COURSE DATA

DATA SUBJECT

Code: 34740
Name: Mixed prosthetics and implant prosthetics
Cycle: Undergraduate Studies
ECTS Credits: 6
Academic year: 2025-26

STUDY (S)

Degree	Center	Acad. year	Period
1206 - Degree in Dentistry	Facultat de Medicina i Odontologia	5	Second quarter

SUBJECT-MATTER

Degree	Subject-matter	Character
1206 - Degree in Dentistry	Mixed prosthetics and implant prosthetics	ELECTIVES

COORDINATION

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SUMMARY

In combined prostheses, knowledge related to a type of dental prostheses, which require more sophisticated and specialised techniques than normal, is developed.

Combined prostheses implies that students apply both knowledge on fixed and removable prostheses, which have been already taught in the subject 'Dental Prostheses I and II', and knowledge on biomechanics of retention systems, like attachments which connect them.

Prostheses on implants introduces a completely unknown system for students, both with respect to their indications and the components used. Specific competencies have to be developed in order to manufacture prostheses, free distal edgeand complete oral rehabilitation ones.

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

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

There are no specified enrollment restrictions with other subjects of the curriculum.

OTHER REQUIREMENTS

To enrolin this subject, students must have passed 108 credits from the following module: Dental pathology and therapeutics.

COMPETENCES / LEARNING OUTCOMES

1206 - Degree in Dentistry

Determinar e identificar los requisitos estéticos del paciente y de las posibilidades de satisfacer sus inquietudes.

Diagnosticar, planificar y realizar, con carácter general, un tratamiento multidisciplinar, secuencial e integrado de complejidad limitada en pacientes de todas las edades y condiciones y en pacientes con necesidades especiales (diabéticos, hipertensos, oncológicos, transplantados, inmunodeprimidos, anticoagulados, entre otros) o discapacitados. Específicamente, el dentista debe ser competente en el establecimiento de un diagnóstico, de un pronóstico y el desarrollo de una adecuada planificación terapéutica

Diseñar, preparar los dientes, prescribir, registrar, realizar pruebas clínicas y colocar y poner en servicio restauraciones indirectas: incrustaciones, carillas o frentes laminados estéticos y coronas unitarias,

Elaborar las prescripciones de los productos sanitarios a medida «prótesis dentales» y «aparatos de ortodoncia y ortopedia dento-facial».

Realizar modelos diagnósticos, montarlos y tomar registros inter-oclusales.

Tomar e interpretar radiografías y otros procedimientos basados en la imagen, relevantes en la práctica odontológica.

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»,

Valorar y tratar al paciente con caries su otra patología dentaria no cariosa y ser capaz de utilizar todos los materiales encaminados a restaurar la forma, función y la estética del diente en pacientes de todas las edades.

DESCRIPTION OF CONTENTS

1. THEORETICAL PROGRAM 1-6

UNIT 1: Diagnosis and Treatment Plan in Prostheses on Implants (I).
Indications of the Prosthesis on Implants.
Medical History: Cardiovascular, renal, endocrine, coagulation, medication in a patient who is going to undergo surgery with implants.
Dental History: Surgical, periodontal, restorative, prosthodontic and parafunctional considerations in a patient who is going to undergo surgery with implants.
Anatomical aspects of the jaws related to implantology.

UNIT 2: Diagnosis and Treatment Plan in Prostheses on Implants (II).
Diagnosis by the image.
1. Bidimensional: Intraoral radiographs and panoramic radiographs. Advantages and disadvantages. Indications.
2.Tridimensional: CBCT scanner. Indications. Study models. Assembly in articulator. Diagnostic waxing

UNIT 3: Morphology of the implants. Connections
Types of implants. Design of the implant body. Surfaces and osseointegration.
Implant head connections: Internal. External. Conical. Hexagonal.
Biomechanics of the implant-transepithelial abutment connection.
Platform swiching.

UNIT 4: Implants Impressions.
Impresision abutments.
Direct technique or drag (pickup).
Indirect or repositioning technique.
Rigid printing splints.
Digital impressions with intraoral and extraoral scanner.

UNIT 5: Implant abutments.
Concept of transepithelial (abutment).
Classification:
-Parly modifiable: Straight pillar and angled pillar. Interface abutments.
-Totally modifiable: UCLA and CAD / CAM.
-Not modifiable.
Indications.
Cemented prosthesis versus screwed prosthesis.

UNIT 6: Unitary prosthesis on implants.
Characteristics of abutments in unitary prostheses anterior sector and posterior sector.
Cemented abutments. Screwed abutments.
Metal abutments. Zirconia abutments.
Previous sector aesthetics.
BOPT technique in implants.
Resolution of clinical cases.

2. THEORETICAL PROGRAM 7-12

UNIT 7: Prosthesis on implants to free distal end.
Characteristics of the prosthesis to free distal end.
Screwed prosthesis versus cemented prosthesis.
Indications of the transepithelial pillars.
Resolution of clinical cases.
UNIT 8: Overdentures on implants.
Diagnosis and indications.
Design of bars or unit anchors.
Clinical sessions for the manufacture of the overdenture.
Upper and lower arcade treatment plan.
Clinical cases.
UNIT 9: Full arch oral rehabilitation with fixed prosthesis on implants (I). Basic principles.
Diagnosis and treatment plan in edentulous patients type I and II.
Fixed prosthesis screwed / cemented. Hybrid prosthesis.
Surgical guides.
UNIT 10: Full arch oral rehabilitation with fixed prosthesis on implants (II). Clinical cases.
UNIT 11: Combined prosthesis. Concept. Biomechanics. Attachments Clinical cases.
UNIT 12: Telescopic prosthesis. Clinical sessions Clinical cases.

3. PRACTICE

PRACTICE I

-Introduction to the management of 3D radiological software using CBCT (Cone Beam Computed Tomography).
Students will bring their laptop where they will upload the software delivered by the teacher for practice.
- Viewer installation.
- Determination of the arches based on the occlusal plane or the radiological splint.
- Determination of axial and sagittal cuts.
- Location of significant anatomical areas for planning (maxillary sinuses, nasal passages, nerve channels).
- Marking of the inferior alveolar nerve.
- Case design with implants: Planning and measurements.
- Design of the prosthesis.
- Export and capture of data and images.

PRACTICE II
Implant placement in phantoms:
-Handling the surgical box.
-Implant placement sequence.

PRACTICE III

- Hands on accessories for the prosthesis on implants:
- Study of the different connections of the implant head.
- Manipulation of different types of implant abutments.
- Handling of impression abutments and implant analogs.
- Sequence for taking impressions.
Intraoral scanning
Drag or direct impression technique for open tray or ¿pick-up¿
Replacement technique

- Preparation of the master model
- Communication with the dental laboratory

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Theory	27,00
Laboratory	8,00
Classroom practices	25,00
Total hours	**60,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	0,00
Independent study and work	0,00
Preparation of lessons	40,00
Preparation for assessment activities	0,00
Resolution of case studies	50,00
Total hours	**90,00**

TEACHING METHODOLOGY

Theoretical contents will be taught through master classes, with multimedia resources as support. Practise in the laboratory will be done through simulation models.

The gender perspective, respect for diversity and the sustainable development goals (SDGs) will be incorporated into teaching, whenever possible.

EVALUATION

To pass the subject, the qualification of apt must be obtained (minimum of 5 points out of 10).

Final exam: written exam consisting of 5 short development questions about the subject taught.

Each question will have a value of 2 points.

The final grade is distributed evenly between the final theoretical exam (50%) and the practical exams, participation in theoretical classes and resolution of practical cases (50%).

The student must obtain a minimum score of 5 in each individual part in order to pass the subject.

Attendance at practical activities is mandatory. The student is considered to meet this requirement if he or she has attended a minimum of 80% of these activities and has adequately justified the impossibility of attending the remaining sessions due to the occurrence of a cause of force majeure. It will be essential to comply with this requirement to pass the subject.

Students are reminded of the importance of carrying out evaluation surveys to all teaching staff of the degree subjects.

REFERENCES

- Precision attachments in Prosthodontics: The applications of intracoronal and extracoronal attachments. Preiskel HW. Quintessence books, Chicago 1984. Vol. 1 y 2.
- An atlas of overdentures and attachments. Jumber JF. Quintessence books, Chicago, 1981. - Implantología contemporánea. Misch CE. Elsevier Mosby, Barcelona 2009. - Prótesis dental sobre implantes. Misch CE. Elsevier Mosby, Barcelona 2005.
- Misch, Implantología contemporánea. 4 edición de Resnik Randolph R. Elsevier, Barcelona 2021.
- RECURSOS e-Salut:
- - ClinicalKey Student Medicina, Odontologia y Enfermería [https://uv-es.libguides.com/RecursosSalut]
- - Acces Medicina [https://uv-es.libguides.com/Access_Medicina]
- - Médica Panamericana [https://uv-es.libguides.com/Medica_Panamericana]