



ENGLISH FRIENDLY COURSES (EFC) 2024-2025 CAMPUS OF BIZKAIA

<https://www.ehu.eus/es/web/medikuntza-erizaintza-fakultatea/erasmus-incoming-students>

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In addition to the general offer of courses taught in English, some Centers offer for incoming students English Friendly Courses (EFC): subjects taught in Spanish or Basque, in which the syllabus summary; lecturer tutoring, examinations and/or papers are available in English.

English Friendly Courses taught in SPANISH:

FACULTY OF MEDICINE AND NURSING				
COURSE	SEMESTER ¹	CREDITS	SCHEDULE ²	LINK TO SYLLABUS
Bachelor's degree in Dentistry				
27219 Microbiología e Inmunología	1st	8	M	
27222 Farmacología General y Clínica	1st	6	M	
27246 Implantología	2nd	6	A	
27230 Periodoncia I	2nd	6	M	
27231 Periodoncia II	2nd	6	M	
28170 Terapia Quirúrgica Regenerativa en Periodoncia	2nd	6	A	
27228 Ortodoncia I	2nd	6	M	
Bachelor's degree in Medicine				
27276 Microbiología clínica e infección	1st	9	M	
27277 Fundamentos de Farmacología Médica	1st	6	M	
27263 Farmacología Médica Aplicada	2nd	6	M	
27270 Psiquiatría	2nd	6	M	
27295 Genética Médica	2nd	6	A	
Bachelor's degree in Physiotherapy				
27894 Farmacología en Fisioterapia	2nd	6	A	
Bachelor's degree in Nursing				
27568 Practicum I	1st	12	M/A	
27562 Valoración de los hábitos de vida de una Población	2nd	4,5	M	





¹ SEMESTER: Annual: September 2024 to May 2025

1st: September 2024 to January 2025

2nd : January 2025 to May 2025

² SCHEDULE: Morning (M)/ Afternoon (A): begins at 13.30.

English Friendly Courses taught in BASQUE:

FACULTY OF MEDICINE AND NURSING					
	COURSE	SEMESTER ³	CREDITS	SCHEDULE ⁴	LINK TO SYLLABUS
Bachelor's degree in Dentistry					
27237	Aho Patologia eta Medikuntza II	Annual	9	M	
27230	Periodontzia I	2nd	6	M	
27231	Periodontzia II	2nd	6	M	
27240	Aho Patologia eta Medikuntza I	2nd	6	M	
Bachelor's degree in Nursing					
27562	Biztanle Taldeen Bizitza Ohiturak Aztertzea	2nd	4,5	M	

³ SEMESTER: Annual: September 2024 to May 2025

1st: September 2024 to January 2025

2nd : January 2025 to May 2025

⁴ SCHEDULE: Morning (M)/ Afternoon (A): begins at 13.30.

COURSE GUIDE

2024/25

Faculty

327 - Faculty of Medicine and Nursing

Cycle

.

Degree

GMEDIC30 - Bachelor`s Degree in Medicine

Year

Second year

COURSE

27295 - Medical Genetics

Credits, ECTS: 6

COURSE DESCRIPTION

Medical practice is increasingly oriented towards personalized medicine, where the genetic characteristics of every patient are key. Therefore, a solid knowledge of Genetics is essential for the future professionals of Medicine.

The subject of Medical Genetics aims to increase the student's understanding of how genes contribute to human physiology and pathology. In this subject, we deal with the mechanisms that contribute to the development of diseases directly caused by genetic alterations (monogenic or chromosomal), as well as the mode of transmission of these diseases. Other more complex diseases, such as cancer, in which Genetics plays a relevant role, are also studied. During the course, reference is made to the different medical specialties where the knowledge of Genetics is applied. In particular, the genetic aspects of several clinical cases of diseases related to different specialties are discussed. Genetics can facilitate the integration of knowledge from different areas, and thus, the subject of Medical Genetics is directly related to other subjects of the Degree in Medicine. For example, 3rd year students should have acquired (in 1st and 2nd year subjects, such as Cell Biology, Genetics, and Biochemistry) a basic knowledge of the models of inheritance and transmission of characters, the structure and function of genes, or the regulation of gene expression, which will be reinforced, expanded and contextualized by studying the subject of Medical Genetics. On the other hand, Medical Genetics is related to other 3rd year subjects, such as Pharmacology (through Pharmacogenetics), as well as to subjects of later years, such as Pathology and Pediatrics (genetic basis of many human pathologies, many of which affect children).

Relationship between the subject of Medical Genetics and professional practice: By observing the total disease burden in the population, an increase in the proportion of genetic diseases can be noted. This is due, on one hand, to our increasing knowledge on the genetic basis of many diseases and, on the other hand, to the fact that the advances in Medicine during the last century have reduced the impact of other types of pathologies. In addition, technological advances make possible an accurate diagnosis of many diseases based on DNA analysis, and it is expected that gene therapy or replacement of defective genetic material will be a reality in the coming years.

At a time when prevention is one of the primary objectives of current medical practice, Genetics is an indispensable tool to better understand the basis of the pathological process, and therefore to devise useful prevention strategies. Furthermore, personalized medicine seeks to find the best treatment for each patient and, to this end, it is necessary to take into account the individual characteristics of each person, including the genes involved in their disease. The doctor of the future will work in this complex scenario, where Genetics and Genomics will be of paramount importance. The subject of Medical Genetics provides the fundamental tools to the students, so that they can deepen in the diseases specific to each of the professional specialties of Medicine.

COMPETENCIES/LEARNING RESULTS FOR THE SUBJECT

COMPETENCIES (MODULE)

To draw and interpret pedigrees; to calculate the risk of recurrence and to recognize human phenotypical features: to understand the structure and regulation of the human genome; to understand the molecular basis of human genetic diseases, as well as the origin and consequences of chromosomal alterations; to set up the experimental approaches required for the analysis or genetic diagnosis of a pathology; to know how to use the tools for the analysis of human genetic variability

COMPETENCIES (TRANSVERSAL)

CT1. Instrumental. Analysis and synthesis capability; organization and planning capability; oral communication; problem solving.
CT2. Personal. Self learning. Use of databases with information relevant in the field of Medical Genetics.
CT3. Systemic. Team work capability. Work ethics, motivation, self-demand.

LEARNING OUTCOMES (LO)

LO1. To adequately solve complex problems related to the inheritance of diseases as represented in pedigrees.
LO2. To establish the relationships between human genome alterations and human pathologies, in order to use such alterations as markers for diagnosis, prognosis and targeted treatment.
LO3. To select, in a well-argued manner, the cytogenetic or molecular techniques best suited for the diagnosis of different genetic pathologies.
LO4. To explain the features and consequences of a genetic disease, in a manner that is both correct and understandable for either health professionals or patients.



Theoretical and Practical Contents

Topic 1: Medical Genetics in the context of health: medical dimension of the advances in Human Genetics.

Theoretical-practical content:

Genetics as an integrative element in the training of a physician. The importance of genetics in the medical profession. The effects of Genetics on human health at different stages of life. Relationship of Genetics with other Medical specialties. Genetics in personalized medicine. New genetic technologies in clinical practice.

Topic 2: Use of molecular tools and techniques in the clinical diagnosis of genetic diseases.

Theoretical-practical content:

Informatics tools for use in Medical Genetics. Obtaining genomic information. Genomic browsers (Ensembl) and databases (OMIM, GeneReviews, Genetic Testing Registry).

PCR: polymerase chain reaction. Design of primers for PCR (exercise). Techniques for mutation analysis: hybridization, Sanger sequencing, NGS (next generation sequencing).

Techniques for the analysis of gene expression at the level of RNA (RT-PCR, expression microarrays) and protein (immunoblot, immunohistochemistry).

Topic 3: Pedigree drawing and Population Genetics: Genes in families and populations. Monogenic and multifactorial inheritance. Pedigree analysis and calculation of the risk of recurrence. Allelic and genotypic frequencies.

Theoretical -practical content:

General organization of the human nuclear and mitochondrial genome.

Genes: structure, expression and regulation. Protein-coding genes and non-coding RNA.

Repetitive DNA. Alu Sequences, microsatellites.

Epigenetics: Histone modifications and DNA methylation. Methods to study DNA methylation.

Importance of the family history in medicine. The pedigree as a fundamental tool for the study of family history. Inheritance patterns of monogenic diseases. Rules, tools and procedures to calculate the risk of recurrence. Limitations and problems.

Population Genetics. Allelic and genotypic frequencies. Hardy-Weinberg Law. The Importance of Population Genetics in Medicine: carrier frequency, human groups with high prevalence of genetic disease.

Topic 4: Effect of chromosomal and genetic alterations on genetic diseases: study of human chromosomal abnormalities. Models of molecular alterations that cause disease. Genotype-phenotype correlation

Theoretical-practical content:

The human chromosomes and their analysis. Karyotype and ideogram. Classical and molecular cytogenetic techniques (FISH, CGH and MLPA). Origins and clinical consequences of numerical and structural chromosomal abnormalities.

Molecular pathology: classification of mutations and clinical consequences. Loss and gain of function. Cancer and congenital errors of metabolism.

Specific nomenclature in Molecular pathology and Cytogenetics.

Topic 5: Applications of Genetics in Clinical Practice: Genetic counselling. Fundamentals and applications of Pharmacogenetics and Gene Therapy.

Theoretical-practical content:

Criteria for requesting a genetic test, interpretation of results and communication to the patient. The process of Genetic counseling.

Pharmacogenetics: genetic variability and drug metabolism.

Gene therapy. History, objectives and challenges. Methodological basis: vectors and procedures in vivo or ex vivo.

Achievements and problems.

TEACHING METHODS

Topic 1: Medical Genetics in the context of health: medical dimension of the advances in Human Genetics.

Methodology and teaching modalities:

Master class (Lecture). (1 hour)

Conferences by professionals of Genetics in the health field. (2h)

Topic 2: Use of molecular tools and techniques in the clinical diagnosis of genetic diseases.

Methodology and teaching modalities:

Master classes (Lectures). (6h)

Laboratory Practice: DNA extraction and PCR amplification. (4h)

Computer Practices: Practical exercise: design of PCR primers. (4h)
Genomic databases: genes and diseases (4h)
Classroom Practices (Problem solving): Diagnosis by Molecular Techniques (6h)
Problem-based learning: Seminars: (1h) Management of a family with a genetic disease - i) search for information

Topic 3: Pedigree drawing and Population Genetics of: Genes in families and populations. Monogenic and multifactorial inheritance. Analysis of pedigrees and calculation of the risk of recurrence. Allelic and genotypic frequencies.

Methodology and teaching modalities:
Master Class (Lecture). (1 hour)
Classroom Practices (Problem solving): Pedigree Analysis and Disease Inheritance (6h)
Problem-based learning: Seminars: (1h)
Management of a family with a genetic disease - ii) pedigree analysis and risk calculation

Topic 4: Effect of chromosomal and genetic alterations on genetic diseases: study of human chromosomal abnormalities. Models of molecular alterations that cause disease. Genotype-phenotype correlation.

Methodology and teaching modalities:
Master Classes (Lectures). (6h)
Classroom practices: Use of nomenclature (2h)
Guided discussion of clinical cases (2h)
Classroom practices (Problem solving): Results of molecular and cytogenetic techniques (6h)
Laboratory practice: Preparation and observation of human karyotype. (4h)
Problem-based learning: Seminars: (1h)
Management of a family with a genetic disease - iii) relationship between the genetic alteration and the clinical consequences

Topic 5: Applications of Genetics in Clinical Practice: Genetic counselling. Fundamentals and applications of Pharmacogenetics and Gene Therapy.

Methodology and teaching modalities:
Master Classes (Lectures). (6h)
Classroom Practice: Ethics and Genetics -Reading and discussion of articles (2h)
Preparation and presentation of seminars
Problem-based learning: Seminars: (2h)
Management of a family with a genetic disease - iv) presentation of the case to the group and communication to the family (therapeutic options and genetic counseling).

Types of teaching

Types of teaching	M	S	GA	GL	GO	GCL	TA	TI	GCA
Hours of face-to-face teaching	28	5	20	7	8				
Horas de Actividad No Presencial del Alumno/a	54	10	9	5	4				

Legend: M: Lecture-based S: Seminar GA: Applied classroom-based groups
GL: Applied laboratory-based groups GO: Applied computer-based groups GCL: Applied clinical-based groups
TA: Workshop TI: Industrial workshop GCA: Applied fieldwork groups

Evaluation methods

- Continuous evaluation
- End-of-course evaluation

Evaluation tools and percentages of final mark

- Written test, open questions 45%
- Exercises, cases or problem sets 15%
- Teamwork assignments (problem solving, Project design) 30%
- Oral presentation of assigned tasks, Reading 10%

ORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

It is mandatory to perform all the tests, and obtain a mark of at least 50% in each one of them.

1.- Theoretical evaluation (written test)

Criteria: The student correctly answers theoretical questions and adequately solves practical problems(pedigree analysis, interpretation of genetic diagnostic techniques and chromosomal analyses). He/she properly uses professional



terminology (including nomenclatures for mutations and chromosomal alterations).

Tools: written test: Three theory questions and two problems / practical exercises.

2.- Practical evaluation (Realization of practices - exercises, cases or problems)

Criteria: The student correctly performs laboratory practices, properly manages experimental equipment and materials, and is capable of interpreting the results. He/she is able to extract relevant information using computer tools and Genetics databases.

Tools: Supervision of laboratory practical sessions. Report of computer practice sessions.

3.- Continual assessment (teamwork, problem solving and project design, presentation of works, paper discussion...)

Criteria: The student attends to classes and participates actively. He/she works autonomously, and addresses the problems raised in previous classes. He/she makes contributions to during teamwork exercises (seminars and group exercises). He/she asks questions and makes interesting comments in the classroom. He/she collaborates in the learning of his/her classmates.

The seminar presentation (both preliminary rehearsals and the final presentation) contains all the relevant information and it is presented in a correct and interesting manner. The slides are well designed. In his/her presentation, the student integrates and contextualizes correctly the concepts explained in theoretical sessions, and he/she respond correctly to questions posed by the teacher or his/her classmates. The student uses the terminology appropriate to each situation (colleagues and patients).

Tools: Observation of the student's attitude in the classroom and the dynamics of work during the preparation of the seminar and in tutorial sessions. Deliverables: seminar summaries, solved exercises and problems raised in class to evaluate autonomous work.

Tutorial sessions (at least 3), report and public presentation (10 min) of a seminar on a genetic disease prepared during the course.

Students who wish to be evaluated through a final evaluation system must communicate their renounce to continual assessment by writing to the lecturer responsible for the subject. This communication should be made within 9 weeks after the beginning of the semester, in accordance with the official calendar of the Center.

The final evaluation will consist on a written test in which all the learning outcomes of the subject will be evaluated.

Not sitting the written test will imply refusing the exam call, and it will be officially recorded as not taken, or "No presentado", for students subject to both continuous or final evaluation.

During the evaluation tests, the use of books, notes, as well as telephones, electronic equipment, computers or other devices is strictly forbidden. Only a calculator is allowed. In case of dishonest or fraudulent practice, the provisions of the protocol on academic ethics and prevention of dishonest or fraudulent practices in the evaluation tests and academic works at the UPV / EHU will be applied.

EXTRAORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

The extraordinary examination call will be carried out through a final evaluation system. It will consist on a written test in which all the learning outcomes of the subject will be evaluated. The mark in the test will determine 100% of the final mark.

During the evaluation tests, the use of books, notes, as well as telephones, electronic equipment, computers or other devices is strictly forbidden. Only a calculator is allowed. In case of dishonest or fraudulent practice, the provisions of the protocol on academic ethics and prevention of dishonest or fraudulent practices in the evaluation tests and academic works at the UPV / EHU will be applied.

Not sitting the written test will imply refusing the exam call, and it will be officially recorded as not taken, or "No presentado", for students subject to both continuous or final evaluation.

MANDATORY MATERIALS

BIBLIOGRAPHY

Basic bibliography

- New Clinical Genetics 4th Ed Andrew Read and Dian Donnai ed Scion 2021 ISBN 9781911510703
- Genetics in Medicine. 8thEd. W.B.Nussbaum, R.L., McInnes, F.R. & Willard, H.F. 2015. Elsevier. ISBN 9781416030805
- Human Molecular Genetics 4th Ed. Tom Strachan & Andrew P. Read. 2011. Garland Science. ISBN 9780815341499

Detailed bibliography

- Lewis, R.2003. Human Genetics. Concepts and Applications. 5th ed. McGraw Hill. Boston. ISBN 007246268-X
- Jorde, Carey, Bamshad & White. 2010. 4th ed Medical Genetics 3rd edition. Mosby. ISBN: 0323020259
- Turpenny P, Allard S. 2012 Emery's Elements of Medical Genetics 14th ed.
- Pierce, B.A. Genetics Essentials: Concepts and Connections. 2015 (3rd Ed.). W. H. Freeman and Co. ISBN:1464190755

Journals

- Nature Reviews in Genetics
- Current Opinion Genetics

Web sites of interest

- On any mendelian phenotype:
<http://www.ncbi.nlm.nih.gov/omim/>
<http://www.geneclinics.org/>
- Specific for cytogenetics and chromosomal abnormalitites:
<http://www.slh.wisc.edu/cytogenetics/index.php>

OBSERVATIONS

COURSE GUIDE

2024/25

Faculty352 - Faculty of Medicine and Nursing

Cycle.

DegreeGENFER30 - Bachelor`s Degree in Nursing

YearSecond year

COURSE

27568 - Placement I

Credits, ECTS:12

COURSE DESCRIPTION

Program description.-

Nursing practicums, external experiential education, provide the essential link to the theoretical learning from the classroom to real life. Practicum I is an educational course with university supervision that enable students to apply the knowledge in the clinical setting to further competence development, clinical reasoning and problem solving, as well as communication and leadership skills. These are foundational to both the art and science of nursing, and prepare students as future health professionals to achieve success for developing their profession.

Prerequisites for this course.-

Students must have passed first academic year clinical course "Introduction to Care Practice".

COMPETENCIES/LEARNING RESULTS FOR THE SUBJECT

Competences.-

Pre-professional practices, as an independent clinical rotating period with a final evaluation of competences in primary health centers, hospitals and other healthcare centers that will enable students to acquire nursing professional values, healthcare communication competences, as well as, clinical reasoning, clinical management and critical thinking competences.

Theoretical and Practical Contents

This clinical period, will help students to integrate and apply the knowledge, skills and attitudes in the clinical setting as a professional practice, based on nursing values and principles associated to established competences for general objectives and subjects according to the official nursing degree.

TEACHING METHODS

Methodology.-

In this external experiential education period, different agents are involved. First, students who are responsible for their own learning process, taking part in the process itself, and participating in the development and achievement of the competences as well as in the evaluation process.

Moreover, during nursing students’s external experiential education period, according to established regulations for students’s external practices by the UPV/EHU, other involved agents during this period are:

Instructor (Clinical setting instructor)

A professional nurse from a clinical setting, who is in charge of students’s educational training during their clinical practice in collaboration with the university.

University Tutor (Teaching and Research Staff)

A lecturer from the university, who is responsible for students’s monitoring and support during their external experiential education period.

The learning methodology in this course is based on the scientific method for problem solving and the reflective practice, as a way to enable students to learn and acquire the knowledge and strategies to become reflective healthcare professionals.

Practicum I is an educational course with university supervision that enable students to apply the knowledge in the clinical setting to further competence development, clinical reasoning and problem solving, as well as communication and leadership skills. These are foundational to both the art and science of nursing, and prepare students as future health professionals to achieve success for developing their profession.

Practicum I approach stands on the importance of the individualized attention given to each nursing student independently. Each nursing student, monitored by the instructor and the university tutor will define his/her own learning outcomes according to established competences.

All credit hours are presential, according to the Real Decreto 1837/2008, which specifies that all nursing students are required to complete 2.300 hours of clinical practice.

During praticum learning process, at least three tutorials will be held:

First Tutorial. At the beginning of the external experiential education period. Learning contract will be undertaken.

Second Tutorial. At the mid-point of the external experiential education period. Students' learning process and the achievement of learning outcomes will be valued and enhanced, learning education process will be conducted.

Third Tutorial. At the end of the external experiential education period, practicum evaluation will be held, evaluation of the learning outcomes and competences established at the beginning of the course.

TYPES OF TEACHING

Types of teaching	M	S	GA	GL	GO	GCL	TA	TI	GCA
Hours of face-to-face teaching									
Horas de Actividad No Presencial del Alumno/a									

Legend: M: Lecture-based S: Seminar GA: Applied classroom-based groups
GL: Applied laboratory-based groups GO: Applied computer-based groups GCL: Applied clinical-based groups
TA: Workshop TI: Industrial workshop GCA: Applied fieldwork groups

Evaluation methods

- End-of-course evaluation

Evaluation tools and percentages of final mark

- Calificación correspondiente a la realización de las prácticas (Guía de Evaluación por Competencias).
Cada estudiante llevará a cabo una tarea asociada a su periodo de prácticas clínicas, que conllevará una pequeña reflexión sobre la práctica clínica desempeñada y que se evaluará en modo Apto/No Apto. Dicha tarea conllevará trabajo individual y/o trabajo en equipo. Si el/la estudiante no obtiene la calificación de apto la asignatura estará suspendida.
100%

ORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

Evaluation.-

The evaluation is a continuous process in which the students demonstrate and argue their learning process progress, as well as, competence improvement and achievement. University tutor will evaluate students' clinical practices, based on clinical instructor and students' own informs. according to established evaluation guidelines and tools.

According to established regulations for students' evaluation of official UPV/EHU's degrees, each student will have for this course one ordinary evaluation session each year only.

Clinical Practice Commission has the legal authority to decide in special and justified cases, the extension of the ordinary evaluation session within the academic year. This exception will not involve clinical practices that have been conducted and not approved for this session/call.

The subject's competency assessment guide is available on the website:
<https://www.ehu.eus/documents/10043056/12579363/Guia-evaluacion-2curso-Practicum-I.pdf/03ec1e4b-28a3-f18a-7437-46acec085851?t=1627365866371>

EXTRAORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

Extraordinary evaluation session: information and course dropping.-

None.

MANDATORY MATERIALS

Links.-

<https://egela.ehu.es/> Curso: Practicum I
<http://gestion.ehu.es/gaur>
<https://www.ehu.eus/es/web/enfermeria-leioa/praktika-klinikoak>

BIBLIOGRAPHY

Basic bibliography

- MARTÍNEZ MARTÍN ML, CHAMORRO REBOLLO E. Historia de la Enfermería. Evolución histórica del cuidado enfermero. 2ª edición. Barcelona: Elsevier; 2011.
- DONAHUE P. Historia de la Enfermería. Barcelona: Ediciones Doyma; 1985.
- ALLIGOOD MR. Modelos y teorías en enfermería. 8ª edición. Barcelona: Elsevier España; 2015.
- KOZIER B, ERB G. Fundamentos de Enfermería. Conceptos, proceso y práctica. 7º Edición. Madrid: Interamericana; 2005.
- POTTER P. Fundamentos de Enfermería. Teoría y práctica. 5º Edición. Madrid: Ed. Mosby-Doyma; 2001.
- LEAL COSTA C, CARRASCO GUIRAO JJ (Coords.) Fundamentos de Enfermería: cuidados básicos centrados en las necesidades de la persona. Murcia: Diego Marín Librero-Editor; 2010.
- BELLIDO VALLEJO JC, LENDINEZ COBO JF. Proceso Enfermero desde el modelo de cuidados de Virginia Henderson y los lenguajes NNN. Jaén: Ilstre Colegio Oficial de Enfermería de Jaén; 2010.
- ALFARO LEFEVRE R. Pensamiento crítico y juicio clínico en Enfermería. 4ª Edición. Madrid: Elsevier- Masson; 2009.

Detailed bibliography

- GONZÁLEZ JL. Historia de la enfermería. Madrid: Ediciones DAE; 2011.
- GARCÍA C, MARTÍNEZ ML. Historia de la Enfermería. Evolución Histórica del Cuidado Enfermero. Madrid: Ediciones Harcout; 2001.
- SELLÁN SOTO MC. La Profesión va por dentro. Elementos para una historia de la Enfermería Española contemporánea. 2ª Edición. Madrid: FUDEN; 2010.
- BENAVENT GARCÉS MA, FERRES FERRANDIS E, FRANCISCO DEL REY C. Colección Enfermería 21: Fundamentos de enfermería. 2ª Edición. Madrid: Difusión Avances de Enfermería (DAE); 2009.
- HENDERSON V. La naturaleza de la Enfermería. Reflexiones 25 años después. Madrid: Interamericana- Mc Graw-Hill; 1994.
- LUIS RODRIGO MT, FERNÁNDEZ FERRÍN C, NAVARRO GÓMEZ MV. De la teoría a la práctica. El pensamiento de Virginia Henderson en el siglo XXI. 2ª Edición. Barcelona: Ed. Masson; 2000.
- OREM DE. Modelo de Orem: conceptos de enfermería en la práctica. Barcelona: Editorial. Ediciones Científicas y Técnicas; 1993.

Journals

- Nursing Education in Practice
- Nursing Education Today

Web sites of interest

- Nursing Education in Practice
- Nursing Education Today

OBSERVATIONS

COURSE GUIDE

2024/25

Faculty327 - Faculty of Medicine and Nursing

Cycle.

DegreeGODONT30 - Bachelor`s Degree in Dentistry

YearFourth year

COURSE

27237 - Oral Medicine & Pathology II

Credits, ECTS:9

COURSE DESCRIPTION

The subject "ORAL PATHOLOGY AND MEDICINE II" is one of the compulsory subjects of the Degree in Dentistry. It is part of Module 4 called "PATHOLOGY AND DENTAL THERAPEUTICS", being the continuation of its predecessor "PATHOLOGY AND MOUTH MEDICINE I" which is taught in the 2nd year, during the 2nd four-month period. The general objective of this subject is for the student to acquire the necessary skills to be able to establish a diagnosis, a prognosis and develop the most appropriate therapies for the main diseases of the oral cavity and the adjacent maxillofacial structures. It is a subject with an eminent health character, which is fundamental in the development of Odontology as a Health Science and which is aimed at achieving the diagnosis of very important diseases, such as oral cancer, in order to be able to establish their adequate treatment. The work that will be developed in this subject will allow the student to know the main characteristics of oral and maxillofacial diseases, taking into account their local and systemic repercussions, in order to make an adequate diagnosis of these diseases, carry out their prevention, plan the most appropriate treatment and outline their prognosis. In order to be able to develop well in the subject of "Oral Pathology and Medicine II" and not have difficulties, it is necessary to have an established knowledge of the following subjects: Oral Pathology and Medicine I, Oral and Maxillofacial Pathology, Physiology, Microbiology and Immunology, and Pharmacology, among others.

COMPETENCIES/LEARNING RESULTS FOR THE SUBJECT

The teaching/learning of this subject presents 4 thematic blocks:
A. Oral Mucosal Pathology
B. Salivary Pathology
C. Regional Pathology
D. Bone Pathology

MODULE COMPETENCES

- 1.- The student must be competent in establishing a diagnosis, a prognosis and in the development of an adequate therapeutic plan in oral soft tissue pathology, bone pathology of the jaws and of the glands and adjoining structures. For the establishment of the diagnosis and treatment plan, the student must acquire the competence to take and interpret radiographs and other image-based diagnostic procedures relevant to dental practice in order to diagnose and establish the treatment plan.
- 3.- The student must be competent to identify patients requiring special care, recognising their characteristics and peculiarities.
- 4.- The student must be competent to indicate and carry out limited procedures of diagnostic techniques, both non-invasive and invasive in soft and hard tissues (biopsies).
- 5.- Be competent to manage acute infections, including pharmacological prescription and the simple surgical aspects necessary for their treatment.
- 6.- Be competent in the treatment of the most common oral and maxillofacial hard and soft tissue diseases.
- 7.- Be competent to collect scientific information corresponding to Pathology and Oral Medicine, analyse it, discuss it and summarise it, in order to express its main contents correctly, both in writing and orally.
- 8.- Be competent to work as part of a team, tackling cooperative tasks, helping in healthcare tasks, in the collection and analysis of clinical data, in the discussion of diagnoses and cooperation in treatments.
- 9.- The student must be competent to adopt a favourable attitude towards learning and continuous updating in Pathology and Oral Medicine.

LEARNING OUTCOMES:

- . -PBII1. Apply the fundamental knowledge of Oral Pathology and Medicine in the diagnosis, treatment and prevention of the main diseases of the oral and maxillofacial area.
- . -PBII2. Use the knowledge acquired in Pathology and Oral Medicine to resolve clinical cases in a coherent manner, make a differential diagnosis and a final diagnosis, establish a therapeutic approach and make a prognosis.
- . -PBII3. Work with scientific information corresponding to Pathology and Oral Medicine, in order to analyse, discuss, summarise and express ideas correctly, both in writing and orally.
- . -PBII4. Work in a team to tackle cooperative tasks in the context of Oral Medical Pathology: assist in care tasks, collect and analyse clinical data, discuss diagnoses and cooperate in treatments.
- . -PBII5. Adopt a favourable attitude towards learning pathology and oral medicine in dentistry as a health science, being proactive, participative and with a spirit of self-improvement in the face of learning difficulties and continuous updating.



Theoretical and Practical Contents

I. Introduction:

Topic 1.- Pathology and Oral Medicine. Concept and historical background. Planning. Objectives and Programming.

II. Non neoplastic pathology of the oral mucosa:

Elemental lesions of the oral mucosa.

Traumatic, physical, chemical and medicinal lesions of the oral mucosa.

Topic 4.- Viral stomatitis.

Bacterial stomatitis.

Topic 6.- Mycotic stomatitis.

Oral mucosal diseases I: Aphthous ulcers.

Diseases of the oral mucosa II: Leukoplakia and Erythroplakia.

Immunological based diseases I: Oral lichenoid disease.

Immunological based diseases II: Pemphigus and Pemphigoid. Erythema multiforme. Desquamative gingivitis.

Immune-based diseases III: Lupus erythematosus. Other dermatoses with oral repercussions.

III. Neoplastic pathology of the oral mucosa:

Benign neoplasms of the oral mucosa.

Oral cancer: squamous cell oral carcinoma I.

Oral squamous cell carcinoma II.

Oral squamous cell carcinoma III.

Oral cancer: Other malignant neoplasms.

IV. Salivary pathology:

Functional alterations of the salivary glands.

Sialolithiasis and sialoadenitis.

Salivary cysts and neoplasia. Other sialopathies.

Salivary neoplasms.

V. Regional pathology:

Topic 21.- Pathology of the lips.

Pathology of the jugal region. Pathology of the palate. Pathology of the floor of the mouth.

Pathology of the tongue I.

Pathology of the tongue II.

Pathology of the tongue III.

Pathology of the neck.

VI. Bone pathology:

Bone dystrophies.

Osteomyelitis and osteonecrosis.

Cysts of the jaws.

Odontogenic neoplasms.

Other neoplasias of the jaws.

Malformative syndromes with orofacial repercussion.

TEACHING METHODS

In this course we will try to use different methodologies:

- Lectures for the acquisition of theoretical and practical competences.
- Seminars for the acquisition of theoretical and practical competences. In Groups with a Tutor Teacher.
- Classroom practice for the acquisition of theoretical and practical competences.
- Clinical practicals for the acquisition of practical competences. Each group of 6 students will have a Tutor Teacher.

Teaching will be face-to-face or distance learning, as determined by the UPV/EHU in its syllabus.

Types of teaching

Types of teaching	M	S	GA	GL	GO	GCL	TA	TI	GCA
Hours of face-to-face teaching	32	9	20			45			
Horas de Actividad No Presencial del Alumno/a	65	21	10			23			

Legend: M: Lecture-based S: Seminar GA: Applied classroom-based groups
GL: Applied laboratory-based groups GO: Applied computer-based groups GCL: Applied clinical-based groups
TA: Workshop TI: Industrial workshop GCA: Applied fieldwork groups

Evaluation methods

- Continuous evaluation
- End-of-course evaluation

Evaluation tools and percentages of final mark

- Written test, open questions 35%
- Multiple choice test 35%
- Exercises, cases or problem sets 20%
- Teamwork assignments (problem solving, Project design) 5%
- Oral presentation of assigned tasks, Reading 5%

ORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

The general evaluation of the subject is continuous, with evaluation of the theoretical content by means of individual written tests and of the practical content by means of continuous evaluation of the competences acquired in the clinical practicals, in the classroom practicals and in the seminars.

The individual written tests will account for 70% of the total mark for the course. They will consist of:

- Partial written exam (Topics 1 to 16) with 50 multiple-choice questions and 5 short questions.
- Final written exam (Topics 1 to 32) with 100 multiple-choice questions and 10 short questions, including clinical cases.

The exam will be face-to-face or non-face-to-face as determined by the UPV/EHU.

In order to pass the course, a grade of at least 5/10 must be obtained in the theoretical assessment.

The continuous assessment of the clinical practicals, classroom practicals and clinical seminars will constitute 30% of the final grade.

In order to pass the course, a grade of 7/10 in the practical part of the course and an attendance/participation in the practical part of the course of 75% will be required.

Attendance/participation in all the practical content of the course is compulsory.

Students who so request may opt for a single Final Examination, which will be both theoretical and practical, with as many exams as necessary to assess the learning required in the whole of this discipline.

Failure to take the compulsory practical activities must be justified, in all cases, in accordance with the regulations in force at the UPV/EHU.

PLAGIARISM:

Students may not present a copy or imitation of a work carried out by a third party as if it were their own. Students must know and use the rules of citation. The existence of plagiarism may lead to the rejection of the work and consequently, the failure of the subject.

In order to waive the ordinary exam, it will be enough if they do not present themselves for the exam. In addition, students may submit their resignation from the assessment period by writing to the lecturer coordinating the subject no less than 10 calendar days before the start date of the official exam period.

EXTRAORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

Given that attendance/participation in the seminars, classroom practicals and clinical practicals is compulsory, those students who, despite having attended them and having a positive evaluation, and after taking the final exam, fail the subject in the ordinary exam session, must take a single final theoretical exam consisting of a written test of multiple-choice questions and short questions with clinical case resolution.

In the case of choosing the final exam instead of the continuous assessment, students must take a written exam and all the tests necessary for the evaluation of the acquisition of the practical competences of the subject itself, as reflected in the section of the ordinary call.

In order to waive the extraordinary call, it will be sufficient not to take it.

MANDATORY MATERIALS

Written documents (books, articles, practice notebooks, etc.), computer documents (websites, blogs, notes, messages, emails, etc.) and teaching guides.

Clinical practice equipment and materials.



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Basic bibliography

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- Greenberg MS, Glick M, Ship JA. Burkets Oral Medicine (11º Ed). Hamilton, BC Decker Inc, 2008.
- Neville BW, Damm DD, Allen CM, Chi AC. Oral and Maxillofacial Pathology (4º Ed), Filadelfia, Elsevier, 2015.
- Odell, E. Cawson Fundamentos de Medicina y Patología Oral (9ª Ed.). Barcelona, Elsevier, 2018
- Loscalzo J, Fauci A, Kasper D, Hauser S, Longo D. Harrison. Principios de Medicina Interna (21º Ed). Madrid, McGraw-Hill, 2018.

Detailed bibliography

- Databases: Pubmed, Medline
- On-line training activities of the Spanish Society of Oral Medicine (SEMO) and the Iberoamerican Academy of Oral Pathology and Oral Medicine (AIPMB)

Journals

- New England Journal of Medicine
- Medicina Oral
- Patologia Oral
- Cirugía Bucal
- The Lancet
- Journal of Oral Pathology and Medicine
- Oral Oncology
- Haed&Neck
- Journal of Oral and Maxillofacial Surgery
- Oral Surgery
- Oral Medicine
- Oral Pathology
- Oral Radiology and Endodontics
- Archives of Oral Biology

Web sites of interest

- www.aaom.com
- www.bsom.org.uk
- www.oralpath.com

OBSERVATIONS

COURSE GUIDE

2024/25

Faculty

327 - Faculty of Medicine and Nursing

Cycle

.

Degree

GODONT30 - Bachelor`s Degree in Dentistry

Year

Third year

COURSE

27230 - Periodontics I

Credits, ECTS: 6

COURSE DESCRIPTION

Periodontics I (code 27230) is a compulsory subject, which belongs to module IV (Dental Pathology and Therapeutics), and is taught in Spanish and Basque, during the second semester of the third year of the Degree in Dentistry. This subject consists of 6 ECTS credits, with a student`s total dedication of 150 hours, divided into 60 classroom hours and 90 non-classroom hours.

Why is this subject important? How important is it for the development of my profession?
Periodontics is the science that studies the diseases that affect the supporting tissues of the teeth and/or their substitutes (dental implants), such as gingival diseases, periodontitis and peri-implant diseases (mucositis, peri-implantitis, apical lesions associated with dental implants), as well as their treatment.

The aim of the subject is for students to learn about the periodontal and peri-implant supporting tissues and to acquire the necessary skills to establish a diagnosis, a prognosis and a non-surgical approach when facing any periodontal and peri-implant pathology, also knowing its repercussions at both local and systemic levels. Based on this knowledge, the students` directed, cooperative, and autonomous learning will help them in the analysis and decision-making processes when solving simulated clinical cases, in which diagnostic and therapeutic actions (basic periodontal treatment or non-surgical periodontal treatment will be applied. Also, the hands-on workshops that are carried out in the laboratory, on simulated anatomical models (periodontal phantoms), will allow the students to avoid mistakes in their clinical practices, which will take place in the following academic years.

Relationship with other subjects:
The development of Periodontics I requires a deep knowledge of the previous subjects studied during the first and second year of Dentistry, such as Anatomy, Cell Biology, Human Histology, Physiology, Microbiology and Immunology, Radiology and Physical Medicine and Dental Prosthesis I. This knowledge is essential to identify, explain and associate the concepts that will be addressed in Periodontics I and, therefore, to be able to apply them properly in the resolution of basic illustrative clinical cases.
Given its basic character, Periodontics I is considered a keystone for other subjects in which clinical practices are carried out, thus requiring an adequate knowledge of the anatomical, clinical and radiographic characteristics of the healthy or diseased periodontal and peri-implant tissues, such as Periodontics II, Dental Prosthesis II and III, Dental Pathology and Therapeutics II, Oral Pathology and Medicine II and Integrated Adult Practice (IAP) I and II, among others. Particularly, the subject Periodontics I is complemented by Periodontics II, which is taught during the first semester of the fourth year, where students will acquire the theoretical knowledge about corrective treatments and supportive periodontal therapy (SPT), as well as the interrelation with other dental disciplines (Orthodontics, Dental Pathology and Therapeutics, Prosthetics...) in the periodontal patient. Also, in this subject, supervised clinical practice on patients will be performed.

Other recommendations:
As new digital tools for teaching are being implemented in this subject, having basic computer skills is recommended, as well as knowledge about presentation softwares (PowerPoint/Keynote) and technical English, since the scientific literature is mostly published in this language.

Professors of the subject:
Ruth Estefanía Fresco (Associate Teacher) (Bilingual)
Aitziber Fernández Jiménez (Assistant Professor) (Bilingual)

Coordinator of the subject: Aitziber Fernández Jiménez

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<https://www.ehu.eus/es/web/graduak/grado-odontologia/profesorado>; To know tutoring hours, click on the teacher's name.

COMPETENCIES/LEARNING RESULTS FOR THE SUBJECT

Specific competences (C):

C1: The student will be able to establish an appropriate treatment, prognosis and diagnosis of the pathology of peri-implant and periodontal tissues.

C2: The student will be able to establish a multidisciplinary, sequential and integral treatment, with a limited complexity, in patients of all ages and conditions and with special needs (diabetes, hypertension, cancer, transplants, immunodeficiencies, anticoagulants...).

C3: The student will be able to establish a diagnosis and a treatment plan, taking X-rays and interpreting imaging procedures that are relevant to the dental practice.

C4: The student will be able to define and identify the patient's aesthetic conditions to satisfy his concerns.

C5: The student will be able to establish an appropriate periodontal treatment plan, including the application of local anesthesia techniques, non-surgical, pharmacologic and surgical treatment of the inflammatory processes around periodontal and/or peri-implant tissues, such as supra and subgingival periodontal instrumentation techniques (scaling and root planing, tartar removal and debridement). Additionally, the students will be able to manage acute periodontal infections, including the prescription of any appropriate medication and performing simple surgical procedures. They will also be proficient in identifying and addressing dental emergencies, thus providing the patient with suitable dental care.

Transversal competences:

C6: The student will be able to work collaboratively as part of a team in cooperative Periodontology tasks. This includes aiding in clinical tasks, discussing clinical cases, and collaboratively formulating provisional, differential and final diagnoses. Subsequently, they will contribute to developing a comprehensive and multidisciplinary treatment plan for the patient.

C7: The student will be able to develop self-learning skills in periodontics.

C8: The student will be able to develop oral and written communication skills using the appropriate terminology in each context.

Learning outcomes of the subject (LO): The following are the LO that students will demonstrate at the end of the course, correlated with their respective competences.

LO related to competences 1 and 4:

LO1. Identify key elements of Periodontics and Osteointegration, to perform the diagnosis, prevention and treatment of periodontal (PD) and peri-implant (PI) diseases.

LO related to competences 2, 3 and 4:

LO2. Students will be able to correctly perform the clinical history, as well as the exam of the periodontal and peri-implant tissues.

LO3: Students will be able to consistently analyze the signs and symptoms of simulated clinical cases and, based on scientific evidence, reach a differential and a final diagnosis of PD and PI diseases.

LO4: Students will be able to correctly identify and request the necessary complementary tests (radiological, serological and microbiological) for establishing the diagnosis and prognosis of PD and PI diseases.

LO5: Based on the analysis of the data obtained from the different diagnostic tests, the students will be able to correctly establish an individual and general prognosis of PD and PI diseases, as well as a comprehensive treatment plan.

LO related to competence 5:

LO6: Students will be able to correctly perform, in a periodontal simulation model (periodontal phantom), the scaling and root planning techniques, which are the keystone of non-surgical periodontal treatment on patients.

LO related to competence 6:

LO7: Students will be able to collaborate on clinical tasks (periodontal chart and radiographic sequence), to analyze the information about the clinical case and to propose an initial or presumptive diagnosis, a differential diagnosis and a final diagnosis, as well as multidisciplinary and integral treatment plans for the simulated cases.

LO related to competence 7:

LO8: Students will be able to analyze, in an autonomous and collaborative way, the most important scientific information in the field of periodontics, for its implementation in the resolution of specific cases in this area.

LO related to competence 8:

LO9: Students will be able to use appropriate academic terminology and writing in the portfolio and in the final report.

LO10: Students will be able to use appropriate terminology and oral language in the different proposed scenarios (simulated situations between patient and professional dentists).

Theoretical and Practical Contents

1. Theoretical content: It shall be provided between weeks 16 and 28, on Thursdays in the pre-established hours of the Faculty. The theoretical contents are divided into five thematic blocks:

(A) Introduction, morphology and functions of the periodontium and the healthy peri-implant tissues:

Lesson 1: Anatomy of the periodontium (2 hours)

Lesson 2.- Similarities and differences between the periodontal and the peri-implant mucosa (1 hour)

(B) Periodontal pathology:

Lesson 3.- Etiology of periodontal diseases. Microbiology: Oral biofilm and calculus (1 hour)

Lesson 4.- Pathogenesis and pathocronology of periodontal diseases (1 hour)

Lesson 5.- Etiology of biological complications around implants: mucositis/peri-implantitis, periapical lesions around implants and soft tissue deficiencies around implants (1 hour)

Lesson 6.- Host-response modifying factors and individual susceptibility (1 hour)

Lesson 7.- Epidemiology of periodontal diseases (1 hour)

(C) Nosological entities and differential diagnosis:

Lesson 8.- Gingivitis: Bacterial plaque-induced and non-plaque-induced gingival inflammation (1 hour)

Lesson 9.- Periodontitis (1) (1 hour)

Lesson 10.- Periodontitis (2) (1 hour)

Lesson 11.- Modifications of the gingival margin: gingival recession (1 hour)

Lesson 12.- Modifications of the gingival margin: gingival enlargement (1 hour)

Lesson 13.- Acute periodontal lesions (1 hour)

Lesson 14.- Occlusal trauma in periodontal and peri-implant tissues (1 hour)

Lesson 15.- Endo-periodontal lesions (1 hour)

Lesson 16.- The relationship between periodontal disease and systemic diseases (1 hour)

(D) Diagnosis, prognosis and treatment plan:

Lesson 17.- Diagnosis of periodontal disease: periodontal assessment (1 hour)

Lesson 18.- Prognosis and periodontal treatment plan. Treatment planning in periodontal patients using dental implants (1 hour)

(E) Basic periodontal treatment:

Lesson 19.- Cause-related periodontal treatment I: Patient's motivation for the bacterial plaque control.

Mechanical and chemical control of the supragingival bacterial plaque (1 hour)

Lesson 20.- Cause-related periodontal treatment II: Scaling and root planing (1 hour)

Lesson 21.- Treatment of biological complications around dental implants (2 hours)

2. Practical Contents: Practical content will be provided between weeks 16 and 29, on Thursdays in the pre-established hours of the Faculty (see schedule and groups).

2.1 Seminars (S):

S1.- Instrumental used in periodontics (2 hours)

S2.- Motivation and oral hygiene instructions in periodontics. Periodontal assessment (2 hours)

S3.- Radiographic periodontal diagnosis (radiographic series) (2 hours)

S4 and S5.- Clinical case seminars (2 hours per seminar)

2.2.- Laboratory Practices (LP):

LP1, LP2 and LP3.- Clinical Periodontal Assessment: Periodontal chart. Bacterial plaque control. Motivation. Oral hygiene instructions

LP4.- Handling of film holders for taking radiographs with the parallel technique

LP5.- Sharpening of curettes and preparation of the periodontal phantom*

LP6.- Scaling and root planing on periodontal models (phantoms): Columbia 13/14 and Gracey 13/14 curettes*

LP7.- Scaling and root planing on periodontal models (phantoms): Columbia 4R/4L and Gracey 11/12 curettes*

LP8.- Scaling and root planing on periodontal models (phantoms): Gracey 5/6 curette*

LP9.- Scaling and root planing on periodontal models (phantoms): Gracey 7/8 and 9/10 curettes*

LP10.- Scaling and root planing on periodontal models (phantoms): Full quadrant*

LP11.- Scaling and root planing on periodontal models (phantoms): Both maxillae*

LP12.- Scaling and root planing on periodontal models (phantoms): Natural teeth*

* During the development of LP 4-12, each week, the students (in groups of six) will attend the clinical practices of the master's degree in Periodontics and Osteointegration as observers.

TEACHING METHODS

In order for students to achieve their learning outcomes (LO), several methodologies will be used, including:

LO1: The acquisition of basic knowledge in Periodontics and Osteointegration for the diagnosis, prevention and treatment of periodontal and peri-implant diseases will be achieved through master classes for the entire group. All the concepts of this subject will be explicitly explained, and the fundamental concepts will be treated interactively. To complete LO1,

students will study them in more detail through self-learning (LO8), through basic and deepening bibliography, completing activities in the virtual classroom (eGela) and consolidating knowledge through personalized tutoring.

LO2, 3, 5, 7, 8, 9 and 10: They will be developed through seminars using a methodology based on clinical cases and case problems. Seminars will be held in double sessions and students will be divided into small cooperative groups.

LO2 and 4: They will be developed through Seminars 2 and 3 and Laboratory Practices 1, 2 and 3, scheduled for weeks 18-20.

LO6 and 7: They will be developed through laboratory practices in simulated models (periodontal phantoms), in teams supervised by the tutoring teacher, so that through these LPs they can acquire the practical skills that will be necessary when performing clinical practices in fourth grade.

Application of new technologies as a complementary tool:
Virtual classrooms (e-Gela) will be used as a complement to face-to-face teaching.

Types of Teaching

Types of teaching	M	S	GA	GL	GO	GCL	TA	TI	GCA
Hours of face-to-face teaching	23	10		32					
Horas de Actividad No Presencial del Alumno/a	44	20		21					

Legend: M: Lecture-based S: Seminar GA: Applied classroom-based groups
GL: Applied laboratory-based groups GO: Applied computer-based groups GCL: Applied clinical-based groups
TA: Workshop TI: Industrial workshop GCA: Applied fieldwork groups

Evaluation methods

- Continuous evaluation
- End-of-course evaluation

Evaluation tools and percentages of final mark

- Multiple choice test 70%
- Exercises, cases or problem sets 15%
- Teamwork assignments (problem solving, Project design) 15%

Ordinary Examination Period: Guidelines and Opting Out

General aspects of evaluation (continuous and final) applicable to all types of evaluation:

- Attendance and completion of practical content: Attendance is mandatory, and all practical content must be independently developed and passed, since it allows achieving 75% of the LO of the subject. Thus, non-attendance cannot exceed the limits settled in the regulations and must be duly justified. (UPV/EHU student regulations, November 2016 resolution, (https://www.ehu.eus/documents/3026289/3106907/Reglamento_Alumnado_UPV_EHU.pdf))
- Plagiarism: No copy or imitation of the work done by third parties may be presented as one's own. Students must know how to cite and use references. The suspicion of plagiarism may cause turning down the work and, consequently, failing the subject.
- Evaluation system of preference and minimum requirements for passing the subject: Whenever possible, a continuous evaluation will be carried out. In order to pass the subject, the theoretical and practical contents must be passed independently.
- Final evaluation (requirements): If a student refuses the continuous evaluation and requests a single final test, he/she must confirm his/her attendance in advance (at least 3 weeks before the test). If failing to do so, or not showing up the day of the exam will automatically result in failing the subject in both the ordinary and the extraordinary call.

Evaluation with 100% face-to-face teaching.

-Continuous evaluation. The evaluation will consist of:

- Theoretical test: (70% of the final result)

The exam will be a multiple-choice test, with 4 confounders and only one valid answer:

- Correct answers will be worth 1 point.
- Unanswered questions will be worth 0 points.
- Wrong answers will have a value of -0.5 points.



A minimum of 5 points over 10 will have to be obtained in the written test in order to add this result to the rest of the evaluation and thus be able to pass the subject.

2. Continuous evaluation of the activities of the Seminars and Laboratory Practices, using the following tools:

2.1. The individual's digital portfolio, consisting of the individual portfolio and six items, corresponding to the activities carried out in Seminars 1-5 and in LP 1-3 (15%). The evaluation criteria are described in the Student's Guide.

2.2. A checklist to assess the student's competences in the laboratory, which will be completed through direct observation during LP 4-12 (15%). The evaluation criteria are specified in the Student's Guide.

-Final evaluation. Students who request so, may choose a final test, with a theoretical and a practical part, as follows:

1. Theoretical content: (70% of the final result)

The exam will be a multiple-choice test, with 4 confounders and a single valid answer, with 0.50 negative points for the wrong answers.

2. Practical content: (30% of the final result)

2.1. For the evaluation of the practical contents of the seminars, a clinical case shall be solved (10% of the practical result).

2.2. Complete periodontal exploration (periodontal chart and periodontal radiographic series) (15% of the practical result)

2.3. Practical analysis of the instrumental used in seminars and laboratory practices (15% of the practical result)

2.4. Root planing and scaling in periodontal simulation models (60% of the practical result)

In order to pass the subject, both theoretical and practical contents must be independently passed, with a minimum of 5 points over 10 in the written test and 7 over 10 in the practical test.

If, for epidemiological reasons, a face-to-face evaluation would NOT be possible, a final assessment will be made according to such conditions.

-Evaluation of semi-face-to-face education derived from the aforementioned epidemiological situation:

Continuous evaluation of all the face-to-face and the telematic teaching activities, considering the general evaluation criteria.

1. Evaluation of the theoretical content (70%): A written or oral test will be conducted via eGela.

2. Evaluation of the practical content (30%): Through the individual digital portfolio and the continuous evaluation via checklist of the face-to-face laboratory practices and seminars.

In order to pass the subject, a minimum of 5 points over 10 must be obtained in the written test, in order to add this result to the rest of the evaluation.

EXTRAORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

As in the ordinary call, the same percentages are maintained in this call: 70% theoretical content and 30% practical content.

Since attendance to seminars and laboratory practices is compulsory, if the evaluation is positive, this result will be kept even for students who have failed the ordinary call, so that they will only have to do a written theoretical test.

The criteria mentioned in the ordinary call are also maintained regarding a possible epidemiological emergency.

-Final evaluation: All students who request it, according to the UPV/EHU student regulations

(<https://www.ehu.eus/es/web/graduak/normativa/evaluacion-del-alumnado-en-las-titulaciones-oficiales-de-grado>) may choose a final evaluation, which will consist of a written final test and a practical test, in the same way as in the regular call.

To refuse both ordinary and extraordinary calls, it will be enough not attending the exam.

MANDATORY MATERIALS

Seminars:

-University Manual: "Guía práctica de periodoncia". ISBN: 978-84-1319-549-0 (digital). Link: <https://web-argitalpena.adm.ehu.es/listaproductos.asp?IdProducts=UMEPD235490>



- Material for seminars provided by the Faculty of Medicine and Nursing
- Device with Internet connection: laptop/tablet/mobile phone

Laboratory practices:

- University manual: "Guía práctica de periodoncia" and teaching materials
- Lab coat or clinical pyjamas
- Lab material provided by the Faculty of Medicine and Nursing
- Periodontal simulation model provided by the Faculty of Medicine and Nursing
- Transparent nail polish (to be carried by the student)

BIBLIOGRAPHY

Basic bibliography

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- Aguirre-Zorzano L.A., Estefanía-Fresco R., Fernández-Jiménez A., García-De-La-Fuente AM. "Tratamiento periodontal no-quirúrgico". EHU.OCW 2018; <https://ocw.ehu.eus/course/view.php?id=470>
- Aguirre Zorzano LA, Estefanía-Fresco R, Fernández-Jiménez A, García-De-la-Fuente AM. "Enfermedades periodontales y periimplantarias: nuevas claves diagnósticas". EHU.OCW 2022; <https://ocw.ehu.eus/course/view.php?id=585>
- Berglundh et al.(2021). Lindhe´s Clinical Periodontology and Implant Dentistry. 7th edition, ed. Wiley Blackwell, Munksgaard
- Chambrone L. & Ávila Ortiz G. (2022). Tissues: Critical Issues in Periodontal and Implant-related Plastic and Reconstructive Surgery. Quintessence Publishing Company, Incorporated, 2022. ISBN: 0867159634
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- Sato N. (2002). Cirugía periodontal: Atlas clínico. Ed Quintessence S.L. Barcelona
- Zuhr O. & Hürzeler M. (2012). Plastic-Esthetic Periodontal and Implant Surgery. A microsurgical approach. Quintessence Publishing

Learning material in video (EHUTB) in Spanish:

- Aguirre-Zorzano LA, Estefanía-Fresco R, Fernández-Jiménez A, García-De-La-Fuente A M.(2018). Higiene interdental. <https://ehutb.ehu.eus/video/5af05e17f82b2b1b738b4994>
- Aguirre-Zorzano LA, Estefanía-Fresco R, Fernández-Jiménez A, García-De-La-Fuente A M.(2018). Técnica de Bass modificada. <https://ehutb.ehu.eus/video/5af004aef82b2bcd718b49a6>
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Detailed bibliography

Scientific journals (in English):

- Periodontology 2000 
- Journal Clinical of Periodontology 
- Clinical Oral Implant Research 
- Journal of Periodontology 
- International Journal of Periodontics and Restorative Dentistry 
- Journal of Periodontal Research …

Databases:

- PubMed; <https://www.ncbi.nlm.nih.gov/pubmed/>
- ISI Web of Knowlegde; <https://www.recursoscientificos.fecyt.es/>

- Scopus; <https://www.recursoscientificos.fecyt.es/>
- Cochrane Library; <https://www.cochranelibrary.com/>

Journals

Scientific journals (in Spanish):

- Periodoncia Clínica (Replaces the magazine “Periodoncia y Osteointegración”);
http://www.sepa.es/web_update/periodoncia-clinica-presentacion/
- Periodoncia y Osteointegración: http://www.sepa.es/web_update/po-home/

Web sites of interest

- Sociedad Española de Periodoncia (SEPA): <http://www.sepa.es/>
- European Federation of Periodontology (EFP): <https://www.efp.org/>
- American Academy of Periodontics (AAP): <https://www.perio.org/>

OBSERVATIONS

COURSE GUIDE

2024/25

Faculty327 - Faculty of Medicine and Nursing

Cycle.

DegreeGODONT30 - Bachelor`s Degree in Dentistry

YearFourth year

COURSE

27231 - Periodontics II

Credits, ECTS:6

COURSE DESCRIPTION

Periodontics II (code 27231) is a compulsory subject, which belongs to module IV (Dental Pathology and Therapeutics), and is taught in Spanish and Basque, during both semesters of the fourth year of the Degree in Dentistry. It is the continuation of its predecessor Periodontics I.

This subject consists of 6 ECTS credits, with a student`s total dedication of 150 hours, divided into 60 classroom hours and 90 non-classroom hours.

Why is this subject important? How important is it for the development of my profession?Periodontics is the science that studies the diseases that affect the supporting tissues of the teeth and/or their substitutes (dental implants), such as gingival diseases, periodontitis and peri-implant diseases (mucositis, peri-implantitis, apical lesions associated with dental implants), as well as their treatment.

The aim of the subject is for students to learn about the periodontal and peri-implant supporting tissues and to acquire the necessary skills to establish a diagnosis, a prognosis and a non-surgical approach when facing any periodontal and peri-implant pathology, also knowing its repercussions at both local and systemic levels. Based on this knowledge, the students` directed, cooperative, and autonomous learning will help them in the analysis and decision-making processes when solving simulated clinical cases, in which diagnostic and therapeutic actions (basic periodontal treatment or non-surgical periodontal treatment will be applied.

Also, the hands-on workshops that are carried out in the laboratory, on simulated anatomical models (periodontal phantoms), will allow the students to avoid mistakes in their clinical practices, which will take place in the following academic years.

Relationship with other subjects:

The development of Periodontics II requires a deep knowledge of the previous subjects studied during the second and third year of Dentistry, such as Anatomy, Cell Biology, Human Histology, Physiology, Microbiology and Immunology, Radiology and Physical Medicine, Dental Prosthesis I and its predecessor, Periodontics I. The knowledge acquired in the late subject is key to identify, explain and associate the concepts that will be studied in Periodontics II and, thus, be able to apply them properly when solving simulated clinical cases or during the clinical practices with patients.

The subject Periodontics II will also be useful during the clinical practices of other subjects in which knowledge about the clinical and radiographic characteristics of the healthy and diseased periodontal and peri-implant tissues is necessary, such as Dental Prosthesis III, Dental Pathology and Therapeutics II, Oral Pathology and Medicine II and Integrated Adult Practice I and II, among others.

Other recommendations:

As new digital tools for teaching are being implemented in this subject, having basic computer skills is recommended, as well as knowledge about presentation softwares (PowerPoint/Keynote) and technical English, since the scientific literature is mostly published in this language.

Professors of the subject:

Dr. Ruth Estefanía Fresco (Associate Teacher) (Bilingual)
Dr. Aitziber Fernández Jiménez (Assistant Professor) (Bilingual)
Dr. Ana María García De La Fuente (Associate Professor) (Bilingual)

Coordinator of the subject: Dr. Ruth Estefanía Fresco

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<https://www.ehu.eus/es/web/graduak/grado-odontologia/profesorado>; To know tutoring hours, click on the teacher's name.

COMPETENCIES/LEARNING RESULTS FOR THE SUBJECT

Specific competences (C):

C1: The student will be able to establish an appropriate treatment, prognosis and diagnosis of the pathology of peri-implant and periodontal tissues.

C2: The student will be able to establish a multidisciplinary, sequential and integral treatment, with a limited complexity, in patients of all ages and conditions and with special needs (diabetes, hypertension, cancer, transplants, immunodeficiencies, anticoagulants…).

C3: The student will be able to establish a diagnosis and a treatment plan, taking X-rays and interpreting imaging procedures that are relevant to the dental practice.

C4: The student will be able to define and identify the patient's aesthetic conditions to satisfy his concerns.

C5: The student will be able to establish an appropriate periodontal treatment plan, including the application of local anesthesia techniques, non-surgical, pharmacologic and surgical treatment of the inflammatory processes around periodontal and/or peri-implant tissues, such as supra and subgingival periodontal instrumentation techniques (scaling and root planing, tartar removal and debridement). Additionally, the students will be able to manage acute periodontal infections, including the prescription of any appropriate medication and performing simple surgical procedures. They will also be proficient in identifying and addressing dental emergencies, thus providing the patient with suitable dental care.

Transversal competences:

C6: The student will be able to work collaboratively as part of a team in cooperative Periodontology tasks. This includes aiding in clinical tasks, discussing clinical cases, and collaboratively formulating provisional, differential and final diagnoses. Subsequently, they will contribute to developing a comprehensive and multidisciplinary treatment plan for the patient.

C7: The student will be able to develop self-learning skills in periodontics.

C8: The student will be able to develop oral and written communication skills using the appropriate terminology in each context.

Learning outcomes of the subject (LO):

The following are the LO that students will demonstrate at the end of the course, correlated with their respective competences.

LO related to competences 1 and 4:

LO1. Identify key elements of Periodontics and Osteointegration, to perform the diagnosis, prevention and treatment of periodontal (PD) and peri-implant (PI) diseases.

LO related to competences 2, 3 and 4:

LO2. Students will be able to correctly perform the clinical history, as well as the exam of the periodontal and peri-implant tissues.

LO3: Students will be able to consistently analyze the signs and symptoms of simulated clinical cases and, based on scientific evidence, reach a differential and a final diagnosis of PD and PI diseases.

LO4: Students will be able to correctly identify and request the necessary complementary tests (radiological, serological and microbiological) for establishing the diagnosis and prognosis of PD and PI diseases.

LO5: Based on the analysis of the data obtained from the different diagnostic tests, the students will be able to correctly establish an individual and general prognosis of PD and PI diseases, as well as a comprehensive treatment plan.

LO related to competence 5:

LO6. Students will be able to properly perform scaling and root planing techniques in patients (keystone of non-surgical periodontal treatment).

LO related to competence 6:

LO7: Students will be able to collaborate on clinical tasks (periodontal chart and radiographic sequence), to analyze the information about the clinical case and to propose an initial or presumptive diagnosis, a differential diagnosis and a final diagnosis, as well as multidisciplinary and integral treatment plans for the simulated and real cases.

LO related to competence 7:

LO8: Students will be able to analyze, in an autonomous and collaborative way, the most important scientific information in the field of periodontics, for its implementation in the resolution of specific cases in this area.

LO related to competence 8:

LO9: Students will be able to use appropriate academic terminology and writing in the portfolio and in the final report.

LO10: Use of appropriate terminology and oral language adapted to different situations: dentist-patient, between professionals.



Theoretical and Practical Contents

1.-Theoretical content:

Theoretical content will be taught between weeks 1-6, on Wednesdays in the hours previously established by the Faculty (see chronogram and groups).

(A) Surgical periodontal treatment:

Lesson 1.- General principles of periodontal surgery. Gingivectomy and Gingivoplasty. (2 hours)

Lesson 2.- Access periodontal surgery: flaps (1 hour)

Lesson 3.- Osseus periodontal surgery (1 hour)

Lesson 4.- Treatment of furcation lesions (1 hour)

Lesson 5.- Periodontal regenerative surgery (1 hour)

Lesson 6.- Plastic periodontal surgery - mucogingival surgery (1 hour)

Lesson 7.- Implant installation surgery. General principles (1 hour)

Lesson 8.- Supportive Periodontal Therapy - maintenance phase (1 hour)

(B) Periodontics and other disciplines:

Lesson 9.- Relationship between Periodontics and other disciplines I: Prosthesis and Conservative Dentistry (1 h)

Lesson 10.- Relationship between Periodontics and other disciplines II: Orthodontics and Periodontics; Implantology and Periodontics (2 hours)

2.-Practical contents:

Practical contents will take place between weeks 1-15, on Wednesdays and Fridays and, from week 16 to week 30, on Fridays in the hours previously established by the Faculty (see chronogram and groups).

2.1.- Clinical seminars: 15 hours of clinical seminars, in which simulated clinical cases will be solved, using active methodologies (case-problem) in small groups and then with the whole group.

2.2.- Clinical practices with patients:

Clinical practices will take place in the Dental Clinic Service of the UPV/EHU, in couples, under the supervision of the responsible tutoring teacher. During each clinical session (3 hours), the following procedures will be performed:

• Periodontal exam: Periodontal chart and radiographic periodontal series, to be able to establish a periodontal diagnosis, prognosis and a treatment plan

• Non-surgical or minimally invasive periodontal therapy, including:

- oMotivation

- oOral hygiene instructions and plaque control

- oSupragingival mechanical debridement

- oSubgingival mechanical debridement: Scaling and root planing

• Reevaluation of the clinical cases

• Supportive periodontal treatment or periodontal maintenance

TEACHING METHODS

In order for students to achieve their learning outcomes (LO), several methodologies will be used, including:

LO1: The acquisition of basic knowledge in Periodontics and Osteointegration for the diagnosis, prevention and treatment of periodontal and peri-implant diseases will be achieved through master classes for the entire group. All the concepts of this subject will be explicitly explained, and the fundamental concepts will be treated interactively. To complete LO1, students will study them in more detail through self-learning (LO8), through basic and deepening bibliography, completing activities in the virtual classroom (eGela) and consolidating knowledge through personalized tutoring.

LO2, 3, 4, 5, 7, 8, 9 and 10: They will be developed through seminars using a methodology based on clinical cases and case problems. Seminars will be held in double sessions and students will be divided into small cooperative groups.

LO2, 3, 4, 5, 6, 7, 8, 9 and 10: They will be acquired through clinical practice with patients in the Dental Clinic Service of the UPV/EHU, in groups supervised by the professor in charge.

Application of new technologies as a complementary tool:

Virtual classrooms (e-Gela) will be used as a complement to face-to-face teaching.

Types of teaching

Types of teaching	M	S	GA	GL	GO	GCL	TA	TI	GCA
Hours of face-to-face teaching	12	15				45			
Horas de Actividad No Presencial del Alumno/a	25	30				23			

Legend: M: Lecture-based S: Seminar GA: Applied classroom-based groups
GL: Applied laboratory-based groups GO: Applied computer-based groups GCL: Applied clinical-based groups
TA: Workshop TI: Industrial workshop GCA: Applied fieldwork groups

Evaluation methods

- Continuous evaluation
- End-of-course evaluation

Evaluation tools and percentages of final mark

- Written test, open questions 70%
- Exercises, cases or problem sets 10%
- Teamwork assignments (problem solving, Project design) 10%
- Portfolio 10%

ORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

General aspects of evaluation (continuous and final) applicable to all types of evaluation:

1. Attendance and completion of practical content: Attendance is mandatory, and all practical content must be independently developed and passed, since it allows achieving 90% of the LO of the subject. Thus, non-attendance cannot exceed the limits settled in the regulations and must be duly justified. (UPV/EHU student regulations, November 2016 resolution, (https://www.ehu.eus/documents/3026289/3106907/Reglamento_Alumnado_UPV_EHU.pdf))
2. Plagiarism: No copy or imitation of the work done by third parties may be presented as one's own. Students must know how to cite and use references. The suspicion of plagiarism may cause turning down the work and, consequently, failing the subject.
3. Evaluation system of preference and minimum requirements for passing the subject: Whenever possible, a continuous evaluation will be carried out. In order to pass the subject, the theoretical and practical contents must be passed independently.
4. Final evaluation (requirements): If a student refuses the continuous evaluation and requests a single final test, he/she must confirm his/her attendance in advance (at least 3 weeks before the test). If failing to do so, or not showing up the day of the exam will automatically result in failing the subject in both the ordinary and the extraordinary call.

Evaluation with 100% face-to-face teaching.

-Continuous evaluation. The evaluation will consist of:

1. Theoretical test: (70%) (the evaluation criteria are explained in detail in the Student's Guide)

1.1. Written exam: 7 short questions

1.2. Resolution of a simulated clinical case, similar to those seen throughout the Seminars, establishing a diagnosis (initial, differential and final), a periodontal prognosis (individual and general) and a staged integral treatment plan, based on scientific evidence.

In order to pass the subject, a minimum of 5 points over 10 must be obtained in this final individual exam. Also, the student must pass the short questions part (achieving a minimum of 3,5 points) and the clinical case (achieving a minimum of 1,5 points) independently.

2. Continuous evaluation of the practical content: (30% of the final mark, including the assessment of competences in oral and written communication)((the evaluation criteria are explained in detail in the Student's Guide).

2.1. Participation and resolution of the clinical cases in the Seminars (10%)

2.2. Attendance to clinical practices, showing an active participation. Checklist: Direct observation in the Clinic (10%).

2.3. Individual portfolio: Including the Practice Notebook with the resolution of the clinical cases from the Seminars, the clinical practices and a final report of a clinical case treated by the student or a simulated clinical case, properly



documented and justified (10%).

-Final evaluation. Students who request so, may choose a final test, with a theoretical and a practical part, as follows:

1. Theoretical content: (70%)

A theoretical exam, similar to that described in the continuous evaluation, including short questions and the resolution of a clinical case. The requirements to pass this part are the same as in the continuous evaluation.

2. Practical content: (30%)

2.1. Resolution of a clinical case, to evaluate the Seminars (10%)

2.2. A complete periodontal exam (periodontal chart and radiographic periodontal series) (15%)

2.3. Practical exam of the instrumental used in the clinical practices (15%)

2.4. Completion of a part of the non-surgical periodontal therapy (50%)

2.5. Writing of a final report of the clinical case, taking into account the clinical history and describing the diagnosis, prognosis and the treatment provided to the patient, using a proper and technical language (10%)

In order to pass the subject, both theoretical and practical contents must be independently passed, with a minimum of 5 points over 10 in the written test and 7 over 10 in the practical test.

If, for epidemiological reasons, a face-to-face evaluation would NOT be possible, a final assessment will be made according to such conditions.

-Evaluation of semi-face-to-face education derived from the aforementioned epidemiological situation:

Continuous evaluation of all the face-to-face and the telematic teaching activities, considering the general evaluation criteria.

Evaluation of the theoretical content (70%): a written or oral test will be conducted via eGela.

Evaluation of the practical content (30%): Through the individual digital portfolio and the continuous evaluation via checklist of the face-to-face clinical practices and seminars.

In order to pass the subject, a minimum of 5 points over 10 must be obtained in the written test, in order to add this result to the rest of the evaluation.

EXTRAORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

As in the ordinary call, the same percentages are maintained in this call: 70% theoretical content and 30% practical content.

Since attendance to seminars and clinical practices is compulsory, if the evaluation is positive, this result will be kept even for students who have failed the ordinary call, so that they will only have to do a written theoretical test of short questions and resolution of a clinical case.

The criteria mentioned in the ordinary call are also maintained regarding a possible epidemiological emergency.

Final evaluation:

All students who request it, according to the UPV/EHU student regulations (<https://www.ehu.eus/es/web/graduak/normativa/evaluacion-del-alumnado-en-las-titulaciones-oficiales-de-grado>) may choose a final evaluation, which will consist of a written final test and a practical test, in the same way as in the regular call.

To refuse both ordinary and extraordinary calls, it will be enough not attending the exam.

MANDATORY MATERIALS

- Clinical pyjamas and cap
- Clinical material specified by the Dental Clinic Service
- Practice Notebook
- Electronic devices with internet connection (tablet, laptop, smartphone,...)
- Colored pens (blue, red, green, green and black)

BIBLIOGRAPHY

Basic bibliography

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- Aguirre-Zorzano L.A., Estefanía-Fresco R., Fernández-Jiménez A., García-De-La-Fuente AM. "Tratamiento periodontal no-quirúrgico". EHU.OCW 2018; <https://ocw.ehu.eus/course/view.php?id=470>
- Aguirre Zorzano LA, Estefanía-Fresco R, Fernández-Jiménez A, García-De-la-Fuente AM. "Enfermedades periodontales y periimplantarias: nuevas claves diagnósticas". EHU.OCW 2022; <https://ocw.ehu.eus/course/view.php?id=585>
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- García de la Fuente, Ana María, Estefanía Fresco, Ruth, Fernández Jiménez, Aitziber, Aguirre Zorzano, Luis Antonio. (2023). University Manual: "Guía práctica de periodoncia". ISBN: 978-84-1319-549-0 (digital). Link: <https://web-argitalpena.adm.ehu.es/listaproductos.asp?IdProducts=UMEPD235490>
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- Zuhr O. & Hürzeler M. (2012). Plastic-Esthetic Periodontal and Implant Surgery. A microsurgical approach. Quintessence Publishing

Material docente en formato video (EHUTB):

- Aguirre-Zorzano LA, Estefanía-Fresco R, Fernández-Jiménez A, García-De-La-Fuente A M.(2018). Higiene interdental. <https://ehutb.ehu.eus/video/5af05e17f82b2b1b738b4994>
- Aguirre-Zorzano LA, Estefanía-Fresco R, Fernández-Jiménez A, García-De-La-Fuente A M.(2018). Técnica de Bass modificada. <https://ehutb.ehu.eus/video/5af004aef82b2bcd718b49a6>
- Aguirre-Zorzano LA, Estefanía-Fresco R, Fernández-Jiménez A, García-De-La-Fuente A M.(2018). Técnica de Stillman modificada. <https://ehutb.ehu.eus/video/5af05c4bf82b2b1b738b4991>
- Aguirre-Zorzano LA, Estefanía-Fresco R, Fernández-Jiménez A, García-De-La-Fuente A M. (2018). Control de placa bacteriana. <https://ehutb.ehu.eus/video/5af0606ff82b2b296c8b462e>
- Aguirre-Zorzano LA, Estefanía-Fresco R, Fernández-Jiménez A, García-De-La-Fuente A M. (2018). Instrumental para realizar el tratamiento periodontal no quirúrgico. <https://ehutb.ehu.eus/video/5af06304f82b2b316c8b463e>
- Aguirre-Zorzano LA, Estefanía-Fresco R, Fernández-Jiménez A, García-De-La-Fuente A M. (2018). Raspado y alisado radicular (RAR) realizado por un operador zurdo. <https://ehutb.ehu.eus/video/5af06945f82b2b2f6c8b464a>
- Aguirre-Zorzano LA, Estefanía-Fresco R, Fernández-Jiménez A, García-De-La-Fuente A M. (2018). Raspado y alisado radicular (RAR) realizado por un operador diestro. <https://ehutb.ehu.eus/video/5af062ebf82b2bc8718b49f4>
- Aguirre-Zorzano LA, Estefanía-Fresco R, Fernández-Jimenez A, García-De-La-Fuente A M.(2018). Implantes dentales: carga inmediata y provisionalización. Link: <https://ehutb.ehu.eus/video/5abd2beef82b2b14768b4a28>
- Aguirre-Zorzano LA, Estefanía-Fresco R, Fernández-Jimenez A, García-De-La-Fuente A M.(2018).Implantes dentales: implantes dentales e injerto de tejido conectivo. Link: <https://ehutb.ehu.eus/video/5abba8f1f82b2b4c768b4994>
- Aguirre-Zorzano LA, Estefanía-Fresco R, Fernández-Jimenez A, García-De-La-Fuente A M.(2018). Terapia quirúrgica: elevación de seno maxilar e implantes dentales en la misma sesión". Link: <https://ehutb.ehu.eus/video/5abd263ef82b2b15768b4a1c>
- Fernández-Jimenez A, Estefanía-Fresco R, García-De-La-Fuente A M., Aguirre-Zorzano LA (2021). Técnica VISTA modificada (m-VISTA) en el tratamiento de recesiones gingivales múltiples clases III de Miller/RT2. Link: <https://ehutb.ehu.eus/video/61dbfb981e3fec1af033a844>
- Fernández-Jimenez A, Estefanía-Fresco R, García-De-La-Fuente A M., Aguirre-Zorzano LA. (2021). Técnica de colgajo de avance coronal (CAF) en el tratamiento de las recesiones gingivales múltiples Clase III de Miller/RT2. Link: <https://ehutb.ehu.eus/video/61dbff581e3fec1af033a862>

Detailed bibliography

Scientific journals (in English):

- Periodontology 2000 -Journal Clinical of Periodontology -Clinical Oral Implant Research -Journal of Periodontology -International Journal of Periodontics and Restorative Dentistry -Journal of Periodontal Research …

Databases:

- PubMed; <https://www.ncbi.nlm.nih.gov/pubmed/>
- ISI Web of Knowlegde; <https://www.rekursoscientificos.fecyt.es/>
- Scopus; <https://www.rekursoscientificos.fecyt.es/>
- Cochrane Library; <https://www.cochranelibrary.com/>

Journals

- Scientific journals (in Spanish):
- Periodoncia Clínica (Replaces the magazine “Periodoncia y Osteointegración”);
http://www.sepa.es/web_update/periodoncia-clinica-presentacion/
 - Periodoncia y Osteointegración: http://www.sepa.es/web_update/po-home/

Web sites of interest

- Sociedad Española de Periodoncia (SEPA): <https://www.sepa.es/>
- European Federation of Periodontology (EFP): <https://www.efp.org/>
- American Academy of Periodontics (AAP): <https://www.perio.org/>

OBSERVATIONS

COURSE GUIDE

2024/25

Faculty327 - Faculty of Medicine and Nursing

Cycle.

DegreeGODONT30 - Bachelor`s Degree in Dentistry

YearSecond year

COURSE

27240 - Oral Medicine & Pathology I

Credits, ECTS:6

COURSE DESCRIPTION

The subject of Oral Pathology Medicine I aims to provide knowledge on General Pathology, Pathological Anatomy specific to the oral and maxillofacial area and Semiology and Propaedeutics of oral and maxillofacial diseases. This subject includes fundamental aspects for the knowledge of the pathogenesis and diagnosis of the main oral and maxillofacial diseases. This subject is taught entirely by the Department of Stomatology of the UPV/EHU.

COMPETENCIES/LEARNING RESULTS FOR THE SUBJECT

- Learning outcomes:
1. Acquire and develop the fundamental knowledge of the morphology and pathophysiology of general diseases and of the oral and maxillofacial area in order to be able to apply it to their diagnosis.
 2. Acquire and develop the fundamental knowledge of the propaedeutics and semiology of oral medicine in order to be able to apply it to the diagnosis of the main diseases of the oral and maxillofacial area.
 3. Use the knowledge acquired to resolve clinical cases in a coherent manner and to make a differential diagnosis and a final diagnosis.
 4. Work with scientific information from basic knowledge of oral pathology and medicine, and adopt a favourable attitude towards their learning.

Theoretical and Practical Contents

- ORAL PATHOLOGY PART
- Block 1. General Pathological Anatomy
 - M1. Cell damage and death. Mechanisms and morphology.
 - M2. Inflammatory response. Types and characteristics. Haemodynamic alterations. 1h
 - M3. Immunopathology.
 - M4. Infectious diseases.
 - M5. Regeneration, repair and fibrosis.
 - M6. Genetically based diseases.
 - M7. Neoplastic pathology. Carcinogenesis.
 - PA: Oral immunological diseases.
 - PA: Oral infectious diseases.
 - OCP. Neoplastic pathology of the oral mucosa and soft parts.
 - OP: ORAL CANCER. Oral cancer.
 - PA. Non odontogenic pathology of the jaws.
 - S. General Pathological Anatomy.
- Block 2. Oral and Maxillofacial Pathological Anatomy.
- M8. Non-neoplastic pathology of the oral mucosa.
 - M9. Dental and periodontal pathology. Cariogenic and periodontal disease.
 - M10. Pathology of the maxillary bones. Cysts and tumours.
 - M11. Salivary gland pathology.
 - PCL. Microscopic practice 1: Reactive lesions of the oral mucosa.
 - PCL. Microscopic practice 2: Neoplastic lesions of the oral mucosa.
 - PCL. Microscopic Practical 3: Lesions of the maxillary bones and salivary glands.
 - salivary glands.
 - S1. Special Pathological Anatomy.
- ORAL MEDICINE PART
- M1. Medical history.
 - M2. Clinical examination of the oral cavity.
 - M3. Clinical examination of the head and neck.
 - M4. Complementary examinations: laboratory tests, microbiology.
 - M5. Complementary examinations: biopsy.
 - M6. Complementary examinations: radiology.
 - M7. Other complementary explorations.
 - M8. Elementary lesions of the oral cavity.
 - M9. Signs and symptoms in oral medicine.
 - M10. Semiology of salivary glands.

M11. Oral and maxillofacial radiological semiology.
PA. How to take a Clinical History in Oral Medicine.
PA. White lesions of the oral mucosa.
PA. Red and pigmented lesions of the oral mucosa.
PA. Vesicular-ampullary lesions of the oral mucosa.
AP. Ulcerated lesions of the oral mucosa.
AP. Radiolucent lesions of the maxillary bones.
PA. Radiopaque lesions of the maxillary bones.
PA. Radiolucent lesions of the maxillary bones.
PA. Oral and maxillofacial (soft parts) clinicopathological correlation.
PA. Oral and Maxillofacial (hard parts) clinicopathological correlation.
PCL. Clinical Practice 1: History and Clinical Examination in Oral Medicine.
PCL. Clinical Practice 2: History and Clinical Examination in Oral Medicine.
PCL. Clinical Practice 3: History and Clinical Examination in Oral Medicine.
PCL. Clinical Practice 4: History and Clinical Examination in Oral Medicine.
PCL. Clinical Practice 5: History and Clinical Examination in Oral Medicine.
S. Oral Medicine.

TEACHING METHODS

Theoretical lectures
Classroom practice
Seminars
Clinical Practice

TYPES OF TEACHING

Types of teaching	M	S	GA	GL	GO	GCL	TA	TI	GCA
Hours of face-to-face teaching	22	3	17			29			
Horas de Actividad No Presencial del Alumno/a	45	6	13			15			

Legend:

M: Lecture-based

GL: Applied laboratory-based groups

TA: Workshop

S: Seminar

GO: Applied computer-based groups

TI: Industrial workshop

GA: Applied classroom-based groups

GCL: Applied clinical-based groups

GCA: Applied fieldwork groups

Evaluation methods

- End-of-course evaluation

Evaluation tools and percentages of final mark

- Written test, open questions 35%
- Multiple choice test 35%
- Exercises, cases or problem sets 30%

ORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

The general evaluation of the course is continuous, with evaluation of the theoretical contents by means of an individual written test and of the theoretical content by means of an individual written test and of the practical content by means of an practical content by means of a continuous assessment of the competences acquired in the clinical clinical practicals, classroom practicals and seminars.
The individual written test will account for 70% of the total mark for the subject.
It will consist of:
- Written exam on all the contents with multiple-choice questions and short questions, including clinical cases. short questions, including clinical cases. This exam will have 2 parts: A) Part of Pathological Anatomy and B) Part of Oral Medicine.
In order to pass the course, students must obtain at least a grade of 5 in the written exam a grade of 5.
The continuous assessment of the clinical practicals, classroom practicals and clinical seminars will constitute the rest of the course.
clinical seminars will make up the rest of the final mark with the remaining 30%.
Attendance to the practical contents of the course is compulsory.
Students who so request may opt to take a single final exam, which will be both theoretical and theoretical and practical, with the completion of as many exams as necessary to assess all the learning required in the whole of this discipline.
In order to determine whether students have acquired the basic practical competences, a minimum mark of 7 out of 10 will be required.
a minimum grade of 7.0 and a minimum attendance of 75% will be required.



*Failure to carry out the compulsory activities or non-attendance must be duly justified in accordance with the be properly justified in accordance with the regulations in force at the UPV/EHU.

*If teaching circumstances change, the indications proposed by the UPV/EHU will be followed.

If teaching circumstances change, the indications proposed by the UPV/EHU will be followed.

EXTRAORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

The general evaluation of the course is continuous, with evaluation of the theoretical contents by means of an individual written test and of the

theoretical contents by means of an individual written test and of the practical contents by means of an practical content by means of a continuous assessment of the competences acquired in the clinical clinical practicals, classroom practicals and seminars.

The individual written test will account for 70% of the total mark for the subject.

It will consist of:

- Written exam on the totality of the contents with multiple-choice questions and short questions, including clinical cases. short questions, including clinical cases.

In order to pass the course, a grade of 4.5 must be obtained in the written exam.

a mark of 4.5.

The continuous assessment of the clinical practicals, classroom practicals and clinical seminars will constitute the rest of the course.

clinical seminars will make up the rest of the final mark with the remaining 30%.

Attendance to the practical contents of the course is compulsory.

Students who so request may opt to take a single final exam, which will be both theoretical and theoretical and practical, with the completion of as many exams as necessary to assess all the learning required in the whole of this discipline.

In order to determine whether students have acquired the basic practical competences, a minimum mark of 7 out of 10 will be required.

A minimum grade of 7.0 and a minimum attendance of 75% will be required.

Failure to carry out the compulsory activities or non-attendance must be justified in accordance with the be properly justified in accordance with current UPV/EHU regulations.

*If the teaching circumstances change, the indications proposed by the UPV/EHU will be followed. proposed by the UPV/EHU.

MANDATORY MATERIALS

Course notebook

Pathological Anatomy Materials

Clinical materials of the Dental Clinic Service of the UPV/EHU

BIBLIOGRAPHY

Basic bibliography

- Bagán JV, Ceballos A, Bermejo A, Aguirre JM, Peñarrocha M. Medicina Oral. Barcelona: Masson, 1995.
- Bagán JV, Scully C. Medicina y Patología Oral. Valencia: Medicina Oral SL, 2006.
- Bascones A. Medicina Bucal. Madrid: Avances, 2004.
- Bermejo A. Medicina Bucal. Madrid: Síntesis, 1998.
- Fauci AS et al. Harrison. Principios de Medicina Interna. Madrid: McGraw-Hill, 2002.
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Detailed bibliography

- Fauci AS et al. Harrison. Principios de Medicina Interna. Madrid: McGraw-Hill, 2012.
- Regezi, Sciubba J. Patología Bucal. Barcelona, Editorial McGraw-Hill, 3ª edición, 2000.
- Giglio MJ, Nicolosi LN. Semiología en la práctica de la Odontología. Santiago de Chile, McGraw-Hill Interamericana, 2000.

Journals

- Journal of Oral Pathology and Medicine
- Histopathology
- Applied Immunohistochemistry & Molecular Morphology
- Medicina Oral Patologia Oral Cirugía Bucal
- Oral Oncology
- Oral Diseases

Web sites of interest

www.iaop.com
www.aipmb.com
www.aaom.com
www.eaom.com
www.semo.es
www.sobep.com
www.seap.es
www.bsom.org.uk
www.oralpath.com

OBSERVATIONS

*If the teaching circumstances change during the course, the indications proposed by the UPV/EHU will be followed.