

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

Code	34716
Name	Dental prosthesis I
Cycle	Grade
ECTS Credits	12.0
Academic year	2017 - 2018

Study (s)

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

Subject-matter

Degree	Subject-matter	Character
1206 - Degree in Dentistry	19 - Dental prostheses	Obligatory

Coordination

Name	Department
BARUTELL CASTILLO, ALFONSO LUIS DE	131 - Stomatology
SELVA OTAOLAURRUCHI, EDUARDO JOSE	131 - Stomatology
SEMENT VICENTE, GISELA	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 basic concepts in occlusion, interrelation of this subject area with other disciplines; memory of the anatomy and biodynamics applied to the temporomandibular joint complex. Teething and dental arches, their components and inter- and intra-arches relations; occlusion development. Basic positions of the mandible. Methods for registration of mandibular positions; mandibular kinematics. Occlusive schemes and relationship with mandibular dynamics. Articulators and face bows: generalities and use. Assembly and programming of articulators. Jaw relations. Aesthetic and dynamic records. Anterior guidance: importance. Methods of determination and reconstruction. Subsequent determinants of occlusion. Importance in occlusive morphology. Occlusive schemes. Choice depending on the treatment to be administered. Objectives of occlusive restoration. Occlusion schools. Aesthetic and dynamic occlusive analysis. Occlusion physiological criteria. Adaptive occlusion. Pathological occlusion. Occlusive trauma. Parafunctions. Importance in maintaining occlusive health. Pathological response. Occlusive trauma. Introduction of craniomandibular dysfunction syndrome. Etiology. Clinical manifestations and impact on oral health.

2. Removable Total Denture

Edentulous patient. Diagnosis and treatment plan of edentulous patients. Anatomy of the edentulous. Printing materials. Printing in edentulous patients. Printing techniques. Vertical dimension. Jaw relations. Artificial teeth. Installation of teeth. Clinical trial. Laboratory procedures. Selective cutting. Completion and delivery: problems. Repairs. Clinical sessions for the preparation of a full removable denture. Immediate prostheses. Overdentures.

**3. Removable Partial Denture**

Introduction to removable partial dentures. Concepts. Bioanatomical and biomechanical factors in removable partial dentures.

Constituent elements of a removable partial denture. Major and minor connectors. Guiding planes.

Occlusive supports. Direct retainers. Occlusion in removable partial dentures. Indirect retainers. Denture bases. Artificial teeth.

Biomechanics. Printing in removable partial dentures. The dental surveyor: concept and use. Design of removable partial dentures: general principles. Preparation in the laboratory. Completion and delivery of removable partial dentures. Rebasing and repairs.

Clinical sessions for the preparation of a removable partial denture.

Acrylic resin or partial prostheses. 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
TOTAL	300,00	

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 acquisition of theory knowledge will be tested through a written partial test scheduled for January. If the student attains or exceeds 7 or more points out of 10, he or she won't need to be tested on this first block of contents again (Pathophysiology of temporomandibular joint).

At the end of the academic year, a theory examination of the contents of the three blocks will be administered. Students who have passed the test on the first block will be tested only on the second and third blocks of content.

The exam will include 5 theory questions for each of the three blocks, which will be given a mark on the scale 0 to 10. The final grade is the average of the three marks and a student will pass the theory component by getting a minimum of 5 points in each of the blocks.

The practical component will be evaluated on an ongoing basis, by assessing each of the phases of the assignments to be completed (60 marks). Each assessment item is worth a maximum of 10 points and the final grade for the practical component will be the average mark of all these. There will also be a final practical test in which students will do one of the tasks performed during the course. It may award up to 10 points. To pass the practical part, the average of the two marks obtained in the practice must be equal to or greater than 5.

The final mark of the subject will be the arithmetic mean of those obtained in theory and practice, and both must be equal to or greater than 5 points.

To bring forward the final examination sitting for this subject, the student must have successfully completed all the practical items.

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. Klemt B. Bases de la prótesis dental total. 1991 .Ed. Doyma. Barcelona (España).
- Mallat, Keogh. Prótesis Parcial Removable. 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.

