

**COURSE DATA****Data Subject**

<b>Code</b>	34716
<b>Name</b>	Dental prosthesis I
<b>Cycle</b>	Grade
<b>ECTS Credits</b>	12.0
<b>Academic year</b>	2022 - 2023

**Study (s)**

<b>Degree</b>	<b>Center</b>	<b>Acad. year</b>	<b>Period</b>
1206 - Degree in Dentistry	Faculty of Medicine and Odontology	3	Annual

**Subject-matter**

<b>Degree</b>	<b>Subject-matter</b>	<b>Character</b>
1206 - Degree in Dentistry	19 - Dental prostheses	Obligatory

**Coordination**

<b>Name</b>	<b>Department</b>
FERNANDEZ DE ESTEVAN, LUCIA	131 - Stomatology
SELVA OTAOLAURRUCHI, EDUARDO JOSE	131 - Stomatology

**SUMMARY**

This course covers three distinct parts:

- Pathophysiology of the temporomandibular joint, which analyses the anatomy, physiology and basic pathology of this complex joint and its relationship with teeth.
- Removable total dentures, or full prosthesis, which studies the pathophysiology of totally edentulous patients and their treatment through conventional prostheses or overdentures on natural teeth or on osseointegrated implants.
- Removable partial dentures, which analyses the partial tooth loss of patients and the possibilities of rehabilitation through removable dentures.



This is an initial step prior to the treatment of edentulous patients with other techniques and materials: fixed prostheses, implant-supported dentures, mixed prostheses, etc.

## PREVIOUS KNOWLEDGE

### Relationship to other subjects of the same degree

**1206 - Degree in Dentistry :**

**1210 - Grado de Odontología 2012 :**

R4-OBLIGATION TO HAVE SUCCESSFULLY COMPLETED THE COURSE

34704 - Biomaterials and ergonomics I

34705 - Biomaterials and ergonomics II

34704 - Biomaterials and ergonomics I

34705 - Biomaterials and ergonomics II

### Other requirements

Es necesario que los alumnos tengan conocimientos amplios de Anatomía dental y maxilofacial, así como de fisiología general. Es indispensable que conozcan los biomateriales que se utilizan para llevar a cabo estos tratamientos.

## OUTCOMES

### 1206 - Degree in Dentistry

- Tener capacidad para elaborar un juicio diagnóstico inicial y establecer una estrategia diagnóstica razonada, siendo competente en el reconocimiento de las situaciones que requieran una atención odontológica urgente.
- Tratar el edentulismo tanto parcial como total, incluidos el diseño biológico (características específicas de diseño), preparación dentaria, obtención de registros, pruebas clínicas y adaptación a los pacientes de prótesis removibles parciales y completas, puentes sencillos dento-soportados y prótesis sencillas sobre implantes, tanto removibles como fijas, incluyendo su «colocación» y «puesta en servicio»,
- Realizar tratamiento no quirúrgico de los desórdenes témporo-mandibulares y dolor oro-facial.

## LEARNING OUTCOMES

- Know the current concepts in the field of occlusion and pathology related to the temporomandibular joint (TMJ).
- Know the anatomy and physiology of the TMJ.
- Know and use one or more types of articulators and face bows for the study, diagnosis and treatment of TMJ problems.



- Be competent to perform a basic analysis of the patient's occlusion.
- Be competent to establish a basic diagnosis and treatment in occlusive trauma, parafunctions and pain-dysfunction syndrome.
- Know the anatomy and physiology of the totally edentulous patient.
- Be competent in handling and manipulating materials and techniques needed to build a complete removable prosthesis.
- Be competent to instruct patients how to keep their oral cavity healthy and their prostheses in good working conditions.
- Be competent to diagnose and treat patients who may need an immediate prosthesis and, where appropriate, an overdenture.
- Know the anatomy and physiology of the partially edentulous patient.
- Understand the biomechanics of the removable partial denture and properly handle specific instruments such as the dental surveyor.
- Be competent in handling and manipulating the materials and techniques necessary for the construction of a removable partial denture.
- Be competent to diagnose, design, specify and install a removable partial denture.

## DESCRIPTION OF CONTENTS

### 1. 1. Pathophysiology of the Temporomandibular Joint

Development of the basic concepts in occlusion, interrelation of this subject with others disciplines; memory of the anatomy and biodynamics applied to the temporomandibular joint complex. Dentition and dental arches, their components and inter- and intra-arcada relationships; development of occlusion. Basic jaw positions. Methods of recording mandibular positions; mandibular kinematics. Occlusive schemes and relationship with mandibular dynamics. Articulators and facial arches: generalities and use. Assembly and programming of articulators. Intermaxillary relationships. Aesthetic and dynamic registers. Previous guide: importance. Methods of determination and reconstruction. Later determinants of occlusion. Importance in occlusive morphology. Occlusive schemes. Your choice according to the treatment to be performed. Objectives of occlusive restoration. Schools of occlusion. Aesthetic and dynamic occlusive analysis. Physiological occlusion criteria. Adaptive occlusion. Pathological occlusion. Occlusive trauma. Parafunctions. Importance in the maintenance of occlusive health. Answer Pathological. Occlusive trauma. Introduction to craniomandibular dysfunction syndrome. Aetiology. Clinical manifestations and repercussions on oral health.

### 2. Removable Total Denture

The patient edentulous. Diagnosis and treatment plan of total toothlessness. Anatomy of total toothlessness. Printing materials. Printed in toothless. Printing techniques. Vertical Dimension. Intermaxillary relationships. Artificial teeth. Assembly of teeth. Clinical trial. Laboratory procedures. Selective carving. Completion and delivery: problems. Overpass and repairs. Clinical sessions in the elaboration of a removable total prosthesis.



Immediate prosthesis. Overdentures.

### 3. Removable Partial Denture

Introduction to the removable partial prosthesis. Concepts. Bioanatomical and biomechanical factors in removable partial prostheses.

Constituent elements of a removable partial prosthesis. Major and minor connectors. Guide plans. Occlusal stops. Direct retainers. Occlusion in removable partial prosthesis. Indirect retainers. Prosthetic bases. Artificial teeth.

Biomechanics. Printed on removable partial prostheses. The parallel: concept and use. Design of the removable partial prosthesis: general principles Elaboration in the laboratory. Completion and delivery of the removable partial prosthesis. Overruns and repairs.

Clinical sessions in the elaboration of a removable partial prosthesis.

Acrylic resin prostheses or partial. Nylon.

## WORKLOAD

ACTIVITY	Hours	% To be attended
Laboratory practices	103,00	100
Theory classes	54,00	100
Classroom practices	14,00	100
Odontology practices	9,00	100
Development of group work	10,00	0
Development of individual work	10,00	0
Study and independent work	15,00	0
Readings supplementary material	20,00	0
Preparation of evaluation activities	25,00	0
Preparing lectures	15,00	0
Preparation of practical classes and problem	15,00	0
Resolution of case studies	10,00	0
<b>TOTAL</b>	<b>300,00</b>	

## TEACHING METHODOLOGY

The information covering the theory contents described in the course syllabus will be supplemented and extended. Students must prepare these topics to be discussed in class with lecturers.

This knowledge will be supported and supplemented by clinical and laboratory practicals, which will focus on theoretical knowledge already taught in class.

Topics of special interest or for specialising in a certain technique will be taught in seminars, which will be delivered by voluntary or designated students chosen to prepare and present the topics to the rest of students in the presence of lecturers.



## EVALUATION

The Evaluation of theoretical knowledge will be carried out through a written, partial and eliminatory theoretical exam of subject (with 7 or more points out of 10) to be carried out in the month of January. If the student equals or exceeds this score, he eliminates the first thematic block taught from the subject.

At the end of the course there will be a theoretical examination of the contents of the three thematic blocks of the subject. Students who have eliminated the first block will only be examined in the second and third blocks. 5 theoretical questions will be asked from each of the 3 thematic blocks, which will be evaluated on 10 points each.

The final grade will be the average of the three grades and the student will approve, this part of theoretical contents, if in each of the blocks he gets a minimum of 5 points.

The practical part will be evaluated continuously, assessing each of the phases of the work to be carried out (60 grades). The theoretical/practical knowledge of the students in the seminars will also be valued, through Kahoot test. Each assessment is made up to a maximum of 10 points and the final grade of the practical part will be the average grade.

A final practical test will also be carried out, where the student will carry out a work of those carried out during the year and must answer some questions about practical photographs. It will be graded on 10 points with the average grade (but each part must be approved independently).

To pass the practical part, the two grades obtained in practice will be added and must be equal to or greater than 5 points.

The final grade of the subject will be the arithmetic average of those obtained in the theoretical and practical part, being necessary that both are equal to or greater than 5 points.

It is a requirement to access the advance of the call for this subject that the student has taken advantage of all his practices.

Attendance at practices and seminars is mandatory, not being able to overcome the 3 absences of attendance (considering that in this way you will not be able to meet the practical requirements of the subject).

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

## REFERENCES





### Basic

- Dawson P. Evaluación, diagnóstico Y tratamiento de los problemas oclusales. la ed. española de la 2ª ed. en inglés. 1991. Barcelona. Salvat Editores.
- Drücke W. Klemmt B. Bases de la prótesis dental total. 1991 .Ed. Doyma. Barcelona (España).
- Mallat, Keogh. Prótesis Parcial Removible. Clínica y laboratorio. Ed. Mosby/Doyma libros.

### Additional

- Okeson J. Oclusión y afecciones temporomandibulares. La ed. española de la 3ª ed. en inglés. 1995. Madrid. Mosby/Doyma Libros
- Llena J. prótesis completa. 1988. Ed. Labor. Barcelona (España).
- McGivney, Castleberry. McCracken. Prótesis Parcial Removible. Editorial Médica Panamericana.