COURSE DATA

Data Subject	
Code	34723
Name	Periodontics
Cycle	Grade
ECTS Credits	12.0
Academic year	2019 - 2020

Study (s)

Degree	Center	Acad. year	Period
1206 - Degree in Dentistry	Faculty of Medicine and Odontology	4	Annual

Subject-matter

Degree	Subject-matter	Character
1206 - Degree in Dentistry	23 - Periodontics	Obligatory

Coordination

Name	Department
ALPISTE ILLUECA, FRANCISCO M	131 - Stomatology

SUMMARY

Periodontics is a compulsory subject included in the module of specifically Odontological Pathology and Therapeutics. For the Degree on Odontology this subject has been allocated 12 ECTS credits, with a theoretical-practical approach and clinical practice in patients.

This subject is placed in fourth year because for its good development the student must know the basics on health branch and must be qualified to carry out dental treatments that requires anesthesia or basic surgery, that they must have practice during the previous years. This way, by taking this subject the student will learn how to handle any health problem that affects the periodontium by acquiring the knowledge and basic skills in a clinic that will assure a good profit of the Practicum during the fifth year.

PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

1206 - Degree in Dentistry :

1210 - Grado de Odontología 2012 :

R4-OBLIGATION TO HAVE SUCCESSFULLY COMPLETED THE COURSE

34696 - Human anatomy

34697 - Biology

34698 - Human physiology

34699 - Biochemistry

34702 - Psychology and communication

34703 - Biostatistics and public health

34696 - Human anatomy

34697 - Biology

34698 - Human physiology

34699 - Biochemistry

34702 - Psychology and communication

34703 - Biostatistics and public health

Other requirements

OUTCOMES

1206 - Degree in Dentistry

- 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.
- Conocer la morfología y función del aparato estomatognático, incluyéndose contenidos apropiados de embriología, anatomía, histología y fisiología específicos.
- 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.
- 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.

- Realizar procedimientos quirúrgicos sencillos: extracción de dientes temporales.
- Tener conocimientos sobre la etiología, progresión y evolución de las enfermedades periodontales, atendiendo a las características bacteriológicas e inmunológicas de cada una de ellas, con especial atención a aquellos factores locales o sistémicos que pueden alterar su curso.
- Ser competente en la evaluación de los resultados del tratamiento periodontal y en la identificación, en su caso, de necesidades de tratamiento periodontal complejo.

LEARNING OUTCOMES

The main aim of this subject is to get the student to be able to take care of patients suffering from a periodontal pathology, to carry out an examination to determine the health or disease situation, with a consequent treatment plan with the steps to restore and maintain a periodontal health both in the medium and the long term.

DESCRIPTION OF CONTENTS

1. I- INTRODUCTION TO PERIODONTICS

1. - Introduction to periodontics.
Concept. Historical evolution. Parts of the subject. Connection with other subjects. Schedule and teaching methodology.

2. II- STRUCTURE AND PHYSIOLOGY OF THE PERIODONTIUM

2. - Clinical anatomy of the periodontium.
Components of the periodontium and its anatomical relationships. Periodontal insertion and periodontal protection. Clinical and radiological features of a healthy periodontium.
3. - Periodontal histology and physiology. Dentogingival junction.
Periodontal components histology and their functional relationship. Protection of the internal periodontium environment and dentogingival insertion.
4. - Formation and development of the periodontium in the tooth eruption process. Anatomical and dimensional variations and its repercussion on periodontal health and on esthetics.
Although this subject has its own identity, due to practical clinical issues it will be developed chronologically and progressively during lessons 35 and 36, when the students will have more defined clinical criteria on Periodontics.

3. III- PATHOPHYSIOLOGY OF THE PERIODONTIUM

5. - Dental plaque (biofilm) and dental calculus.
Dental plaque: composition, structure, formation and classification. Biofilms. Dental calculus: composition, structure, formation and pathogenic potential. Other factors that boost the accumulation of plaque: iatrogenic factor and root enamel.
6. - Microbiology of the periodontal diseases.

Evidence of the bacterial etiology in the periodontal diseases. Criteria for a definition of the periodontogenic bacteria. Specific and nonspecific plaque hypothesis. Periodontal microflora during health and disease. Mechanisms of antimicrobial action important in periodontal diseases.
7. - Histopathology of the periodontal disease.
Swelling as a mechanism of defense. Cellular and humoral immunity. Protective and destructive roles of the host response. Chronological evolution of the periodontal disease. Pathological anatomy of the periodontal lesion and its clinical correlation. Periodontal pockets.
8. - Mechanisms of defense against the dental plaque.
Host-parasite interaction. Periodontal disease progression and mechanisms of tissue destruction.
9. - Modifying factors in the pathogenesis of periodontal diseases.
Diabetes, stress, smoking, hormonal alterations. Susceptibility to periodontitis (genetic factors).

4. IV- PERIODONTAL EXAMINATION

10. - Clinical examination I. Clinical examination II.
Anamnesis. Clinical parameters. Catheterization and periodontogram. Laboratory tests: microbiological, immunological and biochemical.
11. - Radiological examination I. Radiological examination II.
Radiographic parameters. Radiographic study techniques. Parallel periapical radiographic series.

5. V- PERIODONTAL DISEASES

12. - Periodontal diseases classification.
Historical approach of the different classifications of the periodontal diseases by a supposed etiopathogenic mechanism.
13. - Forms of periodontal disease I. Gingivitis.
Plaque-induced gingivitis. Other gingival alterations.
14.- Forms of periodontal disease II. Periodontitis.
Chronic periodontitis. Aggressive periodontitis. Necrotizing periodontal disease.
15.-. Systemic impact of the periodontal diseases.
Cardiovascular disease. Effects during pregnancy. Respiratory infections.
16. - Epidemiology of the periodontal disease I. Epidemiology of the periodontal disease II.
Periodontal index systems. Prevalence, severity and distribution of the periodontal disease among the population. Epidemiology contributions.

6. VI- PERIODONTAL DIAGNOSIS AND TREATMENT PLANNING

17. - Periodontal diagnosis and prognosis.
Diagnostic criteria. General and single-tooth periodontal prognosis.
18. - Treatment planning. Sequence and goals of a periodontal treatment.
Comprehensive and periodontal treatment plan. Treatment steps and goals. Information and motivation. Etiological factor control and other related factors control. Assessment. Surgical treatment. Maintenance.

7. VII- BASIC PERIODONTAL TREATMENT.

19.-Motivation techniques applied to a periodontal patient.
Motivational interviewing: importance and development.
20. - Mechanical control of supragingival plaque.
Importance of supragingival plaque removal. Techniques to self-monitoring plaque. Limitations and adverse effects.
21. - Chemical control of supragingival plaque: antiseptics. Antibiotic therapy in periodontal diseases (I and II).
Chemical control of plaque. Objectives. Classification of chemical agents for controlling plaque. Chlorhexidine: mechanism of action, indications and side effects. Administration guidelines. Antibiotics in the treatment of periodontal disease, types and indications. Intralesional liberation systems.
22. - Non-surgical treatment of periodontal disease: periodontal Instrumentation I.
Concepts: tartar removal, scaling and root planing, gingival curettage. Instrumentation with mechanical devices: sonic and ultrasonic. Indications and limitations. Advantages and disadvantages. Other instruments used.
23- -surgical treatment of periodontal disease: periodontal Instrumentation II. Periodontal Instrumentation III.
Scaling and root planing: definition, objectives, instruments and techniques. Indications, limitations and clinical outcomes.
24. - Periodontal considerations in other dental treatments I. Orthodontics Periodontics relationship. Periodontics and restorative dentistry.
Periodontal remodeling during orthodontic movement. Indications and contraindications of orthodontic treatment in adult patients with periodontal pathology. Periodontal-orthodontic treatment sequence.
Restorative treatment and biological width. Factors in the design of dental restorations that may affect the periodontal tissue. Biological with invasion.

8. (continued point VII)

25. - Periodontal considerations in other dental treatments II. Orthodontics Periodontics relationship. Occlusion and periodontal disease.
Pulp injuries and its impact on the periodontium. Endodontic-periodontal syndrome: causes, clinical and radiographic manifestations, differential diagnosis (periodontal abscess). Treatment protocol.
Periodontal physiological behavior to occlusion forces. Definition and terminology of occlusal trauma. The occlusal trauma and periodontal disease. Pathologic tooth migration.
26. - Halitosis and periodontal disease.
Etiopathogenic factors of halitosis. Differential diagnosis and treatment.
27. - Dentin Hypersensitivity and periodontal treatment.
Epidemiology, etiopathogenesis, differential diagnosis and treatment of dentinal sensitivity.

9. VIII- PERIODONTAL SURGICAL TREATMENT.

28. - Introduction to periodontal surgery.
General principles of periodontal surgery. Objectives of periodontal surgery treatment. Indications and contraindications. Patient preparation, medication and care.
29. - Periodontal soft tissues surgery.
Classification of periodontal surgery techniques. Surgical techniques for the treatment of the pockets.
30. - Resective osseous periodontal surgery. Furcation involvement surgical treatment.
Physiological bone architecture and destruction patterns in periodontitis. Classification of bone defects. Definition and classification of bone surgery techniques. Indications and goals of resective osseous surgery (ROS). Description and steps of resective osseous surgery.
Root anatomy and terminology. Classification of furcation lesions: clinical and radiographic diagnosis. Treatment options in furca lesions.
31. - Regenerative periodontal surgery I.
Periodontal wound healing. Periodontal pocket healing. Concepts: regeneration, repairing, reinsertion, new insertion and bone regeneration.
Indications and limitations of periodontal regeneration techniques: patient factors, etiopathogenic control of periodontitis, characteristics of bone defects.
32. - Regenerative periodontal surgery II.
Therapeutic media on periodontal regeneration. Debridement, root conditioning, bone grafting and fillers, guided tissue regeneration and guided bone regeneration. New therapeutic approaches for periodontal regeneration.
33. - Mucogingival surgery I.
Recession concept. Recession etiopathogenesis. Classification of recession lesions. Therapeutic approach.
34. - Mucogingival surgery II.
Mucogingival surgery. Objectives and indications. Surgical techniques.

10. (continued point VIII)

35. - Periodontal surgery for aesthetic and restorative purposes I.
Influence of periodontal tissues in facial aesthetics. Studies on dimensions of the dentogingival unit. Dimensional variability factors: periodontal biotype and phenotype. Clinical significance and implications in the periodontal treatment.
36 Periodontal surgery for aesthetic and restorative purposes II.
The altered passive eruption, definition, production mechanisms, types and clinical implications. The gummy smile: causes, differential diagnosis and treatment planning. Periodontal surgery prior to restorative treatment.

11. IX- PERIODONTICS APPROACH TO ORAL IMPLANTOLOGY

37. - Periodontium and peri-implant tissues. Implant treatment in patients with periodontitis.
Integration of hard and soft tissues. Dimensional characteristics of peri-implant tissues. Examination of peri-implant tissues.
38.-Management of hard and soft tissues in implantology, its impact on health and aesthetics.
39. - Periodontal disease and peri-implant disease.
Microflora on implants in patients with a history of periodontal disease. Peri-implant mucositis and peri-implantitis.

12. X- PERIODONTAL TREATMENT MAINTENANCE.

40. - Periodontal maintenance phase. Maintenance of osseointegrated implants.
Effect of periodontal treatment in the maintenance of the dentition. Alternatives for the prevention and control of periodontal disease. Periodontal maintenance patient with dental implants: ground and objectives. Maintenance Planning.

13. Pre-Clinical Training:

1. - Introduction to pre-clinical training. Periodontal medical history: Periodontogram.
2. - Application of periodontal indices.
3. - Knowledge of the tools used in periodontal examination and treatment.
4. - Sharpening of the basic periodontal treatment tools.
5. - Identification of the equipment used for periodontal surgery.
6. - Tools used for scaling and root planing.
7. - Radiographical examination.
8. - Scaling and root planing on phantom anterior teeth.
9. - Scaling and root planing on phantom molars and premolars.
10. - Periodontal examination and periodontogram data among students.
11. - Scaling and root planing among students.

14. Clinical Practices:

Clinical Practices:

The students will take care of patients with periodontal pathology. They will create the clinical history, do the examination, diagnosis, prognosis, treatment plan development and, finally, they will develop the basic periodontal treatment. During this process, there will be a specially focus on motivational techniques applied to the periodontal patient (motivational interviewing).
- Paper on a topic of the content of Periodontology (Documentation and presentation of a clinical case)
- Seminars of practical interest.

WORKLOAD

ACTIVITY	Hours	% To be attended
Odontology practices	64,00	100
Theory classes	52,00	100
Laboratory practices	50,00	100
Classroom practices	14,00	100
Attendance at events and external activities	8,00	0
Development of group work	8,00	0
Development of individual work	7,00	0
Study and independent work	25,00	0
Readings supplementary material	9,00	0
Preparation of evaluation activities	16,00	0
Preparing lectures	31,00	0
Preparation of practical classes and problem	12,00	0
Resolution of case studies	4,00	0
TOTAL	**300,00**	

TEACHING METHODOLOGY

Teaching and learning methodology in this subject will mainly be based on theoretical-practical in-person activities.

The theory lessons, in form of lectures, will introduce the student to the essential and more relevant contents of the subject.

The in laboratory simulated practices with models will be aimed at providing the student with the basic skills and abilities to access clinical practices with patients.

The seminars and clinical case studies will allow the students to become familiar with the critical analysis of information and a reasoned decision making, based on the acquired information.

Clinical practices in this subject are done with patients and their aim is for, along with the rest of methodologies outlined, and under the direct supervision of a teacher, the students to recognize the peculiar features of the anamnesis, examination, diagnosis, treatment plan, basic treatment, and indications for advanced surgical periodontal treatment in patients with periodontal pathology.

The necessary direct supervision of these practices, that are clinical and with patients, contributes to the students' orientation toward resolving their doubts and weaknesses in their learning and allows an ongoing tutoring beyond the set tutoring sessions.

EVALUATION

English version is not available

REFERENCES

Basic

- Wolf HF, Edith M, Klaus H., Rateitschak. Atlas de periodoncia. 3ª edición 2005. Ed. Masson.
- Lindhe. Periodontología clínica e Implantología Odontológica. 2009. 5ª Edición. Editorial Médica Panamericana.
- Carranza`s. Clinical Periodontology. Tenth edition 2006. Saunders, Esevier Inc
- Manual SEPA de Periodoncia y Terapéutica en Implantes. 2005 Editorial Médica Panamericana.

Additional

- Carranza F, ShKlar G. History of periodontology. ED. Quintessence Publishing Co, Inc. 2003.
- AAP. Glossary of periodontal terms. The American Academy of Periodontology, 4ª ed. 2001.
- Periodontology 2000. http://www.wiley.com/bw/journal.asp?ref=0906-6713
  Sociedad Española de Periodoncia y Osteointegración: http://www.sepa.es/
  Revista de Periodoncia y Osteointegración: http://www.sepa.es/estar-al-dia/revista.html
  Journal of clinical Periodontology: www.wiley.com/bw/journal.asp?ref=0303-6979
  Journal Periodontology: www.joponline.org/loi/jop

ADDENDUM COVID-19

This addendum will only be activated if the health situation requires so and with the prior agreement of the Governing Council

1. Contenidos

EN EL SEGUNDO CUATRIMESTRE ADEMAS DE CLASES TEÓRICAS, EL ALUMNO REALIZA PRACTICAS CON PACIENTES CON PROBLEMAS DE SALUD PERIODONTAL.

EL CONTENIDO DE LAS CLASES TEÓRICAS, SE COMPLETÓ

EN EL SEGUNDO CUATRIMESTRE DEL CURSO ACADEMICO LO DEDICAMOS PRINCIPALMENTE A LA ATENCIÓN DE PACIENTES EN LAS PRÁCTICAS CLÍNICAS, QUE SE SUSPENDEN.

DE LOS CASOS CLÍNICOS QUE EL ALUMNO HA TENIDO OCASIÓN DE TRATAR A LO LARGO DE ESTE PERIODO DE LAS PRACTICAS CLÍNICAS, TIENE QUE DOCUMENTAR EN PROFUNDIDAD UN CASO CLÍNICO, CON LOS REGISTROS DE LA ANAMNESIS, CLÍNICOS, RADIOGRÁFICOS, FOTOGRÁFICOS, Y SI FUESE NECESARIOS DE LABORATORIO.

EL ALUMNO ASESORADO POR SU PROFESOR-TUTOR REALIZA UN TRABAJO DE REVISIÓNBIBLIOGRÁFICA SOBRE ALGUN ASPECTO DESTACABLE DE ESE CASO CLÍNICO,

Y POSTERIORMENTE PRESENTAR PUBLICAMENTE ANTE SUS COMPAÑEROS. ANTE LA IMPOSIBILIDAD DE REALIZAR ESTAS SESIONES CLÍNICAS, OPTAMOS POR EL SEGUIMIENTO DE LA TUTORIZACIÓN DE LOS ALUMNOS POR VIA e-MAIL DE ESTOS TRABAJOS QUE HEMOS COMENTADO

2. Volumen de trabajo y planificación temporal de la docencia

TIPOS DE ACTIVIDADES NO PRESENCIALES Horas

Elaboración de trabajos individuales 3

Elaboración de trabajos en grupo 2

Estudio y trabajo autónomo 2

Lecturas del material complementario 4

TOTAL 11

3. Metodología docente

Utilizamos el aula virtual para la comunicación alumno-profesor, especialmente a través de e-mail, tanto para el envío de los trabajos en Word y en Power-Point, como para consultas en tutoría y revisiones de trabajos.

4. Evaluación

1. Evaluación continua de la actitud y destreza alcanzada por el alumno en la fase de prácticas preclínicas de la asignatura (Prácticas de laboratorio y clínicas sin paciente).

La evaluación de esta apartado la tenemos realizada desde final del 1º cuatrimestre

2.Valoración Final. Para aprobar la asignatura el alumno deberá haber obtenido una valoración positiva en las prácticas clínicas realizadas sobre paciente hasta antes de la fecha del 13 de Marzo de 2020, y en la documentación y argumentación científica (Revisión Bibliográfica Sistemática) del caso clínico documentado.

Criterios de calificación final:

No habrá Examen Final Teórico.

La calificación final se obtendrá de la evaluación continua que se realiza a lo largo del curso con cada alumno en el aspecto del desarrollo de las practicas pre-clínicas y prácticas clínicas con pacientes, que se complementará con la evaluación de la documentación del caso clínico y su resolución en base a la revisión bibliográfica sistemática realizada; de la siguiente manera:

- La valoración continua por parte del profesor sobre el desarrollo de las prácticas (pre-clínicas y prácticas clínicas) supone el 60%. Se valorará en base a destrezas adquiridas, procedimientos realizados, y cumplimiento de las normas de las prácticas clínicas (las faltas de asistencia no justificadas restan 5 puntos).

- La evaluación de la documentación de un caso clínico resuelto en base a la argumentación científica mediante revisión bibliográfica sistemática supone el 40% de la nota final. En este porcentaje también se integrará la asistencia a todas las actividades programadas y la valoración de la implicación del alumno en estas tareas.

5. Bibliografía

NO CAMBIA LA BIBLIOGRAFIA SEÑALADA EN LA GUIA DOCENTE ORIGINAL