstico, pronóstico y una adecuada planificación terapéutica en todas las áreas clínicas de la Odontología, siendo competente en el diagnóstico, pronóstico y elaboración del plan de tratamiento odontológico del paciente que requiera cuidados especiales, incluidos los pacientes médicamente comprometidos (como diabéticos, hipertensos, inmunodeprimidos, anticoagulados, entre otros) y pacientes con discapacidad.

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 y atender cualquier urgencia odontológica.

Manejar, discriminar y seleccionar los materiales e instrumentos adecuados en odontología.

Obtain and elaborate a clinical history withrelevant information.

Prácticas preprofesionales, en forma de rotatorio clínico odontológico y con una evaluación final de competencias que permita incorporar los valores profesionales, competencias de comunicación asistencial, razonamiento clínico, gestión clínica y juicio crítico. Deberán incluir trabajo clínico del estudiante en todas las edades y condiciones de un modo integrado y bajo adecuada supervisión.

Proporcionar un enfoque global de los cuidados orales y aplicar los principios de promoción de la salud y prevención de las enfermedades bucodentarias.

Realizar las radiografías necesarias en la práctica odontológica, interpretar las imágenes obtenidas y conocer otras técnicas de diagnóstico por imagen que tengan relevancia.

Realizar procedimientos estéticos convencionales desde una perspectiva multidisciplinar.

Realizar tratamiento médico de las enfermedades comunes de los tejidos blandos bucales.

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.

Realizar tratamientos endodóncicos y aplicar procedimientos para preservar la vitalidad pulpar.

Reconocer la normalidad y la patología bucal, así como la evaluación de los datos semiológicos.

Saber planificar y realizar tratamientos odontológicos multidisciplinares, secuenciales e integrados de complejidad limitada en pacientes de todas las edades y condiciones y de los pacientes que requieran cuidados especiales.

Saber realizar un examen bucal completo, incluyendo las oportunas pruebas radiográficas y de exploración complementarias, así como la obtención de adecuadas referencias clínicas

Tener capacidad para elaborar un juicio diagnóstico inicial y establecer una estrategia diagnóstica razonada, siendo competente en el reconocimiento de las situaciones que requieran una atención odontológica urgente.

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

Trabajo fin de grado. Materia transversal cuyo trabajo se realizará asociado a distintas materias,

Tratar operatoriamente los procesos destructivos y las lesiones traumáticas dento-alveolares.

Tratar traumatismos dento-alveolares en denticiones temporal y permanente.

Valorar y tratar al paciente con caries su otra patología dentaria no cariosa y ser capaz de utilizar todos los materiales encaminados a restaurar la forma, función y la estética del diente en pacientes de todas las edades.

DESCRIPTION OF CONTENTS

1. Introduction to the subject ¿Dental Pathology, Conservative Dentistry and Endodontics II¿.
2. Fundamentals of the endodontic therapy.
3. Phisiopathology of the dentinal-pulpal complex.
4. Pulp and periapical pathology: diagnosis.
5. Endodontic radiology.

6. Root canal system organization.
7. Crown access for the root canal treatment.
8. Hand instruments for the biomechanical preparation of the root canal system.
9. Shaping techniques.
10. Root canal length assessment.
11. Root canal cleaning.
12. Root canal filling: Materials and instruments.
13. Root canal filling techniques I.
14. Root canal filling techniques II.
15. Shaping rotary instruments.
16. Shaping rotary techniques.
17. Endodontic bioactive materials.
18. Vital dental pulp therapy I.
19. Vital dental pulp therapy II.
20. Regenerative endodontics. Endodontic treatment in teeth with incomplete root formation.
21. Diagnostic and therapeutic approach to endo-peridontal pathology.
22. Difficulties in the endodontic treatment: perforations and calcifications.
23. Guided endodontics.
24. Prognosis in endodontics and its assessment. Causes of endodontic treatment failure.
25. Orthograde endodontic retreatment: instruments, materials and techniques.

26. Radicular and periapical surgery.

27. Therapeutic alternatives for complex situations: root resorptions, anatomical difficulties and others.

28. Reconstruction with intrarradicular posts. Cuspal protection.

29. Endodontic Medicine.

30. Dental color assessment.

31. Esthetic comsiderations in Restorative Dentistry. Assessment procedures. Therapeutic alternatives. Clinical records.

32. Patterns in facila esthetics. Smile analysis. Dental proportions. Interdental relationships Gingival factors.

33. Adhesive clinical procedures in Restorative Dentistry.

34. Composite resins: clinical properties, types and indications.

35. Great esthetic dental reconstructions: advanced techniques of field isolament and matrix placement.

36. Conservative treatment of dismorphic teeth.

37. Injected composite veneres.

38. Composite veneres: indirect technique.

39. Ceramic veneers.

40. Great esthetic reconstructions in anterior teeth.

41. Great esthetic reconstructions in posterior teeth. Direct placement.

42. Great esthetic reconstructions in posterior teeth. Materials. Clinical procedures.

43. Digital dental reconstruction techniques.

44. Multidisciplinary esthetic restorative treatments I.

45. Multidisciplinary esthetic restorative treatments II.

46. Maintenance in Esthetic Restorative Dentistry. Repair *versus* substitution.

47. Prognosis of esthetic restorations.

48. Bleaching agents.

49. Vital bleaching: at-home and in-office.

50. Non vital bleaching.

51. Side effects of dental bleaching. Prevention.

52. Prognosis of dental bleaching.

PRACTICAL PROGRAM

Dental restorations with composite in anterior and posterior teeth.
Use of a matrix.
Isolation techniques of the operating field.
Recognition of specific instruments for use in Endodontics. Terminology and clinical use.
Selection and clinical use of filling materials in Endodontics.
Use of diagnostic procedures inn Endodontics: clinical, radiographic and complementary.
Assessment of a prognostic judgment and a treatment plan for the pathology of the dentine-pulp complex.
Performing root canal treatments.
Coronal reconstruction after root canal treatment.
Insertion of intraradicular posts.
Preparation and insertion of composite veneers using direct and indirect techniques.
Performing direct and indirect reconstructions on posterior teeth.
Preparation of bleaching trays for at-home use.

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Theory	52,00
Odontology practices	64,00
Laboratory	60,00
Classroom practices	4,00
Total hours	**180,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	5,00
Individual or group project	19,00
Independent study and work	19,00
Preparation of lessons	55,00
Preparation for assessment activities	13,00
Resolution of case studies	9,00
Total hours	**120,00**

TEACHING METHODOLOGY

The Schedule of the activities will be published in september, before the beginning of the course, in order to allow a better time organization and the possibility of preparing theoretical and practical lessons. Theoretical lessons (twice a week) will be implanted focusing on practical aspects through images, clinical cases and explanations about diagnostic and therapeutic techniques. Bibliographic references will be provided. There will be two different practical activities, the simulation (lab) and the clinical ones. Three seminars on dentin-pulpar diagnostic and therapeutics will be organized, where clinical cases will be presented and discussed. Group working and autoformation will be fomented, so an experimental work or a literature revision will be performed by students with the help of a professor-mentor. This work will be presented in a public sessions during a 10 minutes, with a discussion, together with the students of this topic from the 3rdyear. These presentations will be organized as a congress, entitled "University meeting on dental pathology and therapeutics". An estern professor will be invited for a lecture. TICs and e-learning will be present throughout the teaching-learning process, mainly with the help of the different tools of the "Aula Virtual".

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

EVALUATION

It will have two parts: 1.- Written test, 50 multi-choice questions, to assess the record of the exam the follow formjula will be used: X = A-(E·K), being X the obtained score (taking in account the randomness). A = well answered items, E = mistakes or not answered items, k = 1/n-1, being n the number of distractor (5). For passing the test, X must be 25. 2.- Continuous a evaluation of practical activities. When test is passed, an average between theoretica ¡and practical evaluations, will be done. This will be the 90% of final qualification, the 10% will be the evaluation presented at the "University meeting on dental pathology and therapeutics".

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.

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

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REFERENCES

Básicas:

Manual de Endodoncia. Durán-Sindreu, S. y cols. Editorial Edra. Zaragoza. 2022.

Odontología restauradora. Brennan, F. y cols. Elsevier Masson. Barcelona. 2010.

Endodontology. An integrated biological and clinical view. Ricucci, D. y Siqueira Jr, JF. Quintessence Publishing. London. 2013.

Blanqueamiento dental. Bases científicas y técnicas clínicas. Amengual, J. y Forner, L. Ediciones Especializadas Europeas. Barcelona. 2011.

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]