# 1. BASIC INFORMATION

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|---|---|
| **Course** | Stomatological Prosthetics III |
| **Degree program** | Dentistry degree |
| **School** | Faculty of Biomedical and Health Sciences |
| **Year** | 4 |
| **ECTS** | 6 ECTS |
| **Credit type** | Mandatory |
| **Language(s)** | English |
| **Delivery mode** | On-site |
| **Semester** | First semester |
| **Academic year** | 2025-2026 |
| **Coordinating professor** | Ignacio Ortiz Collado |

# 2. PRESENTATION

This subject concerns the diagnosis and treatment of the partially edentulous patient with fixed partial dentures and any other kind of fixed dental prostheses. It describes the physiopathology of those patients, as well as the treatment techniques, procedures and the materials used for treatment.

# 3. LEARNING OUTCOMES

**Knowledge**

KN01 Know the essential elements of the dental profession, including ethical principles and legal responsibilities.

KN02 Understand the importance of these principles for the benefit of the patient, society and the profession, with special attention to professional secrecy.

KN06 Understand the importance of maintaining and using patient information records for further analysis, preserving the confidentiality of the data.

KN10 Understand and 4ecognize the science of biomaterials essential to dental practice, as well as the immediate management of potential allergies to them.

KN11 To be aware of general disease processes and their treatment, including infection, inflammation, immune system alterations, degeneration, neoplasia, metabolic alterations and genetic disorders.

KN14 Understand and 4ecognize the principles of ergonomics and safety at work (including cross-infection control, radiation protection, occupational and biological diseases).

KN17 Recognise the anatomy, pathophysiology and oral pathology of a simulated patient in a pre-clinical environment in order to carry out a diagnosis and rehabilitative or restorative treatment.

KN25 Know the clinical and laboratory diagnostic procedures and tests, know their reliability and diagnostic validity and be competent in the interpretation of their results.

KN27 To understand dental biomaterials: their handling, properties, indications, allergies, bio-compatibility, toxicity, waste disposal and environmental impact.

Subject-specific knowledge

- To associate conventional and digital workflows and materials used in fixed prostheses in order to be able to make a correct diagnosis and treatment plan.
- Identify the possible therapeutic options for each diagnosis in fixed prostheses.
- Describe the principles and materials for the production of retentive and non-retentive millings.
- Explain the different pre-prosthetic treatments.
- Identify the different treatments for the partially edentulous patient with a fixed partial denture.

**Skills**

SK05 Know the scientific method and have the critical capacity to evaluate established knowledge and new information. Be able to formulate hypotheses, collect and critically evaluate information to solve problems, following the scientific method.

SK16 Acquire pre-clinical experience under appropriate supervision in simulated environments.

SK17 Solve clinical cases in a simulated environment

SK18 Know and use basic equipment and instrumentation for dental practice.

Subject-specific skills
• Apply the fixed prosthetic treatment sequence in pre-clinical practice.

**Competences**

CP02 Recognise oral normality and pathology, as well as the evaluation of semiological data.

CP04 Manage, discriminate and select appropriate materials and instruments in dentistry.

CP15 Make diagnostic models, mount them and take inter-occlusal recordings.

CP16 Determine and identify the aesthetic requirements of the patient and the possibilities of satisfying their concerns.

CP44 Integrate analysis with critical thinking in a process of evaluating different ideas or professional possibilities and their potential for error, based on objective evidence and data leading to effective and valid decision- making.

## 4. CONTENT

• Concept, indications and contraindications for fixed prostheses.
• Workflows: Conventional and digital
• Materials in fixed prostheses
• Aesthetic and functional planning
• Obtaining working models and registers for the assembly of physical models.
• Virtual articulation of digital "stl" files
• Diagnostic waxing
• Retentive milling principles
• Principles of non-retentive milling
• Treatment of the partially edentulous patient with a tooth-supported fixed partial denture
• Pre-prosthetic treatments
• Analysis, development and resolution of clinical cases

## 5. TEACHING-LEARNING METHODOLOGIES

The types of teaching-learning methodologies used are indicated below:

- MD1 Master class
- MD2 Case method.
- MD8 Simulation environments.

## 6. LEARNING ACTIVITIES

Listed below are the types of learning activities and the number of hours the student will spend on each one:

**Campus-based mode:**

| Learning activity | Number of hours |
|---|---|
| AF1 Master clases | 25 |
| AF3 Case studies | 18 |
| AF8 Activities in workshops and/or laboratories | 24 |
| AF10 Autonomous work | 79 |
| AF12 On-site evaluation tests | 4 |
| **TOTAL** | **150** |

# 7. ASSESSMENT

Listed below are the assessment systems used and the weight each one carries towards the final course grade:

**Campus-based mode:**

| Assessment system | Weight |
|---|---|
| SE1 On-site assesment tests | 40% |
| SE4 Case / problem | 10% |
| SE6 Performance evaluation | 50% |

When you access the course on the *Campus Virtual*, you'll find a description of the assessment activities you have to complete, as well as the delivery deadline and assessment procedure for each one.

## 7.1. First exam period

In order to pass the course in the ordinary exam session, you must obtain a grade higher or equal to 5.0 out of 10.0 in the final grade (weighted average) of the course. However, this grade will only be valid if the minimum requirements established for each of the assessable blocks have been met, as indicated in the learning guide. This means that, even if the weighted average is equal to or higher than 5.0, the subject will not be passed if any of the parts have not reached the minimum grade required.

In any case, it will be necessary to obtain a grade higher or equal to 5.0 in the final exam, so that it can be averaged with the rest of the evaluable activities that have been passed according to the criteria established in the learning guide.

**THEORY EVALUATION REGULATIONS**
The theory conforms a 40% of the final grade of the course. The evaluation will be a writing exam.
The exam will correspond to the totality (100%) of the final theory grade. It will consist on 40 questions multiple-choice, with one correct answer.

It is mandatory to answer to 80% of the questions, 32 of the 40 questions, answering to less than that, every unanswered question as well as every incorrect answer will subtract 33% (0.33point) to a correct answer. To pass the exam, a grade of 5 is required.

**PRACTICE EVALUATION REGULATIONS**
All practices will have to be attended physically at the laboratory practices and are MANDATORY.
The final practice grade (50%) will be the average of the graded practices corresponding to an 80% of the average with the tooth preparation exam grade (20%).
Each one must be passed independently.

- Practical activities.

The practices will be graded at the end of the scheduled dates in the calendar. Every finished practice will have a grade (an average of the different criteria evaluation) and the final grade will be an average of all them, as long as every practice is passed independently.

If one of the practices remain unfinished or has been failed, it will be mandatory to recover it with a grade of 5 or more, during the assigned days or attending the follow-up period in July. During the follow-up period no feed-back grades will be given. In July all the practices must be passed independently.

No final average will be made with a grade inferior to 5 in one of the practices.

The practices must be carried out and completed within the class hours, they cannot be completed outside those hours. NO LATE ENTRY TO THE LABORATORY AFTER THE START OF THE PRACTICE WILL BE ALLOWED. For the realization of some practices, it will be necessary to carry out the previous week an obligatory online activity, which will consist of the visualization of a video and the resolution of a test. Without carrying out this online activity it will not be possible to carry out the corresponding practice. We will notify you of these activities the week before they take place.

The absence or not having the necessary material for such practice will be scored with a 0.

During the retake period the student will not receive feedback, having to independently pass each practice with a grade of 5 or more.

No average will be given with a grade lower than 5 in any of the practices.

The whole practice must be done at the time arranged for it, and it is not possible to continue outside the laboratory.

Up to **two failed or missed** (with or without justification) practices may be recovered in the recovery weeks at the end of the semester, with **three or more practices** (failed or missed) it will be necessary to go directly to the July follow-up period.

The practices, material and evaluation rubrics are attached in the annex.

**EVALUATION CRITERIAS OF THE CLINICAL CASE.**

A clinical case will be presented based on the knowledge acquired during the course.

The clinical case exam will be evaluated through a 20 questions multiple-choice test where it will be mandatory to answer at least 80% of the questions, each question will have four options and one correct answer. An incorrect answer will subtract 0.33 points.

To pass the exam a grade of 5 or more will be required.

## 7.2. Second exam period

In order to pass the course in the extraordinary call, you must obtain a grade higher or equal to 5.0 out of 10.0 in the final grade (weighted average) of the course.

In any case, it will be necessary to obtain a grade higher or equal to 5.0 in the final exam, so that it can be averaged with the rest of the evaluable activities.

Depending on the parts not passed in the ordinary exam, you will have to make up those that have not reached the minimum grade required:

- If you have not passed the theory exam, you will have to repeat this test in the extraordinary call.
- If you have not passed the practical part of the subject (practical exam), you will have to take it again, according to the indications of the course professors.
- If any of the continuous assessment activities (theoretical or practical) have not been passed or were not presented in the ordinary exam, you must complete them in person during the follow-up period, at the established times. These activities may coincide with the original ones or be replaced by others, at the discretion of the professors.

# 8. SCHEDULE

This table shows the delivery deadline for each assessable activity in the course:

| Assessable activities | Deadline |
|---|---|
| Materials in fixed prosthesis. Introduction | Week 1 |
| Full metal crown. Preparation in 46 | Week 2 |
| Porcelain fused to metal crown. Preparation of the 36 | Week 3 |
| Porcelain fused to metal crown. Preparation of the 14. | Week 4 |
| Porcelain fused to metal crown. Preparation of the 24. | Week 5 |
| Preparation for full ceramic crowns: 23 Stratified and 11 Monolithic | Week 6 |
| Preparation for full ceramic crowns: 21 and 22 Monolithic | Week 7 |
| Preparation for full ceramic crowns: 23 and 43 Stratified | Week 8 |
| Veneer preparation of 22,21,31,32 | Week 9 |
| Veneer preparation of 12,11,41,42 | Week 10 |
| Reconstruction of endodontic tooth | Week 11 |

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|---|---|
| Dental preparation examination | Week 12 |
| Simodont and Intraoral Scanner | Week 13 |
| Retake | Week 14 and 15 |

This schedule may be subject to changes for logistical reasons relating to the activities. The student will be notified of any changes as and when appropriate.

# 9. BIBLIOGRAPHY

The main reference work for this subject is:


- Shillingburg, H.T. et al: Fundamentals of fixed prosthodontics, 4th ed. Quintessence Books.
- Rosenstiel, Land, Fujimoto. PROTESIS FIJA CONTEMPORANEA. Elsevier mosby.
- Jeffrey P Okesson. Management of temporomandibular disorders and occlusion. Mosby Elsevier.
- Gracis S et al. A new classification system for all-ceramic and ceramic like restorative materials. The international journal of prosthodontics. 2015. 28(3).227-235.
- Martínez Rus et al: Cerámicas dentales: clasificación y criterios de selección. RCOE, 2007, Vol. 12, Nº4.
- Ralph Riquier: Comparación de la técnica de fresado y la sinterización por láser. Quintessence técnica (ed. esp.). Volumen 18, Núm. 2. Febrero 2007
- The ideal restoration of endodontically treated teeh- estructural and estethetic considerations: a review of the literature and clinical guidelines for the restorative clinician. Konrad meyenberg
- La Tecnología CAD/CAM en la Consulta dental. The CAD / CAM Technology in Dental Consultation. Macías, F. Volumen IV. Número 1. Enero - Abril 2015. http://www.rodyb.com/la-tecnologia-cadcam


# 10. EDUCATIONAL GUIDANCE, DIVERSITY AND INCLUSION UNIT

From the Educational Guidance, Diversity and Inclusion Unit we offer support to our students throughout their university life to help them reach their academic achievements. Other main actions are the students' inclusions with specific educational needs, universal accessibility on the different campuses of the university and equal opportunities.

From this unit we offer to our students:

1. Accompaniment and follow-up by mean of counselling and personalized plans for students who need to improve their academic performance.
2. In terms of attention to diversity, non-significant curricular adjustments are made in terms of methodology and assessment for those students with specific educational needs, pursuing an equal opportunity for all students.
3. We offer students different extracurricular resources to develop different competences that will encourage their personal and professional development.

4. Vocational guidance through the provision of tools and counselling to students with vocational doubts or who believe they have made a mistake in their choice of degree.

Students in need of educational support can write to us at:

orientacioneducativa@universidadeuropea.es

## 11. ONLINE SURVEYS

Your opinion matters!

The Universidad Europea encourages you to participate in several surveys which help identify the strengths and areas we need to improve regarding professors, degree programs and the teaching-learning process.

The surveys will be made available in the “surveys” section on virtual campus or via e-mail.

Your assessment is necessary for us to improve.

Thank you very much for your participation.