Universidad del País Vasco Euskal Herriko Unibertsitatea

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

https://www.ehu.eus/es/web/medikuntza-erizaintza-fakultatea/erasmus-incoming-students
Contact: medicina.internacional@ehu.eus

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 2024to January 2025
2nd : January 2025 to May 2025

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

Universidad del País Vasco Euskal Herriko Unibertsitatea

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.

Universidad del País Vasco — Euskal Herriko Unibertsitatea

COURSE GUIDE 2024/25

Faculty 327 - Faculty of Medicine and Nursing **Cycle** .

Degree GODONT30 - Bachelor`s Degree in Dentistry **Year** .

COURSE

27246 - Implantology **Credits, ECTS:** 6

COURSE DESCRIPTION

Implantology (UNESCO code 329900) is a subject belonging to the m06 optional module taught during the second quarter of year 5 in the Dentistry Master Degree. This subject is worth 6 ECTS and is divided into: teaching, in and out of class modalities as summarized in the table.
This subject aims for the student to become competent in: establishing a diagnosis, prognosis and execution of a correct therapeutic plan in cases of partially or totally edentulous via dental implants. To establish diagnosis and treatment plan, a student must be capable of taking and interpreting X-rays and other imaging procedures relevant to dentistry. The student must also be skilled in determining and identifying the patient’s aesthetic requirements and the possibilities of satisfying his/her curiosity. The specific subject skills are detailed in the ‘contents description’ section of M06 optional module.
Optional subject that deals with different aspects related to oral implantology: preparation of bone and soft tissue bases, installation of dental implants, implant-supported prostheses and their maintenance. There are theoretical and practical contents about patients.

Group Leader for the Subject: Santamaria Arrieta, Gorka
Telephone: 946012922
Email: Gorka.santamaria@ehu.eus

FACULTY
Alberto Anta (Associate Professor)
Itziar Arteagoitia (Associate Professor)
Gorka Santamaría (Associate Professor)

COMPETENCIES/LEARNING RESULTS FOR THE SUBJECT

Specific Implantology skills

Skills
IP1 Acquire and develop basic implantology and osseointegration knowledge for their application in the diagnosis and treatment of edentulous cases where these techniques can be applied.
IP2 Use said knowledge to coherently resolve clinical cases.
IP3
Draft the clinical history and examine tissues.
IP4
Perform or request complementary tests (X-ray, Scan, and Laboratory.)
IP5 Issue a case diagnosis.
IP6 Establish a treatment plan.
IP7 Analyse, discuss, summarise and express scientific information corresponding to implantology.
IP8 Team work in co-operative implantology tasks, i.e. Help with assistance tasks, discuss diagnoses and co-operate with treatments.
IP9 Show a favourable attitude towards self-learning in implantology, being active and participative in resolving problems and continuous updating.

Theoretical and Practical Contents

Subject syllabus
The syllabus is divided into 6 blocks:
1. Osseointegration, implant design and its implications.
2. Diagnosis and therapeutic planning.
3. Totally edentulous.
4. Partially edentulous.
5. Increased bone availability.
6. Implant complications, results and maintenance.

Each block is subdivided into the following topics:
a) Osseointegration, implant design and its implications.
Topic 1: Bone healing and osseointegration.

Topic 2: Implant designs and surfaces.
b) Diagnosis and therapeutic planning.
Topic 3: Clinical history, examination and diagnosis via imaging.
Topic 4: Treatment plan.
c) Totally edentulous.
Topic 5: Surgical aspects.
Topic 6: Restorative aspects and options.
d) Partially edentulous.
Topic 7: Surgical aspects.
Topic 8: Prosthetic aspects.
e) Increased bone availability.
Topic 9: Guided bone regeneration.
Topic 10: Monocortical bone grafts.
Topic 11: Elevation of maxillary sinus floor and alveolar distraction.
f) Implant complications, results and maintenance.
Topic 12: Failures and complications.
Topic 13: Peri-implant infections.
Topic 14: Implant survival and success rate.
Topic 15: Maintenance in implant therapy.

TEACHING METHODS

TOPIC AREA CHOSEN FOR: MASTERCLASSES, SEMINARS & CLINICAL PRACTICE
The IMPLANTOLOGY syllabus can be subdivided into 2 large blocks:
I/ Partially edentulous refers to treatment via prosthetic implant in patients lacking only one or a few teeth.
II/ Totally edentulous refers to treatment via prosthetic implant in edentulous patients.
Teaching will be different in each case.
I/ Partially edentulous. In the second quarter of year 5 in the Dentistry Degree, when the optional subject Implantology is first taught, there are only 4 months left to complete degree studies; and students have already acquired vast theoretical knowledge on surgery and prostheses, so they will be skilled in performing rehabilitations via removable partial/complete and permanent prostheses. They know the basic principles of occlusion and have studied the associated pathology. Furthermore, they have developed clinical and surgical skills during the last 3 years performing multidiscipline treatments at the University of the Basque Country UPV/EHU Dental Clinic. All the foregoing, enables students under strict supervision and after training through the implantology subject to rehabilitate straightforward cases of patients missing single teeth or partially edentulous via implants at the Dental Clinical. 84 out of the 150 hours of the subject would be used for this, i.e. 56% of the entire subject and 40% of the topics tackled. The topics tackled are:
TOPIC AREA CHOSEN FOR PBL APPLICATION.
JUSTIFICATION
II/ Totally edentulous. There are situations where rehabilitation with prosthetic implant is highly complex requiring specific training in advanced diagnostic, surgical and prosthodontic techniques. For this reason the study of these complex scenarios is best via an active methodology like PBL.
To correctly tackle these complex situations, students must: [1] have exhaustive critical knowledge of different implant surfaces and designs; [2]understand the importance of planning; [3]be able to handle new imaging analysis and prosthetic design technologies; and ⁴know bone availability increase techniques. Therefore, they will attend 7 hours of masterclasses, 3 hours of seminars and 18 hours of class practice. Thus 44% of the total hours for the subject will be imparted via PBL methodology, tackling 60% of the syllabus:
a) Osseointegration, implant design and its implications.
Topic 1: Bone healing and osseointegration.
Topic 2: Implant designs and surfaces.
b) Diagnosis and therapeutic planning (for totally edentulous).
Topic 3: Clinical history, imaging diagnosis and examination.
Topic 4: Treatment plan.
c) Totally edentulous.
Topic 5: Surgical aspects.
Topic 6: Restorative aspects and options.
e) Bone availability increase (for totally edentulous).
Topic 9: Guided bone regeneration.
Topic 10: Monocortical bone grafts.
Topic 11: Elevation of maxillary sinus floor and alveolar distraction.
f) Implant complications, results and maintenance (for totally edentulous).
Topic 12: Failures and complications.
Topic 13: Peri-implant infections.
Topic 14: Implant survival and success rate.
Topic 15: Implant therapy maintenance.

TYPES OF TEACHING

Types of teaching	M	S	GA	GL	GO	GCL	TA	TI	GCA
Hours of face-to-face teaching	17	6	18			30			
Horas de Actividad No Presencial del Alumno/a	35	17	12			15			

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

- Exercises, cases or problem sets 50%
- Teamwork assignments (problem solving, Project design) 50%

ORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

One honorary registration will be granted for every 20 students or fraction according to UPV/EHU regulations, and where appropriate an exam may be called for this purpose.

EVALUATION OF THE SYLLABUS TAUGHT with problem-based learning (APB). (50%)
- Individual tests (10%): 5 individual questions (short questions and a resolution of a problem or scenario) that will be self-corrected and evaluated among peers.
- Individual final test of minimum knowledge (15%): short question questionnaire, relationship questions, in a drawing, a definition or a single word, as the case may be.
- Oral presentations (25%). Evaluation of individual or group presentations.

EVALUATION OF THE REST OF THE REST OF THE AGENDA (50%)
- Individual final test of minimum knowledge (20%).
- Oral presentations (10%).
- Attitude and participation in clinical practice (10%).
- Clinical practice notebook (10%).

- In exceptional situations, such as the Covid-19 pandemic, in which there cannot be a joint written test, or a student does not attend it, an oral exam will be carried out together with the continuous evaluation that may have been carried out.

EXTRAORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

Same criteria as in the ordinary call.

MANDATORY MATERIALS

BIBLIOGRAPHY

Basic bibliography

- Lindhe J. Clinical Periodontology and Implant Dentistry. 5th edition, ed. Blackwell Munksgaard, 2008
- Norton M.: Dental Implants: Astra Tech System. Ed Marban Madrid 1998.
- Spanish Society of Periodontology and Osseointegration. SEPA Manual of Periodontics and Implant Therapeutics: Fundamentals and practical guide. Panamericana Medical Ed, Madrid, 2005.
- Bert L. Complications and failures in osseointegrated implants. Salvat Publishing. Barcelona. 1994.
- International Team of Implantology. The SAC classification in implant dentistry. Ed ITI. Basel. 2009
- Spanish Society of Periodontology. SEPA Manual of Implant Therapeutics in SEPA Manual of Periodontics and Implant Therapeutics. VOLUME II. Interamerican Ed. Barcelona. 2005
- Lindhe J. Applied Implantology in Clinical Periodontics and Applied Implantology. Ed Panamericana 2009
- Santamaría J, Barbier L. Oral Surgery. Practical Guide. Publications Service of the University of the Basque Country/Euskal Herriko Unibersitatea. Leioa. 2003.
- Peñarrocha M. Oral Implantology. Ed Ars Medica. 2005

Detailed bibliography

-Bagheri, S.C., Khan, H.A. and Stevens, M.R. (eds.) (2020) Complex dental implant complications. Cham: Springer.
-Peñarrocha Diago, M., Covani, U. and Cuadrado, L. (eds.) (2019) Atlas of immediate dental implant loading. Cham: Springer.
Misch, C.E. (2015) Dental implant prosthetics. 2 edition. St. Louis, Missouri: Elsevier Mosby.
-Jane Manakil (2019) Periodontology and Dental Implantology, DOAB Directory of Open Access Books. InTech.
-Budihardja, A.S. and Mücke, T. (eds.) (2019) Bone management in dental implantology. Cham, Switzerland: Springer.
-Galante, J.M. and Rubio, N.A. (eds.) (2021) Digital dental implantology : from treatment planning to guided surgery. Cham, Switzerland: Springer.
-Gabric, D. and Vuletic, M. (eds.) (2022) Current concepts in dental implantology : from science to clinical research. London.
-Emami, E. and Feine, J.S. (eds.) (2018) Mandibular implant prostheses : guidelines for edentulous geriatric populations. Cham, Switzerland: Palgrave Macmillan.

Journals

Web sites of interest

OBSERVATIONS

Universidad del País Vasco
Euskal Herriko Unibertsitatea

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

Contact:
Ruth Estefanía Fresco
ruth.estefania@ehu.eus
Office: 1.E.24

Aitziber Fernández Jiménez
aitziber.fernandez@ehu.eus
Office: 1.E.24

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:

1. 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)

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% 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

-Aguirre-Zorzano LA, Estefanía-Fresco R, García-De-La-Fuente AM. (2017). "Diagnóstico periodontal: conceptos básicos". EHU.OCW 2017; https://ocw.ehu.eus/course/view.php?id=433
-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 Ortíz G. (2022). Tissues: Critical Issues in Periodontal and Implant-related Plastic and Reconstructive Surgery. Quintessence Publishing Company, Incorporated, 2022. ISBN: 0867159634
-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
-Genco et al. (1993). Periodoncia Contemporánea. Interamericana-McGraw-Hill. México
-Laskaris & Scully (2012). Periodontal manifestations of local and systemic diseases: colour atlas and text. Springer Science & Business Media. https://link.springer.com/book/10.1007/978-3-642-55596-1
-Levi et al. (2015). Non-Surgical Control of Periodontal Diseases: A Comprehensive Handbook. Springer
-Palmer & Floid (2021). Periodontology. Springer
-Pattison, G. L. (1985). Instrumentación Periodontal. 1ed. Buenos Aires, Panamericana
-Rateitschack KH, Rateitschack Pluss EM, Wolf HF (1991). Atlas de Periodoncia. 2ª Ed Salvat. Barcelona
-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 aproach. 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
-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

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

Universidad del País Vasco — Euskal Herriko Unibertsitatea

COURSE GUIDE 2024/25

Faculty 327 - Faculty of Medicine and Nursing **Cycle** .

Degree GODONT30 - Bachelor`s Degree in Dentistry **Year** Fourth 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

Contact:

Ruth Estefanía Fresco
ruth.estefania@ehu.eus
Office: 1.E.24

Aitziber Fernández Jiménez
aitziber.fernandez@ehu.eus
Office: 1.E.24

Ana María García De La Fuente
anamaria.garcia@ehu.eus

Office: 0.E.13

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, diferential 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

-Aguirre-Zorzano LA, Estefanía-Fresco R, García-De-La-Fuente AM. (2017). "Diagnóstico periodontal: conceptos básicos". EHU.OCW 2017; https://ocw.ehu.eus/course/view.php?id=433
-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 Ortíz G. (2022). Tissues: Critical Issues in Periodontal and Implant-related Plastic and Reconstructive Surgery. Quintessence Publishing Company, Incorporated, 2022. ISBN: 0867159634
-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
-Genco et al. (1993). Periodoncia Contemporánea. Interamericana-McGraw-Hill. México
-Laskaris & Scully (2012). Periodontal manifestations of local and systemic diseases: colour atlas and text. Springer Science & Business Media. https://link.springer.com/book/10.1007/978-3-642-55596-1
-Levi et al. (2015). Non-Surgical Control of Periodontal Diseases: A Comprehensive Handbook. Springer
-Palmer & Floid (2021). Periodontology. Springer
-Pattison, G. L. (1985). Instrumentación Periodontal. 1ed. Buenos Aires, Panamericana
-Rateitschack KH, Rateitschack Pluss EM, Wolf HF (1991). Atlas de Periodoncia. 2ª Ed Salvat. Barcelona
-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 aproach. 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.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): https://www.sepa.es/
-European Federation of Periodontology (EFP): https://www.efp.org/
-American Academy of Periodontics (AAP): https://www.perio.org/

OBSERVATIONS

Universidad del País Vasco Euskal Herriko Unibertsitatea

COURSE GUIDE 2024/25

Faculty 327 - Faculty of Medicine and Nursing **Cycle** .

Degree GODONT30 - Bachelor`s Degree in Dentistry **Year** .

COURSE

28170 - Regenerative Surgical Therapy in Periodontics **Credits, ECTS:** 6

COURSE DESCRIPTION

Regenerative Surgical Therapy in Periodontics is an elective subject and it is taught in the fourth and fifth years of the Degree in Dentistry. It consists of 6 ECTS credits, with a total dedication of 150 hours that are divided into face-to-face classroom hours (71 hours) and non-classroom hours (79 hours).
In Europe, data for total edentulism in the population between 65 and 74 years, ranges from 17% to 36%. Although in Spain this percentage is one of the lowest of Europe, the tooth loss begins early; in fact, only 91% of people aged from 35 to 44 years have more than 20 teeth in their mouths. Tooth loss has important consequences for patients, such as oral and systemic alterations: it reduces masticatory function, alters esthetics, causes discomfort and alters phonation and swallowing, significantly reducing the quality of life of patients.
One of the main causes of tooth loss is periodontal disease. Periodontitis is an inflammatory disease of infectious origin and multifactorial etiology that affects the supporting tissues of the tooth.
Through the subjects of the Degree of Dentistry (Periodontics I and Periodontics II), undergraduate students will acquire the basic knowledge about the supporting structures surrounding the teeth and their substitutes (dental implants), as well as how to establish a diagnosis, a prognosis of the different periodontal and peri-implant pathologies, how to treat them with non-surgical and surgical approaches…
The principles of Guided Tissue Regeneration (GTR) were established in the 1980s and, since then, regenerative procedures around implants and teeth have changed the individual prognosis of teeth affected by advanced periodontal disease and the overall prognosis of the patient's entire dentition.
The objective of this subject is that students acquire the competence and knowledge about the healing of the bone crest after tooth extraction, the prognosis of teeth with / without regenerative treatment, the biological principles of GTR and the main surgical techniques used in both guided tissue regeneration and guided bone regeneration, associated with implantology. Based on this knowledge, the directed, cooperative and autonomous learning of the students will enable them to make decisions aimed at solving simulated clinical cases where regenerative therapies are applied.
Within the subject of Periodontics II, students acquire basic knowledge of periodontal surgical treatment, but it is not possible to develop these regenerative surgical procedures in a comprehensive manner.
Therefore, an elective subject called "REGENERATIVE SURGICAL THERAPY IN PERIODONTICS" will complement the basic compulsory subjects (Periodontics I and Periodontics II), providing students with knowledge to acquire basic skills in regenerative techniques and thus introduce them to a deeper knowledge of periodontal surgical techniques, especially the regenerative ones.
Given its elective nature, it should serve as a support for other subjects that include clinical practices that require knowledge of the clinical and radiographic characteristics of periodontal and peri-implant tissues, both healthy and diseased, such as Periodontics II, Periodontics I, Integrated Adul Practice I and II, Dental Prosthesis III, Dental Pathology and Therapeutics II, and Implantology, 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.

COMPETENCIES/LEARNING RESULTS FOR THE SUBJECT

The competences of the subject are shown in the student guide.

The following are the LO that students will demonstrate at the end of the course, correlated with their respective competences.
LO related to the competences 1 and 4:
LO1. Students will be able to identify key elements of the healing of the bone crest after a tooth extraction.
LO2. Students will be able to know the biological principles of the periodontal regeneration, the periodontal plastic surgery and bone regeneration applied to Implantology.
LO3. Students will be able to know and identify the different surgical techniques used in periodontal regenerative therapy and periodontal plastic surgery, as well as the risk factors associated with them.
LO related to the competences 2, 3 and 4:
LO4. Students will be able to correctly perform the clinical history, as well as the exam of the periodontal and peri-implant tissues.
LO5. 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 periodontal and peri-implant diseases
LO6. Students will be able to correctly identify and request the necessary complementary tests (radiological, serological and microbiological) for establishing the diagnosis and prognosis of periodontal and peri-implant diseases.

LO7. 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 periodontal and peri-implant diseases, as well as a comprehensive treatment plan. Also, students will be able to identify the lesions susceptible to be treated with periodontal regeneration, identifying the risk factors associated with these lesions that will condition the prognosis of the tooth, with or without regenerative treatment, and its impact on the overall prognosis.
LO related to the competence 5:
LO8. Students will be able to correctly perform on patients the periodontal treatment according to their therapeutic needs.
LO related to the competence 6:
LO 9. Students will be able to collaborate on clinical tasks (periodontal chart and radiographic series), 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 the competence 7:
LO10. 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 (periodontal regenerative procedures), identifying which surgical treatment is the most indicated and the risk factors that might condition the success of such procedure.
LO related to the competence 8:
LO 11. Students will be able to use an appropriate academic terminology and a writing style adapted to the different situations (patients, other professional dentists…).
LO 12. Students will be able to use an appropriate terminology and an oral language tailored to the different scenarios that can arise between the patient and the professional dentist.

Theoretical and Practical Contents

Theorical Lessons:
Lesson 1.- The edentulous ridge: from the alveolar process to total edentulism. Intraalveolar and extraalveolar changes after tooth extraction. (2 hours)
Lesson 2.- Healing of the wound after periodontal surgery. Healing of the soft and hard tissues surrounding dental implants. (2 hours)
Lesson 3.- Prognostic factors related to the patient, the defect and the tooth in periodontal regeneration. (1 hour)
Lesson 4.- The surgical approach and the importance of the suture in periodontal healing focusing on regeneration. (1 hour)
Lesson 5.- Principles and biologic development of the guided tissue regeneration (GTR). Indications considering the scientific evidence. (2 hours)
Lesson 6.- Membranes and biomaterials in GTR. (1 hour)
Lesson 7.- Biologically active periodontal regeneration: a different approach, Where is the limit? (1 hour)
Lesson 8.- Clinical strategies for periodontal regeneration. Decision making. (2 hours)
Lesson 9.- Mucogingival therapy: Periodontal Plastic Surgery (4 hours)
Lesson 10.- Ridge augmentation procedures associated to implant installation: (2 hours)
o Biologic principles of Guided Bone Regeneration (GBR)
o Membranes and graft biomaterials
o Alveolar preservation
o Ridge aumentation in thickness and height
Lesson 11.-Treatment of the atrophic posterior maxilla (2 hours)
Practical contents:
1.- Clinical seminars: 15 hours of clinical seminars, in which simulated clinical cases will be solved through active methodologies (case-problem), in small groups and with the whole group.
2.-Laboratory Practices (LP) (Hands-on in a simulation model)
· LP1.- Preparation of the surgical field. Microsurgical instruments (1 hour)
· LP2.- Suturing techniques in periodontics: (2 hours).Presentation of different suturing techniques
· LP3.- GTR/ amelogenin techniques on angular defects around teeth (typodont). (3 hours)
· LP4.- Sinus lift. (2 hours)
· LP5.- GBR in bone defects surrounding dental implants. (2 hours)
· LP6.- Mucogingival surgery techniques in a simulation model (typodont /animal model). (2 hours)
3.- Clinical practices (24 hours)
Students will attend as observers to the surgical procedures performed in the Dental Clinic Service of the UPV/EHU by students of the MFP in Periodontics and MFP in Osseointegration and Oral Rehabilitation.

TEACHING METHODS

LO1, 2, 3, 4 and 5: The acquisition of LO1, LO2 and LO3 will be achieved through master classes to the entire group, where the conceptual contents of the subject will be explicity explained. All the concepts of this subject will be explicitly explained, and the fundamental concepts will be treated interactively. To complete these LO1, 2 and 3, the students will study them them through self-learning (LO10), through basic and deepening bibliography, completing activities in the virtual classroom (eGela)) and consolidating knowledge through personalized tutoring.

LO 4,5,6,7,9,10,11 and 12: They will be developed through seminars and LP. Seminars will be held in double sessions using a methodology based on clinical cases and case problems and students will be divided into small cooperative groups.

LO 4,5,6,7,9,10,11 and 12: They will be developed through seminars and LP. They will be developed in simulated models in small groups supervised by the tutoring teacher.

LO 4, 5, 6, 7, 8, 9,10, 11 and 12: They will be developed through clinical practices at the Dental Service of the UPV/EHU in small groups supervised by the tutoring teacher.

Virtual classrooms (eGela) 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	20	15		12		24			
Horas de Actividad No Presencial del Alumno/a	30	22,5		18		36			

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

- Exercises, cases or problem sets 40%
- Teamwork assignments (problem solving, Project design) 20%
- Oral presentation of assigned tasks, Reading¿ 30%
- 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.-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.
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.-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 with 100% face-to-face teaching:
The evaluation will consist of:
1.- Continuous evaluation. 60% of the final result.
Continuous evaluation of the student’s participation and resolution of the clinical cases presented in the seminars, as well as attendance to the laboratory and clinical practices, with an active participation.
2.- Individual final evaluation. 40% of the final result.
It will consist of a final oral test or lecture on the part of the course not evaluated in the continuous evaluation, on theoretical aspects or clinical cases developed in the lectures and seminars, including the presentation of papers or readings.

Final evaluation:

The evaluation will consist of:
1.-Continuous evaluation: 30% of the final result. Continuous evaluation of the student’s participation and

resolution of the clinical cases presented in the seminars, as well as attendance to the laboratory and clinical practices, with an active participation.

2.- Individual final exam: 70% of the final result. It will consist of a final oral test on the part of the course not evaluated in the continuous evaluation, by means of a oral exam about the theoretical aspects or clinical cases developed in the lectures and seminars, including the presentation of papers or readings. In order to pass the subject, a minimum of 7 points over 10 must be obtained in the oral test, in order to add this result to the rest of the evaluation.

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.
All sessions and assignments proposed by the faculty as a substitute for classroom teaching will be mandatory and will be part of the evaluation of the course.

EXTRAORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

Since attendance to seminars and clinical practices is mandatory, those students who, despite having attended them and having a positive evaluation, fail the course in the ordinary exams, will keep the positive evaluation of the practical contents and will only have to take a single theoretical test.
The criteria mentioned in the ordinary call are also maintained regarding the epidemiological situation derived from the current pandemic.

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

MANDATORY MATERIALS

Clinical pyjamas and clinical cap.
Specific material to be established by the Dental Clinic Service.
Device with Internet connection: laptop/tablet/mobile phone
Educational materials

BIBLIOGRAPHY

Basic bibliography

Basic bibliography

o Aguirre-Zorzano L.A., Estefanía-Fresco R., García-De-La-Fuente AM (2017). Diagnóstico periodontal: conceptos básicos. EHU-OCW.https://ocw.ehu.eus/course/view.php?id=433;
o Aguirre-Zorzano, L.A., Estefanía-Fresco R., Fernández Jiménez A., García-De la Fuente A.M.(2022) Enfermedad periodontal y periimplantaria: nuevas claves diagnósticas [2022/10][cas]. ISSN 2255-2316 https://ocw.ehu.eus/course/view.php?id=585
o Amine et al. (2019). Periodontal root coverage. An Evidence-Based Guide to Prognosis and Treatment.Springer. https://link.springer.com/book/10.1007/978-3-030-20091-6
o Berglundh et al.(2021) Lindhe´s Clinical Periodontology and Implant Dentistry. 7th edition, ed. Wiley Blackwell, Munksgaard.
o Chambrone, L (2015). Evidence-Based Periodontal and Peri-Implant Plastic Surgery: A Clinical. Roadmap from Function to Aesthetics" Editorial Springer. http://link.springer.com/book/10.1007/978-3-319-13975-3.
o Chambrone, L., Ortiz, G. A., & Valenzuela, S. G. (2022). Tissues: Critical Issues in Periodontal and Implant-Related Plastic and Reconstructive Surgery. Quintessence Publishing Company, Incorporated.
o Nares(2020). Advances in Periodontal Surgery. Springer. https://link.springer.com/book/10.1007/978-3-030-12310-9
o Rateitschack KH, Rateitschack Pluss EM, Wolf HF. Atlas de Periodoncia.2ª Ed Salvat. Barcelona 1991.
o Younes et al. (2015). Sinus Grafting Techniques.A Step-by-Step Guide.https://link.springer.com/book/10.1007/978-3-319-11448-4
o Zuhr O. & Hürzeler M.(2012).Plastic-Esthetic Periodontal and Implant Surgery. A microsurgical aproach. Quintessence Publishing.

Specific material from scientific journals of the specialty:

o Supplement to Journal of Periodontology: (2015). Proceedings of the 2014 AAP Regeneration Workshop – Enhancing Periodontal Health Through Regenerative Approaches.
o Periodontology 2000: volume 68, 73,77

o Aguirre-Zorzano, L. A., García-De La Fuente, A. M., Estefanía-Fresco, R., & Marichalar-Mendía, X. (2017).

Complications of harvesting a connective tissue graft from the palate. A retrospective study and description of a new technique. Journal of clinical and experimental dentistry, 9(12), e1439–e1445. https://doi.org/10.4317/jced.54337
o Bjarni et al.(2014):" Sinus floor elevation utilizing the transalveolar approach" Periodontology 2000, Vol. 66, 2014, 59–71. | DOI: 10.1111/prd.12043
o Fernández-Jiménez, A., García-De-La-Fuente, A. M., Estefanía-Fresco, R., Marichalar-Mendia, X., Aguirre-Urizar, J. M., & Aguirre-Zorzano, L. A. (2021). Complete root coverage in the treatment of Miller class III or RT2 gingival recessions: a systematic review and meta-analysis. BMC oral health, 21(1), 145. https://doi.org/10.1186/s12903-021-01494-3
o Fernández-Jiménez, A., Estefanía-Fresco, R., García-De-La-Fuente, A. M., Marichalar-Mendia, X., Aguirre-Urizar, J. M., & Aguirre-Zorzano, L. A. (2023). Comparative study of the modified VISTA technique (m-VISTA) versus the coronally advanced flap (CAF) in the treatment of multiple Miller class III/RT2 recessions: a randomized clinical trial. Clinical oral investigations, 27(2), 505–517. https://doi.org/10.1007/s00784-022-04746-w
o Fernández-Jiménez, A., García-De-La-Fuente, A. M., Marichalar-Mendia, X., Aguirre-Zorzano, L. A., & Estefanía-Fresco, R. (2023). Treatment of deep single RT2 and RT3 antero-mandibular gingival recessions with a combination of surgical techniques: A case series study. Journal of esthetic and restorative dentistry : official publication of the American Academy of Esthetic Dentistry ... [et al.], 10.1111/jerd.13120.
o Sculean et al. (2008). Regeneration of periodontal tissues: combinations of barrier membranes and grafting materials–biological foundation and preclinical evidence: a systematic review. Journal of clinical periodontology, 35, 106-116.
o Susin & Wikesjö (2013). Regenerative periodontal therapy: 30 years of lessons learned and unlearned". Periodontol 2000., Jun;62(1):232-42. doi: 10.1111/prd.12003. http://onlinelibrary.wiley.com/doi/10.1111/prd.12003/epdf

Learning material in video (EHUTB) in Spanish:
o Aguirre-Zorzano LA, Estefanía-Fresco R, Fernández-Jiménez A, García-De-La-Fuente A M.(2018).Implantes dentales: carga inmediata y provisionalización. Aguirre-Zorzano LA, Estefanía-Fresco R, Fernández-Jiménez A, García-De-La-Fuente A M. (2018).Implantes dentales: implantes dentales e injerto de tejido conectivo.
o Aguirre-Zorzano LA, Estefanía-Fresco R, Fernández-Jiménez A, García-De-La-Fuente A M.(2018)Terapia quirúrgica: elevación de seno maxilar e implantes dentales en la misma sesión".
o Fernández-Jiménez 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

Detailed bibliography

Scientific journals (in English)
o Clinical Oral Implant Research
o Journal Clinical of Periodontology
o Journal of Periodontology
...
Database:
o PubMed
o Isi Web Of Knowlegde
o Scopus

Journals

-Periodoncia Clínica (“Periodoncia y Osteointegración” sustituye a la revista Periodoncia y Osteointegración) http://www.sepa.es/web_update/periodoncia-clinica-presentacion/
-Periodoncia y Osteointegracion 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 Periodontology (AAP): https://www.perio.org/

OBSERVATIONS

KRONOGRAMA

Proposatutako irakasgaiak eduki teorikoak eta praktikoak ditu (mintegiak, laborategiko praktikak, praktika klinikoak), eta horiek modu sekuentziatuan emango dira, ikasleek aurreikusitako gaitasunak eskura ditzaten.

Universidad del País Vasco Euskal Herriko Unibertsitatea

COURSE GUIDE 2024/25

Faculty 327 - Faculty of Medicine and Nursing **Cycle** .

Degree GODONT30 - Bachelor`s Degree in Dentistry **Year** Fourth year

COURSE

27228 - Orthodontics I **Credits, ECTS:** 6

COURSE DESCRIPTION

The subject of Orthodontics 1 is taught in the fourth year of the Degree in Dentistry. It consists of a theoretical and practical syllabus that allows the student to make a diagnosis in orthodontics differentiating the different malocclusions according to their severity and therapeutic possibilities.

COMPETENCIES/LEARNING RESULTS FOR THE SUBJECT

-This course deals with the diagnosis of dental and dentofacial malocclusion problems and also with the planning and knowledge of the different orthodontic techniques. Module competences: the diagnosis of dental, skeletal malocclusions and other anatomical or functional alterations. The knowledge of the possible orthodontic, orthopedic or surgical corrections is a competence. To be competent in the realization of diagnostic plaster models, analysis, articulator set-up and interocclusal records. Knowledge of making a cephalometric and esthetic diagnosis of the patient.

-To be competent in the elaboration of a diagnosis and treatment plan of the patient who requires treatment to solve his malocclusion.

-To be competent in the prescription of custom-made medical devices "orthodontic appliances and dento-facial orthopedics". To know the laboratory procedures for the fabrication of all types of prostheses and orthodontic appliances. To be competent in planning and performing interceptive orthodontic techniques. Know how to perform stabilization procedures after orthodontic treatment. Be familiar with more complex contemporary orthodontic treatments. Be familiar with the indications and therapeutic options for orthognathic surgery.

Theoretical and Practical Contents

Theoretical topics, seminars, laboratory practices.

THEORETICAL COURSE 22 hours:

1. Orthodontics: concept and objectives. Origin and historical evolution of Orthodontics.

2. Nature and morphology of normocclusion. Concept and meaning. Relationships in the three planes. Keys of Andrews. Terminology to describe the malposition of individual teeth.

3. Concepts of general growth and development, places and types of growth. Rotation of the jaws during growth. Dimensional changes of arches during eruption.

4. Classification and characterization of malocclusion. Angle's classification. Lisher classification. Other classifications. Limitations of classification systems. Ackerman Proffit classification.

5. Generalities of the etiopathogenesis of malocclusions. Hereditary and congenital causes of malocclusions. Acquired causes of malocclusions Prevalence. Local factors. Alteration of the number of teeth. Size and shape anomalies.

6. Clinical history and examination in orthodontics. Anamnesis. Medical, dental and orthodontic history. Intraoral and extraoral examination. Examination of teeth and gums. Analysis of dental relations.

7. Analysis of study models I. Intermaxillary analysis: sagittal, vertical and transversal. Midline deviations. Measurements of tooth size. Methodology. Bolton's index.

8. Analysis of study models II. Individual arch examination. Arch form. Symmetry. Identification of each tooth. Abnormalities of position, shape and tooth size.

9. Radiographic anatomy. Panoramic radiography. Lateral skull radiography. Wrist and cervical spine radiography. Occlusal, frontal and scan radiography.

10. Photography in orthodontics. Photographic series in orthodontics.

11. Cephalometry. Objectives of cephalometry. Technical aspects. Taking and preparation of cephalometry. Cephalometric methods. Lateral cephalometric anatomy. Soft tissues of the profile. Hard tissues. Orientation, reference

and superimposition planes.

12. Steiner cephalometry.

13. Ricketts cephalometric.

14. Biology of tooth movement. Tissue reaction to forces.

15. Biomechanics applied to Orthodontics I. Basic concepts. Forces and vectors. Control of tooth movement. Force systems. Types of controlled movements.

16. Biomechanics applied to orthodontics I. Static equilibrium. Active elements. Orthodontic metallurgy. Passive elements. Types. First, second and third order torques.

17. Comprehensive diagnosis. Orthodontic treatment planning.

18. Facial morphological analysis.

19. Class I syndrome.

20. Class II syndrome. Division 1.

21. Class II Syndrome. Division 2.

22. Class III syndrome.

23. Vertical syndromes.

24. Transverse syndromes.

SEMINARS: 10 hours.
Performance of the main cephalometric analyses. Cephalometric diagnosis in orthodontics.

LABORATORY PRACTICES: 36 hours.
Diagnostic plaster models in Orthodontics. Analysis of study models in Orthodontics.

TEACHING METHODS

Theoretical topics are given with lectures, and seminars with active methodologies based on the clinical case model.

The practices of plaster models will be carried out in the laboratories.

New technologies will be used as complementary tools.

Virtual classrooms will be used as a complement for the seminar practices.

TYPES OF TEACHING

Types of teaching	M	S	GA	GL	GO	GCL	TA	TI	GCA
Hours of face-to-face teaching	22	10		36					
Horas de Actividad No Presencial del Alumno/a	38	20		24					

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 60%

- Exercises, cases or problem sets 30%

ORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

Continuous Assessment System

- Grading tools and percentages:
- Written test to be developed (%): 60%.
- Seminars (exercises, cases or problems) (%): 20% o Seminars (exercises, cases or problems) (%):
  o Performance of laboratory practices: 10% (Continuous evaluation)

- Portfolio : 10(%)

EXTRAORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

The extraordinary evaluation will follow the same evaluation criteria as those used in the ordinary evaluation.

MANDATORY MATERIALS

-For laboratory practices, students must wear a lab coat.

-For the seminars students will require: caliper, sheets of acetate or onion paper, square and bevel, protractor, indelible markers. Electronic devices (table, pc).

BIBLIOGRAPHY

Basic bibliography

Basic bibliography:

-CANUT, J.A.: Clinical and therapeutic orthodontics 2nd ed. Editorial Masson. 2000.
-BRAVO , L A. Theory and practice of orthodontics. Editorial Lisermed. 2023.
-BRAVO , L A. Manual de ortodoncia. Editorial Síntesis. 2003.
-ENLOW, D.H.: Maxillofacial Growth. 3rd ed. Editorial Interamericana.Buenos Aires. 1992.
-GRABER, T.M.: Orthodontics. General principles and techniques 2nd ed. Editorial Médica Panamericana, 1997.
-MAYORAL, G, MAYORAL; J.: Orthodontics. Fundamental principles and practice 4th ed. Ed. Médica Panamericana. 1992.
-MCNAMARA, J.A.: Orthodontic and orthopedic treatment in the mixed dentition. 2nd ed. 1995.
-MOYERS, R.E.: Manual de ortodoncia 4ª ed. Ed. Médica Panamericana Buenos Aires. 1992.
-PROFFIT, W.R.: Contemporary Orthodontics 6th ed. Ed. Elsevier. 2019.

Detailed bibliography

-GREGORET J. Orthodontic treatment with straight arch. 2nd ed.Editorial Amolca. 2023.
-ARNETT G. Facial and dental planning for orthodontists and oral surgeons. Ed Elsevier. 2005.

Journals

Journals:
-American Journal of Orthodontics and Dentofacial Orthopedics.
-Angle Orthodontics.

Web sites of interest

OBSERVATIONS

This course requires the understanding of profound diagnostic, biomechanical and craniofacial growth concepts that require a deep involvement from the beginning and a proactive attitude to reach such understanding.

Universidad del País Vasco Euskal Herriko Unibertsitatea

COURSE GUIDE 2024/25

Faculty 327 - Faculty of Medicine and Nursing **Cycle** .

Degree GMEDIC30 - Bachelor`s Degree in Medicine **Year** Third year

COURSE

27276 - Clinical Microbiology & Infection **Credits, ECTS:** 6

COURSE DESCRIPTION

The subject "Clinical Microbiology and Infection" sets out to give an overall vision of infectious diseases from the etiological point of view. The etiology and the pathogenicity mechanisms of the main infectious processes, the correct steps and clinical samples to make a laboratory diagnosis, and an analysis of the microbiological factors that determine antibacterial treatments. The main aim is to acquire the necessary knowledge to establish a strategy and a diagnostic opinion on microbial diseases, indicate a safe and efficient course of treatment and propose the most suitable preventive measures.

COMPETENCIES/LEARNING RESULTS FOR THE SUBJECT

COMPETENCIAS DE LA TITULACION.
- Comprender y reconocer la estructura y función normal del cuerpo humano, a nivel molecular, celular, tisular, orgánico y de sistemas, en las distintas etapas de la vida y en los dos sexos.
- Reconocer las bases de la conducta humana normal y sus alteraciones.
- Comprender y reconocer los efectos, mecanismos y manifestaciones de la enfermedad sobre la estructura y función del cuerpo humano.
- Comprender y reconocer los agentes causantes y factores de riesgo que determinan los estados de salud y el desarrollo de la enfermedad.
- Comprender los fundamentos de acción, indicaciones y eficacia de las intervenciones terapéuticas, basándose en la evidencia científica disponible.
- Tener capacidad para elaborar un juicio diagnóstico inicial y establecer una estrategia diagnóstica razonada.
- Establecer el diagnóstico, pronóstico y tratamiento, aplicando los principios basados en la mejor información posible y en condiciones de seguridad clínica.
- la terapéutica más adecuada de los procesos agudos y crónicos más prevalentes, así como de los enfermos en fase terminal.
- Plantear y proponer las medidas preventivas adecuadas a cada situación clínica
- Adquirir experiencia clínica adecuada en instituciones hospitalarias, centros de salud u otras instituciones sanitarias, bajo supervisión, así como conocimientos básicos de gestión clínica centrada en el paciente y utilización adecuada de pruebas, medicamentos y demás recursos del sistema sanitario
- Redactar historias clínicas y otros registros médicos de forma comprensible a terceros.
- Comunicarse de modo efectivo y claro, tanto de forma oral como escrita, con los pacientes, los familiares, los medios de comunicación y otros profesionales.
- Establecer una buena comunicación interpersonal que capacite para dirigirse con eficiencia y empatía a los pacientes, a los familiares, medios de comunicación y otros profesionales.

COMPETENCIAS DEL MÓDULO QUE SE DESARROLLAN EN ESTA ASIGNATURA (Copia exacta de las competencias de la Orden ECI/332/2008)
- Conocer los principales agentes infecciosos y sus mecanismos de acción.
- Reconocer, diagnosticar y orientar el manejo de las principales patologías infecciosas en los distintos órganos y aparatos.
- Enfermedades de transmisión sexual.
- Reconocer, diagnosticar y orientar el manejo de las principales patologías del sistema inmune.

OBJETIVOS FORMATIVOS (DE APRENDIZAJE) DE LA ASIGNATURA

1. Relacionar los mecanismos de patogenicidad de los principales agentes infecciosos con los cuadros infecciosos.
2. Analizar los cuadros infecciosos desde el punto de vista etiológico.
3. Saber establecer la estrategia adecuada para el diagnóstico microbiológico e interpretar los resultados.
4. Comprender los mecanismos de defensa eficaz contra los principales agentes infecciosos.
5. Comprender los mecanismos inmunológicos asociados a las principales patologías relacionadas con el funcionamiento lesivo del sistema inmune.
6. Orientar el diagnóstico de laboratorio y analizar el tratamiento actual de las principales patologías relacionadas con el funcionamiento lesivo del sistema inmune.
7. Analizar los factores que condicionan el tratamiento antimicrobiano y saber indicar una terapéutica antimicrobiana adecuada.
8. Conocer las medidas aplicables para prevenir los procesos infecciosos en nuestro medio.

Theoretical and Practical Contents

Master classes

I. INFECTION AND IMMUNE RESPONSE
Infection and infectious disease
Immune response to an infection
Vaccination and anti-infectious immunotherapy
II. DIAGNOSIS AND TREATMENT OF INFECTIONS
Microbiological basis for a diagnosis of infections
Criteria for the rational use of antibiotics
III. ETIOPATHOGENICS, DIAGNOSIS AND ANTIMICROBIAL TREATMENT OF INFECTIONS
Respiratory infections
Urinary tract infections
Cutaneous, subcutaneous, osteoarticular and muscular infections
Central nervous system infections
Sexually transmitted infections
Obstetric, congenital and perinatal infections
Bacteremia
Infections in an immunocompromised patient. Infections related to healthcare
Digestive tract infections
Zoonosis
IV. NEW INFECTIOUS CHALLENGES
The major infectious threats. Emerging infections
Infections in a globalized world. HIV, Plasmodium and Mycobacterium
Travelers' infections
Old and new challenges of resistance to antibiotics

• Seminars
• First seminar: Emerging/re-emerging pathogens (1) Dengue virus → dengue, (2) Lassa virus → Lassa fever, (3) Crimean Congo virus→ Crimean - Congo hemorrhagic fever, (4) Monkeypox virus → mpox, (5) Zika virus → Zika virus infection and (6) Rickettsia coronii → boutonneuse fever (and other rickettsial infections)
• Second seminar: Clinical Laboratory work. Clinical Microbiology Laboratory simulation

• Classroom practices
Clinical cases: Respiratory infections. Urinary tract infections. Sexually transmitted infections. Cutaneous, subcutaneous and osteoarticular infections. Infection during pregnancy and neonatal infections. Digestive tract infections. Central nervous system infections.

•Laboratory practical work
Indication and interpretation of complementary diagnosis studies on infections. Taking and processing of clinical samples for microbiological study. Evaluation, monitoring and follow-up of antibiotic therapy. Immunodiagnostics

TEACHING METHODS

The methodology will include Master Classes (28 classroom hours) in the form of an exhibition class; 12 hours of Classroom Practices where learning based on the resolution of problems and clinical cases, 20 hours of Laboratory Practices; and Seminars (6 classroom hours): Session 1, (3 hours) with completion and presentation of work on a selection of several emerging and reemerging pathogens and the diseases they cause and Session 2, (3 hours) of Practical Class in Clinical Laboratory where the student will come into contact with both the bases of the laboratory microbiological diagnosis and the reality of a clinical microbiology service.

TYPES OF TEACHING

Types of teaching	M	S	GA	GL	GO	GCL	TA	TI	GCA
Hours of face-to-face teaching	28	6	12	20					
Horas de Actividad No Presencial del Alumno/a	50	12	6	10					

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

- Multiple choice test 75%
- Exercises, cases or problem sets 15%
- Teamwork assignments (problem solving, Project design) 10%

ORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

1. Theoretical assessment: exam of 60 multiple-choice with one correct answer. Each correct answer = 1 point, and each wrong answer means that 0.3 points will be subtracted. Unanswered questions will not be penalized. Of the 60 questions, 48 are related to the subject taught in lectures, and they may include notions worked on in practical laboratory sessions. Twelve questions will be about clinical problems worked on and solved in the practical classroom sessions. This exam must be passed to pass the subject as a whole. The marks of the other assessments will not be added if this part of the assessment is no passed.

2. Practical assessment: questions based on images or tests with an overall weight of 15 points. For each incorrect answer one point is subtracted. This mark will be added to the total grade (only if the test is passed). Attendance is compulsory, and this percentage will not be added to the final mark if the student's absence is not sufficiently justified.

3. Furthermore, attendance, active participation, and the presentation and level of correctness of projects all contribute to the final mark. Practical classroom work accounts for 50% of this section and seminars 50% (Session 1, 40% and Session 2, 10%). Presentations (posters or oral) of both kinds of activity will be graded with a maximum 10 points to calculate the overall grade.

Attendance at all programmed activities is compulsory. A lack of active participation of non-compliance of rules will be penalized by subtracting 0.5 points per day of practical work. Failure to attend session 2 (Clinical Microbiology Laboratory simulation) will be penalized with the total value of that session.

If the student does not show up for assessments this will be considered as a withdrawal from the call and will appear as "Not presented".

Students may be assessed under the final assessment (exam) system, regardless of whether they have participated in the continuous assessment system or not. To do this, they should apply in writing to withdraw from continuous assessment within 9 weeks of the start of the term. In this case, they must a sit a multiple-choice exam (only one answer correct) and a practical exam.

EXTRAORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

The extraordinary call is governed by the same criteria as the ordinary call. Students can request that they keep the grade obtained in the practical assessment or take a new exam, while maintaining the score obtained in the rest of the activities with continuous assessment.
If the student does not show up for the evaluations, it will be considered that he renounces the call and will appear as "Not submitted"

MANDATORY MATERIALS

Lab coat for laboratory practices. Sheets with practical procedures.

BIBLIOGRAPHY

Basic bibliography

1. Murray PR, Rosenthal KS, Pfaller MA (Eds.). Medical Microbiology. 9ª Ed., Elsevier, 2020.
2. Prats G., Pumarola T., Mirelies B. Microbiología y Parasitología médicas. 2ª Edición. Madrid, Editorial Médica Panamericana, 2023.
3. Basaras Ibarzabal M, Umaran Sánchez A. Mikrobiologia medikoa. Bilbao, UPV/EHU, 2004.
4. Picazo JJ, Prieto J. Compendio de Microbiología médica. 2ª Edición. Barcelona, Elsevier, 2016.
5. Mensa J, Gatell JM, García-Sánchez JE, Letang E, López-Suñé E, Marco F. Guía de terapéutica antimicrobiana. Barcelona, Ed. Antares, 2024.

Detailed bibliography

1. Carroll KC, Pfaller MA. Warnock DW (Eds.). Manual of Clinical Microbiology, 13st Ed. Washington D.C., American Society for Microbiology, 2023.

2. Bennett JE, Dolin R, Blaser MJ (Eds.). Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases, 9th Edition. London, Churchill Livingstone-Elsevier, 2015.
3. Ausina V. Moreno S. (Ed.). Tratado SEIMC de enfermedades infecciosas y Microbiología clínica. Madrid, 2ª Edición. Editorial Panamericana, 2010.
4. Quindós G. Micología clínica. Elsevier, Barcelona, 2015.

Journals

1. Enfermedades Infecciosas y Microbiología Clínica
2. Revista Española de Quimioterapia
3. Revista Iberoamericana de Micología
4. Medicina Clínica

Web sites of interest

1. Enfermedades Infecciosas y Microbiología Clínica http://www.elsevier.es/es/revistas/enfermedades-infecciosas-microbiologia-clinica-28
2. Protocolos de la Sociedad Española de Enfermedades Infecciosas y Microbiología Clínica, http://www.seimc.org/protocolos/microbiologia
3. Plan Nacional Resistencia Antibióticos (PRAN): http://resistenciaantibioticos.es/es
4. Guía terapéutica antimicrobiana del SNS. https://resistenciaantibioticos.es/es/lineas-de-accion/control/guia-terapeutica-antimicrobiana-del-sns
5. ProAntibióticos. ProAntibióticos: https://proantibioticos.com/about/
6. Osakidetza / Osanet. http://www.osakidetza.euskadi.eus/r85-pkfarm02/es/conte
7. Organización Mundial de la Salud http://www.who.int/
8. European Centre for Disease Prevention and Control (ECDC) http://ecdc.europa.eu/en/Pages/home.aspx
9. Centers for Disease Control and Prevention (CDC) https://www.cdc.gov/

OBSERVATIONS

Universidad del País Vasco — Euskal Herriko Unibertsitatea

COURSE GUIDE 2024/25

Faculty 327 - Faculty of Medicine and Nursing **Cycle** .

Degree GMEDIC30 - Bachelor`s Degree in Medicine **Year** Third year

COURSE

27277 - Foundations of Medical Pharmacology **Credits, ECTS:** 6

COURSE DESCRIPTION

Basis of Medical Pharmacology is a core subject in the 3rd year of the Degree in Medicine. This subject belongs to Unit 04 "Diagnostic and Therapeutic Procedures". The main objective of this subject is that the students learn the following aspects:
a) Concepts and general mechanisms underlying drug action as well as its absorption, distribution, metabolism and excretion.
b) Pharmacological effects of main drugs and their therapeutic use in pathological processes, based on their mechanism of action and their pharmacokinetics. The contents are divided in the following blocks:
a. Autonomic nervous system pharmacology
b. Central nervous system pharmacology and pharmacological basis of anesthesia
c. Pharmacology of analgesic, anti-inflammatory e immunomodulatory drugs
d. Pharmacology of digestive, respiratory and cardiovascular systems
e. Hormone pharmacology
f. Antimicrobial, antiprotozoal, anthelmintic and anti-cancer pharmacology

COMPETENCIES/LEARNING RESULTS FOR THE SUBJECT

Approved by ANECA.

Theoretical and Practical Contents

Block I. General concepts and mechanisms involved in drug action and absorption, distribution, metabolism and excretion processes.
Topic 1. Introduction to Pharmacology
Topic 2. Absorption of drugs. Distribution of drugs in the body
Topic 3. Metabolism and drug excretion
Topic 4. Pharmacokinetic parameters
Topic 5. Pharmacodynamics I
Topic 6. Pharmacodynamics II
Topic 7. General mechanisms of adverse reactions to drugs
Block II. Pharmacology of the autonomic and peripheral nervous system
Topic 8. Autonomic nervous system. Adrenergic neurotransmission. Cholinergic neurotransmission
Topic 9. Adrenergic drugs. Centrally acting antiadrenergics
Topic 10. Antiadrenergic drugs
Topic 11. Cholinergic drugs. Muscarinic antagonists. Neuromuscular blockers

Block III. Pharmacology of the central nervous system and pharmacological bases of anesthesia
Topic 12. Opiate analgesics
Topic 13. Benzodiazepines. Other anxiolytics. Other sedative and hypnotics
Topic 14. Antidepressant drugs. Antimanic drugs
Topic 15. Antipsychotic drugs. Psychostimulants. Psychotomimetics
Topic 16. Drugs used at neurodegenerative disorders. Antiepileptic drugs. Antispastic drugs
Topic 17. General anesthetic drugs: inhalational and intravenous. Local anesthetics

Block IV. Analgesic, anti-inflammatory and immunomodulatory drugs.
Topic 18. Histamine and antihistamine drugs. Serotonin. Eicosanoids
Topic 19-20. Nonsteroidal anti-inflammatory drugs (NSAIDs). Other antirheumatics. Antigout agents
Topic 21. Steroidal anti-inflammatory drugs.
Topic 22. Immunosuppressive and immunostimulant drugs
Block V. Pharmacology of the digestive, respiratory and cardiovascular systems.
Topic 23-24. Pharmacology of the respiratory and digestive tract
Topic 25. Diuretics
Topic 26. Digitalics. Other inotropic drugs. Calcium antagonists
Topic 27. Pharmacology of the renin-angiotensin system
Topic 28. Nitrates and other vasodilator drugs. Antiarrhythmic drugs
Topic 29. Anticoagulants. Platelet antiaggregants. Pharmacology of fibrinolysis
Topic 30. Hypolipidemic drugs. Hematopoietic agents
Block VI. Pharmacology of antimicrobials, antiprotozoals, anthelmintics and anticancer drugs
Topic 31. Antiseptic and disinfectants. Sulfamides and cotrimoxazol. Quinolones. Other urinary antiseptics

Topic 32. Beta-lactam antibiotics
Topic 33. Aminoglycoside antibiotics. Polypeptide antibiotics. Tetracyclines
Topic 34. Macrolides. Other antibiotics. Antimycobacterial drugs
Topic 35. Antifungal drugs. Antiviral drugs
Topic 36. Antiprotozoal, antihelmintic and ectoparasiticide drugs
Topic 37. Antineoplastic drugs
Block VII. Pharmacology of hormones and metabolism
Topic 38. Hormones of the pituitary gland. Thyroxine and antithyroid drugs
Topic 39. Pharmacology of the adrenal cortex. Insulin and oral hypoglycemic drugs. Glucagon
Topic 40. Female and male sex hormones
Topic 41. Ossification pharmacology

4.2. Practical content
The practical content in the subject is spread over 10 practical sessions in the classroom, 2 computer practical session and 2 laboratory practical sessions and 1 seminar.

TEACHING METHODS

Master classes and practical sessions (10 practical sessions in the classroom, 2 computer practical session and 2 laboratory practical sessions and 1 seminar).

TYPES OF TEACHING

Types of teaching	M	S	GA	GL	GO	GCL	TA	TI	GCA
Hours of face-to-face teaching	33	2	20	5	4				
Horas de Actividad No Presencial del Alumno/a	62	8	10	4	2				

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

- Written test, open questions 54%
- Multiple choice test 21%
- Exercises, cases or problem sets 12%
- Teamwork assignments (problem solving, Project design) 13%

ORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

According to approved official calendar.

EXTRAORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

According to approved official calendar.

MANDATORY MATERIALS

BIBLIOGRAPHY

Basic bibliography

Rang HP, Dale MM, Ritter JM, Flower RJ, Henderson G. "Rang and Dale's Pharmacology" 9th ed. Elsevier.

Detailed bibliography

Brunton L, Chabner B, Knollman B (Eds). Goodman & Gilman´s "The Pharmacological Basis of Therapeutics", 13th ed. McGraw-Hill.

Journals

Drugs
Clinical Pharmacology and Therapeutics
Clinical Pharmacokinetic
British Journal Clinical Pharmacology

Web sites of interest

http://www.osakidetza.euskadi.eus/r85-ckpubl02/es/contenidos/informacion/publicaciones_informes_estudio/es_pub/publicaciones.html#farmacia

https://www.aemps.gob.es

http://www.ema.europa.eu/ema/

OBSERVATIONS

Ordinary call
The assessment system is mixed:
Written theoretical assessment
Instrument: final written exam is divided in 2 parts. Each one consists of: 5 questions with short answers and 30 multiple choice questions. Each of the 4 parts must be passed.
Assessment criteria: information provided, reasoning, ability to summarize and precision in the use of language.
Percentage of the final grade: 75 %

Practical assessment
Instrument: final practical work report (classroom and computer) and active participation in classroom practical work sessions. Students must attend and participate in a minimum of 80% of the practical sessions.
Assessment criteria: identification of the objectives proposed, information contained, ability to analyze and solve the issues presented correctly.
Percentage of the final grade: 25 %

Extraordinary call
The extraordinary call is governed by course regulation.

OBSERVATIONS
During the development of the exam, the use of books, notes, telephone, electronic devices or computers will not be allowed. If calculator is needed, students will be notified in advance.

Universidad del País Vasco Euskal Herriko Unibertsitatea

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

Universidad del País Vasco
Euskal Herriko Unibertsitatea

COURSE GUIDE 2024/25

Faculty 352 - Faculty of Medicine and Nursing **Cycle** .

Degree GENFER30 - Bachelor`s Degree in Nursing **Year** Second 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’ external experiential education period, according to established regulations for students’ 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’ educational training during their clinical pratice in collaboration with the university.

University Tutor (Teaching and Research Staff)
A lecturer from the university, who is responsible for students’ 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 learing 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

- Califiación 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

Universidad del País Vasco — Euskal Herriko Unibertsitatea

COURSE GUIDE 2024/25

Faculty 352 - Faculty of Medicine and Nursing **Cycle** .

Degree GENFER30 - Bachelor`s Degree in Nursing **Year** Third year

COURSE

27562 - Assessment of the Habits of Life of a Population **Credits, ECTS:** 4,5

COURSE DESCRIPTION

DESCRIPTION AND CONTEXTUALIZATION OF THE SUBJECT
Given the prevalence of chronic diseases in developed countries, the aim of this subject is to study in depth the risk factors of these diseases, learning to assess them, as well as their impact on the health of different population groups.

COMPETENCIES/LEARNING RESULTS FOR THE SUBJECT

COMPETENCIES / LEARNING OUTCOMES OF THE SUBJECT
General Competencies:148, 153
- GC 148: Promote healthy lifestyles, self-care, supporting the maintenance of preventive and therapeutic behaviours.
- GC 153: Establish evaluation mechanisms, considering scientific-technical and quality aspects.
Specific skills: 75, 77, 87
- SC 75: Know and assess the nutritional needs of healthy people and those with health problems throughout the life cycle, in order to promote and reinforce healthy eating habits.
- SC 77: Learn the pathophysiological processes and their manifestations and the risk factors that determine the states of health and disease in the different stages of the life cycle.
- SC 87: Identify the factors related to health and the problems of the environment, in order to attend to people in situations of health and illness as members of a community. Apply the necessary methods and procedures in their field to identify the most relevant health problems in a community.
Cross-cutting skills: Effective oral communication.
Learning Outcomes: To develop the necessary skills to detect and prevent unhealthy lifestyle habits in the population. Know the necessary tools to identify social habits. Properly apply the instruments available to correct the defects detected.

Theoretical and Practical Contents

THEORETICAL-PRACTICAL CONTENTS
UNIT 1. Methods for the assessment of physical activity and nutrition.
Unit 1.1. General introduction to methods of habits assessment.
Unit 1.2. Methods to assess physical activity.
Unit 1.3. Methods for assessing dietary habits.
UNIT 2. Effect of lifestyle habits on the health of the population to be studied.
Unit 2.1. Main causes of morbidity and mortality and risk factors for the most prevalent diseases (cardiovascular, oncological, mental illnesses, etc.).
Unit 2.2. Physical activity recommendations in different population groups.
Unit 2.3. Dietary recommendations in different population groups.
UNIT 3. Lifestyles of the population.
Unit 3.1. Physical activity habits in different population groups.
Unit 3.2. Eating habits in different population groups.

TEACHING METHODS

METHODOLOGY
1.- Seminar work and laboratory practicals: group work.
2.- Oral presentation of written work
3.- Examination
Assignments must be submitted on the date and in the format indicated by each teacher. In order to pass the course, it will be necessary to have passed 50% of each of the parts. Those who do not participate in the classes will be entitled to a final exam.

TYPES OF TEACHING

Types of teaching	M	S	GA	GL	GO	GCL	TA	TI	GCA
Hours of face-to-face teaching	38	4		3					
Horas de Actividad No Presencial del Alumno/a	57	6		4,5					

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

- Written test, open questions 70%
- Oral defence 10%
- Teamwork assignments (problem solving, Project design) 20%

ORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

ORDINARY ASSESSMENT SESSION: GUIDELINES AND OPTING OUT
Assessment System:
Skills and qualification (%).
1.- S. and LP work. SC: 75, 77, 87 (20%)
2.- Oral presentation of the written work. TC (10%)
3.- Examination. SC: 75, 77, 87 (70%)

EXTRAORDINARY EXAMINATION PERIOD: GUIDELINES AND OPTING OUT

EXTRAORDINARY EXAMS: ORIENTATIONS
The assessment of the subjects in the extraordinary exams will be carried out exclusively through the final assessment system. The final assessment test of the extraordinary exam will consist of the assessment tests that are necessary to evaluate and measure the defined learning outcomes, in a similar way to how they were assessed in the ordinary call. The passing grades obtained by students during the course may be maintained.

MANDATORY MATERIALS

COMPULSORY MATERIALS
Articles, methods and resources described in classes, seminars and classroom practice. Material will be available on the E-GELA platform.

BIBLIOGRAPHY

Basic bibliography

Caspersen C., Powerll K. & Christenson G. (1985). Physical activity, exercise, and physical fitness: Definitions and distinctions for health-related research. Pub Health Rep, 100, 126-131.
Ainsworth et al. (2000). Compendium of physical activities: an update of activity codes and MET intensities. Med Sci Sports Exercise 32, 498-516.
Livingstone MBE (2003). How active are we? Levels of routine physical activity in children and adults. Proc Nutr Soc 62, 681-701.
al. (1983). A method to assess energy expenditure in children and adults. Am J Clin Nutr 37, 461-467
López, J. & Fernández, A. (2008). Fisiología clínica del ejercicio. Editorial Médica Panamericana, Buenos Aires.
Marshall & Welk (2008). Definitions and measurement. En Smith A. & Biddle S. editores, Youth physical activity and sedentary behavior (pp. 3-29). Champaign Illinois: Human kinetics Publishers.
MEC/MSC Ministerio de Educación y Ciencia y Ministerio de Sanidad y Consumo (2006). Actividad física y salud en la Infancia y la Adolescencia. Ministerio de Educación y Ciencia y Ministerio de Sanidad y Consumo. Madrid.

Sarah M. Eickmeyer, Gail L. Gamble, Samman Shahpar, Kim D. Do (2012). The Role and Efficacy of Exercise in Persons With CancerPM R ;4:874-881.Sheri r. Colberg, ronald j. Sigal, bo fernhall, judith g. Regensteiner, bryan j. Blissmer, richard r. Rubin, lisa chasan-taber, ann l. Albright, barry braun (2010). Exercise and Type 2 Diabetes. The American College of Sports Medicine and the American Diabetes Association: joint position statement. Diabetes Care 33:e147–e167.

Warburton, D.E., Nicol, C.W. & Bredin, S.S. (2006), "Health benefits of physical activity: the evidence", CMAJ: Canadian Medical Association journal = journal de l'Association medicale canadienne, vol. 174, no. 6, pp. 801-809.
Gary O'Donovan , Anthony J. Blazevich , Colin Boreham , Ashley R. Cooper , Helen Crank , Ulf Ekelund , Kenneth R. Fox , Paul Gately , Billie Giles-Corti , Jason M. R. Gill , Mark Hamer , Ian McDermott , Marie Murphy , Nanette Mutrie , John J. Reilly , John M. Saxton & Emmanuel Stamatakis (2010): The ABC of Physical Activity for Health: A consensus statement from the British Association of Sport and Exercise Sciences, Journal of Sports Sciences, 28:6, 573-591. William Micheo,

Luis Baerga, Gerardo Miranda (2012). Basic Principles Regarding Strength, Flexibility, and Stability Exercises PM R;4:805-811.

González-Gross M, Ruiz JR, Moreno LA, Rufino-Rivas P, Garaulet M, Mesana MI, Gutiérrez A.(2003). The AVENA Group. Body composition and physical performance of Spanish adolescents: the AVENA pilot study. Acta Diabetol, 40: 299-301
Rikli, R.E. & Jones, J.C. (2001). Senior fitness test manual, Human Kinetics, Champaign, Illinois.
Tinetti ME, Williams TF, Mayewski R.(1986). Falls risk index for elderly patients base don Lumber of chronic disabilities. Am J Med. 80: 429-34

Detailed bibliography

BIBLIOGRAPHY FOR FURTHER READING
It will be provided in the presentation of the course.

Journals

It will be provided in the course presentation.

Web sites of interest

Internet-eko web-gune interesgarriak
www.patient.co.uk/health/Physical-Activity-For-Health.htm.

OBSERVATIONS

Universidad del País Vasco — Euskal Herriko Unibertsitatea

COURSE GUIDE 2024/25

Faculty 327 - Faculty of Medicine and Nursing **Cycle** .

Degree GODONT30 - Bachelor`s Degree in Dentistry **Year** Fourth 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.

BIBLIOGRAPHY

Basic bibliography

-Bagán JV. Medicina y Patología Bucal (2º Ed). Valencia, Medicina Oral S.L., 2021.
-El-Naggar, JR Chan, T Grand, Slootweg, JKC. WHO Classification of Head and Neck Tumors. (1º ed). Lyon, IARC Publications; 2017.
-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, Elservier, 2015.
-Odell, E. Cawson Fundamentos de Medicina y Patología Oral (9ª Ed.). Barcelona, Elservier, 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

Universidad del País Vasco
Euskal Herriko Unibertsitatea

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

Contact:
Ruth Estefanía Fresco
ruth.estefania@ehu.eus
Office: 1.E.24

Aitziber Fernández Jiménez
aitziber.fernandez@ehu.eus
Office: 1.E.24

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:

1. 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)

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% 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

-Aguirre-Zorzano LA, Estefanía-Fresco R, García-De-La-Fuente AM. (2017). "Diagnóstico periodontal: conceptos básicos". EHU.OCW 2017; https://ocw.ehu.eus/course/view.php?id=433
-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 Ortíz G. (2022). Tissues: Critical Issues in Periodontal and Implant-related Plastic and Reconstructive Surgery. Quintessence Publishing Company, Incorporated, 2022. ISBN: 0867159634
-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
-Genco et al. (1993). Periodoncia Contemporánea. Interamericana-McGraw-Hill. México
-Laskaris & Scully (2012). Periodontal manifestations of local and systemic diseases: colour atlas and text. Springer Science & Business Media. https://link.springer.com/book/10.1007/978-3-642-55596-1
-Levi et al. (2015). Non-Surgical Control of Periodontal Diseases: A Comprehensive Handbook. Springer
-Palmer & Floid (2021). Periodontology. Springer
-Pattison, G. L. (1985). Instrumentación Periodontal. 1ed. Buenos Aires, Panamericana
-Rateitschack KH, Rateitschack Pluss EM, Wolf HF (1991). Atlas de Periodoncia. 2ª Ed Salvat. Barcelona
-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 aproach. 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
-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

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

Universidad del País Vasco — Euskal Herriko Unibertsitatea

COURSE GUIDE 2024/25

Faculty 327 - Faculty of Medicine and Nursing **Cycle** .

Degree GODONT30 - Bachelor`s Degree in Dentistry **Year** Fourth 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

Contact:

Ruth Estefanía Fresco
ruth.estefania@ehu.eus
Office: 1.E.24

Aitziber Fernández Jiménez
aitziber.fernandez@ehu.eus
Office: 1.E.24

Ana María García De La Fuente
anamaria.garcia@ehu.eus

Office: 0.E.13

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, diferential 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

-Aguirre-Zorzano LA, Estefanía-Fresco R, García-De-La-Fuente AM. (2017). "Diagnóstico periodontal: conceptos básicos". EHU.OCW 2017; https://ocw.ehu.eus/course/view.php?id=433
-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 Ortíz G. (2022). Tissues: Critical Issues in Periodontal and Implant-related Plastic and Reconstructive Surgery. Quintessence Publishing Company, Incorporated, 2022. ISBN: 0867159634
-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
-Genco et al. (1993). Periodoncia Contemporánea. Interamericana-McGraw-Hill. México
-Laskaris & Scully (2012). Periodontal manifestations of local and systemic diseases: colour atlas and text. Springer Science & Business Media. https://link.springer.com/book/10.1007/978-3-642-55596-1
-Levi et al. (2015). Non-Surgical Control of Periodontal Diseases: A Comprehensive Handbook. Springer
-Palmer & Floid (2021). Periodontology. Springer
-Pattison, G. L. (1985). Instrumentación Periodontal. 1ed. Buenos Aires, Panamericana
-Rateitschack KH, Rateitschack Pluss EM, Wolf HF (1991). Atlas de Periodoncia. 2ª Ed Salvat. Barcelona
-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 aproach. 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.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): https://www.sepa.es/
-European Federation of Periodontology (EFP): https://www.efp.org/
-American Academy of Periodontics (AAP): https://www.perio.org/

OBSERVATIONS

Universidad del País Vasco — Euskal Herriko Unibertsitatea

COURSE GUIDE 2024/25

Faculty 327 - Faculty of Medicine and Nursing **Cycle** .

Degree GODONT30 - Bachelor`s Degree in Dentistry **Year** Second year

COURSE

27240 - Oral Medicine & Pathology I **Credits, ECTS:** 6

COURSE DESCRIPTION

The subjetc 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
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

- 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: Sintesis, 1998.
- Fauci AS et al. Harrison. Principios de Medicina Interna. Madrid: McGraw-Hill, 2002.
- Mitchell R.N, Abbas A.K, Fausto N, Kumar V. Compendio de Robbins & Cotran. Patología Estructural y Funcional. 7ª Ed. Barceloa, Elsevier, 2007.
-. 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.
.- Kumar V, Kotran RS, Robbins S. Robbins Patología Humana. 7ª Ed. Barcelona, Elsevier, 2007.

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.