



## COURSE DATA

### Data Subject

<b>Code</b>	34720
<b>Name</b>	Orthodontics I
<b>Cycle</b>	Grade
<b>ECTS Credits</b>	12.0
<b>Academic year</b>	2018 - 2019

### Study (s)

<b>Degree</b>	<b>Center</b>	<b>Acad. Period year</b>
1206 - Degree in Dentistry	Faculty of Medicine and Odontology	4 Annual

### Subject-matter

<b>Degree</b>	<b>Subject-matter</b>	<b>Character</b>
1206 - Degree in Dentistry	21 - Orthodontics	Obligatory

### Coordination

<b>Name</b>	<b>Department</b>
GANDIA FRANCO, JOSE LUIS	131 - Stomatology

## SUMMARY

The compulsory subject Orthodontics I, is the first part of Orthodontics matter belonging to Dental Pathology and Therapy Module. This subject has a total of 18 ECTS credits that are divided between Orthodontics I, which is offered in 4th course of the Degree having 12 ECTS credits and Orthodontics II, which is offered in 5th course of the Degree having 6 ECTS credits.

Relatively independent of the rest of the subjects of the module in its diagnosis methods and classification, clinical treatment procedures and part of the basic sciences on which it is based, Orthodontics I provides a diachronic view of the dentition and the possibilities of changing the provision and occlusion of teeth in different moments of life of the patient.

It has a special relationship and some matches, without excluding relations with Basic Science, with Pediatrics Dentistry and Prosthetics, which orthodontics can add options or improve treatment. It also shares responsibility in some types of treatment with Oral Surgery and Orthognathic Surgery and Periodontics, especially regarding periodontium biology, and finally with Biomaterials Science and Epidemiology.



In the subject of Orthodontic I, basic knowledge and skills in morphological, etiopatogenic and descriptive diagnosis of occlusion and malocclusion are covered. The development of dentition, craniofacial growth, biomechanics and use of treatment materials, biology of tooth movement, general characteristics of treatment, appliances and risks associated with orthodontic therapy is studied. Specific models of clinical treatment of malocclusions are developed in the subject of Orthodontics II.

## 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

34696 - Human anatomy

34697 - Biology

34698 - Human physiology

34699 - Biochemistry

34702 - Psychology and communication

34703 - Biostatistics and public health

34696 - Human anatomy

34697 - Biology

34698 - Human physiology

34699 - Biochemistry

34702 - Psychology and communication

34703 - Biostatistics and public health

### Other requirements

## OUTCOMES

#### 1206 - Degree in Dentistry

- Saber realizar un examen bucal completo, incluyendo las oportunas pruebas radiográficas y de exploración complementarias, así como la obtención de adecuadas referencias clínicas
- Conocer y aplicar el tratamiento básico de la patología bucodentaria más habitual en pacientes de todas las edades. Los procedimientos terapéuticos deberán basarse en el concepto de invasión mínima y en un enfoque global e integrado del tratamiento bucodental.



- Tomar e interpretar radiografías y otros procedimientos basados en la imagen, relevantes en la práctica odontológica.
- Realizar modelos diagnósticos, montarlos y tomar registros inter-oclusales.
- Elaborar las prescripciones de los productos sanitarios a medida «prótesis dentales» y «aparatos de ortodoncia y ortopedia dento-facial».
- Determinar e identificar los requisitos estéticos del paciente y de las posibilidades de satisfacer sus inquietudes.
- Planificar, determinar las características específicas de diseño, registros, prescripción, pruebas clínicas, colocación y ajuste clínico para puesta en servicio de mantenedores de espacio fijos y removibles y técnicas de ortodoncia interceptiva así como elementos activos extraíbles destinados a desplazar dientes o corregir mordidas cruzadas.
- Identificar y corregir hábitos bucales susceptibles de causar o exacerbar maloclusiones.

## LEARNING OUTCOMES

The theoretical classes should make the students know the analysis and interpretation of the records for the diagnosis and orthodontic treatment planning. Also, the student must know the biological bases of development of teeth and bone as the development of oral habits, malocclusion and knowing how to apply appropriate therapy to each of them.

Secondly, the realization of practical classes under proper supervision of the teachers, should make students acquire sufficient knowledge to conduct an appropriate radiological and cephalometric analysis with different cephalometric techniques, an analysis of study models from the diagnostic point of view, wire-bending of different thicknesses, and finally making removable orthodontic appliances with all its components.

## WORKLOAD

ACTIVITY	Hours	% To be attended
Classroom practices	80,00	100
Theory classes	66,00	100
Laboratory practices	34,00	100
Development of group work	10,00	0
Development of individual work	10,00	0
Study and independent work	50,00	0
Readings supplementary material	20,00	0
Preparation of evaluation activities	20,00	0
Resolution of case studies	10,00	0
<b>TOTAL</b>	<b>300,00</b>	



## TEACHING METHODOLOGY

1. **THEORETICAL CLASSES:** 3 hours per week throughout the course. The class is an oral exposure by the teacher of basic and new concepts. It will be done through active participation of students to facilitate their knowledge acquisition.

2. **PRACTICAL CLASSES:** 3 hours per week throughout the course. Groups will be of 40 students. Practices are preferably a training activity aimed to the practical application of theoretical knowledge and training in some necessary orthodontics skills. The student will have a practical guide (teacher) who will facilitate the work and monitor the content of the practices clearly and simply.

3. **LABORATORY CLASSES:** 2 hours per week during the second semester. Groups will be of 16 students who will diagnose cases with complete records and draw up various treatment plans that will be presented to their peers and discussed collectively in class. This type of exercise is also made in the subject of Orthodontics II. Moreover, the possibilities and limitations of treatment procedures will be discussed in the study of the clinical cases. It may also carry out a monograph.

We intend to have a program with some scope for adaptation to the evolution of each concrete course.

## EVALUATION

Partial written exam of short questions will be done in the month of January. It removes matter from June if the grade is greater or equal to 7 of the total qualifying questions.

A final written exam of short questions will be done on the first call of June. A final written exam of short questions will be done on the second call of June.

Final grade will be the average of the theoretical examination; qualifications obtained in the participation in seminars and obtained from the evaluation of skills and use of classes and laboratory practices. It is required that the student has completed all of their practices.

## REFERENCES

### Basic

- Ortodoncia. Principios y técnicas actuales Graber/Vanarsdall/Vig 5ª Edición
- Ortodoncia Contemporánea, 5ª edición Autor (s): Proffit/Campos/Sarver Fecha de publicación: 04 de mayo 2012 Pie de imprenta: Mosby ISBN: 9780323083171
- Ortodoncia clínica y terapéutica Jose Antonio Canut Brusola 2ª ed



**Additional**

- Biomecánica en ortodoncia clínica. Ravindra Nanda - 30/06/1998 - 308 páginas.
- Tratamiento Ortodóncico y Ortopédico Dentofacial Rakosi/Graber 2012.
- Biological Mechanisms of Tooth Movement Vinod Krishnan y Zeed Davidovitch 2009.

