Universidad Europea

1. BASIC INFORMATION

Course	ORTHODONTICS II
Degree program	DENTISTRY
School	FACULTY OF HEALTH SCIENCES
Year	THIRD YEAR
ECTS	6 ECTS
Credit type	OBLIGATORY
Language(s)	ENGLISH/ SPANISH
Delivery mode	CAMPUS-BASED
Semester	SECOND SEMESTER
Academic year	2020-2021
Coordinating professor	CAROLINA ANDRÉS CASTELLÓ/ RAFAEL FERNÁNDEZ

2. PRESENTATION

Contextualization of the contents within the module "Pathology and Dental Therapeutics". It is the first subject that initiates students in orthodontic therapy and in it the features of a normoclusion will be explained to correctly diagnose occlusal problems in a patient. A correct diagnosis is made not only with good knowledge of the dentition of a child patient, but also with the study of their growth and development and its evolution over time, studied by a number of cephalometric analysis that will be seen in detail in subject.

Contextualization of the powers of the topic within the module "Pathology and Dental Therapeutics".

In this course a number of competencies of the degree in dentistry are developed: Understanding the basic biomedical sciences on which dentistry is based to ensure correct bucco-dental care (11), understand and recognize the structure and normal function of the oral cavity, to molecular, cellular, tissue and organ level, at different stages of life (12), understand and recognize sciences essential biomaterials for dental practice and immediate handling of possible allergies to them (13), obtain and develop a medical record that contains all relevant information (20), namely a complete oral examination, including appropriate radiographic and additional exploration testing and

obtaining appropriate clinical references (21), and the capacity to develop an initial diagnosis and establish a reasoned diagnostic strategy, competent in the re knowledge of situations that require urgent dental care (22).

Module contextualization "Pathology and Dental Therapeutics" in the degree. As is reflected in the curriculum, this module is key in the formation of a future dentist for being the largest degree.

3. COMPETENCIES AND LEARNING OUTCOMES

The following table shows the relationship between the competencies developed during the course and the learning outcomes pursued:

Competencies	Learning outcomes
GC12,GC14,GC15,GC19,GC20,GC22,GC23,BC5,SC34,SC35,SC60	LO1
GC15,GC19,GC20,GC22,GC22,GC23,BC5,SC34,SC35,SC36,SC60	LO2
GC12,GC14,GC15GS19,GC20,GC22,GC23,BC5,SC34,SC35,SC39,SC60	LO3
GC19,BC5,SC34,SC35,SC47,SC59,SC60,SC61	LO4
GC1,GC3,GC9,GC10,GC12,GC13,GC15,GC16,GC19,GC25, BC1,BC2,BC4,BC5,TC1,TC4,TC7,TC8,TC9,SC34,SC35, SC37,SC38, SC39,SC40,SC41,SC42,SC43,SC44,SC45,SC46,SC47,SC48,SC49, SC50,SC51,SC52, SC53,SC54,SC55,SC56,SC57,SC58,SC59,SC60	LO5

4. CONTENT

Theoretical content

The material is organized into five learning units (LU), which in turn are divided into lessons.
UNIT I: DEVELOPMENT AND ALTERATIONS OF DENTAL ERUPTION. Lesson 1 - Physiopathology of eruption.
Lesson 2 - Abnormalities of eruption.

UNIT II: FUNCTIONAL ALTERATIONS. Lesson 3 - Functional alterations.

UNIT III: BIOMECHANICS.
Lesson 4- Biomechanics in orthodontics.
Lesson 5 - Tissue response to orthodontic forces. Lesson 6 - Types of tooth movement.
Lesson 7- Biology of tooth movement.

UNIT IV: APPLIANCES AND WIRES.
Lesson 8- Wires I.
Lesson 9 - Wires II.
Lesson 10 – Removable appliances. Lesson 11- Fixed appliances.

UNIT V : TREATMENT PLAN.
Lesson 12- Treatment plan. Lesson 13- Class I.
Lesson 14- Class II Division 1. Lesson 15 - Class II Division 2.
Lesson 16 - Class III.
Lesson 17 - Transversal malocclusions. Lesson 18- Deep bite.
Lesson 19 - Open Bite

Content pre-clinical practices
Facial Analysis practice.

Wire bending on templates.

Removable appliances

Adams clasps

Making a vestibular bow.

Analysis and development of complete clinical cases.

5. TEACHING-LEARNING METHODOLOGIES

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

- Master class
- Case method
- Problem-based learning
- Simulation environment

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
Theoretical classes	50h
Laboratory practices	36,6h
Practical exercises	23,3h
Case analysis	16,6h
Seminars	10h
Tutorials	13,3h
TOTAL	**150 h**

7. ASSESSMENT

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

Assessment system	Weight
Knowledge test	40%
Preclinical practices	40%
Case analysis	10%
Case-Problem	10%

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

To pass the course in the first exam period, you must

- Overcome each part of the subject independently with a rating equal to or greater than 5 out of 10 (weighted average).
- Attend 75% of the theoretical sessions and 90% of practical activities. If absences occur in theory, it is considered that the student has not reached the necessary skills to pass the subject

and will fail in the ordinary call, having to go to the exam in the extraordinary call. If absences occur during practice, the student will be failed in the ordinary call and will be presented in the extraordinary call to retake the activities determined by the teacher.

Theory (40% of the final grade)

- A written test will be done that will consist of 40 multi-choice questions from the syllabus of the course and the course content done during practice. Each question has a grade of 0,25 points out of 10.

- Every three questions wrongly answered, a correct one will be subtracted. These 10 questions will have a weight of 40% of the total grade for the course and the student will need a score equal to or greater than 5 out of 10. If the student fails the test, the student must attend the extraordinary call.

- Attendance is mandatory to 75% of the theoretical lessons.. Every 3 delays greater than 15 minutes is considered as a lack of assistance.

Practical part (40% of the final grade)

- A continuous evaluation of pre-clinical practice will be held. The work will be grade in each of the practices during the semester. In addition, throughout the semester, they will be running tests assessment about the practices. The overall grade is obtained as average between the various grades obtained depending on the contents to be evaluated at all times.

- The pre-clinical practices carried out during the semester will have a weight of 20% of the total mark of the practices. This part is not recovered in extraordinary call, the average of the grade obtained will remain.

- The remaining 20% will be obtained from a test of cephalometric tracing, which will be held on the last practice of the subject. This test will be overcome with a score equal to or greater than 5 out of 10. If the student fails the test, the student must attend the extraordinary call.

- Attendance at practices is mandatory. It has to reach 90% of attendance to practices. If the studenet doesn´t reach 90% of attendance during practices, the practice continuous assessment will be suspended and the student will not exceed the practical part of the course, having the failed subject in the ordinary call. Each 3 delays greater than 15 minutes is considered as a lack of assistance to practice.

- *"Attendance to laboratory practices is MANDATORY. Not attending these practices implies to failure. It is necessary to have the laboratory practices approved independently to be able to make an average with the rest of the evaluable activities "*

Case analysis (10% of the final grade)

- A test of a clinical case with images will be carried out once all the theoretical topics about the subject are completed. Any of the theoretical content taught in the subject can be avaluated.
- The clinical case will be held together with the theoretical test, the same day.
- To pass the resolution of clinical cases, it is necessary is necessary to obtain an equal or greater rating of 5 out of 10.
- This part if not passed in the ordinary call, it will be recovered in the extraordinary call the same day of the theoretical tests.

Case / problem (10% of the final grade)

- A debate called "Point / Counter Point" in which groups will discuss issues of clinical character in orthodontics is performed.
- They will be provided with articles from scientific nature which will they will use to make a power point presentation where the content of the article is exposed.
- To pass this exercise, it is necessary to obtain an equal or greater rating of 5 out of 10.
- This part is not recovered in extraordinary call, the average will kept the mark obtained but attendance at these presentatios is mandatory regardless if the student presents or not that day.
- Non-attendance means a grade of 0 in this part.

Students that do not obtain at least a score of 5 out of 10 have failed the subject.

Each percentage described above in the different sections of the course will have to be qualified independently and the average will be obtained following the criteria described above.

In case of failing any of the parts that have to be overcome in the ordinary call (theoretical test, Cephalometry ...), all other grades will be respected and after passing the corresponding part, the average will be done.

To make the average the student must overcome all the parts separately.

Class attendance is mandatory and practices under Article 1.4 of the Rules of evaluation to a minimum of 75% of the theoretical classes and 90% of practices.

Other considerations:

The theory sessions will be of 2h. Two sessions will be held weekly, theoretical and practical. The student will be asked to work 4 hours / week outside the classroom. In each session the study activities and works in group or individual are specified to the student to take place outside the classroom.

The materials that comprise the course are structured: LEARNING GUIDE, PRACTICE GUIDE, THEORY LESSONS, LABORATORY PRACTICE STATEMENTS, OTHER ACTIVITIES. Blackboard will be used to provide access to these materials and grouped by themes and practices.

Adjust times of the student dedication to the realization of each of the practices. To do so, ask the student to note down into memory the time used in performing the practices.

To prevent accidents during practice, it is mandatory that students strictly complied with the instructions given at the beginning of each session.

In the first practice they will be presented in detail inexcusable compliance standards in the laboratory.

The student must be very careful in using sharp instrumental like wax and plaster spatulas when preparing the orthodontic study models.

7.2. Second exam period

To pass the course in the second exam period, you must:

- Repeat each of the parts of matter which have been failed in the ordinary call.
- Those parts that has exceeded the mark of 5 out of 10 are saved.
- The tests will be with the same format as in the ordinary call.
- Continued clinical practices can not be recovered.
- Case / problem activities can not be recovered.
- The case analysis will recovered the same day of the theoretical test resit
- Cephalometric exam can be recovered by re-examination on the date set by the faculty or the same day as the theoretical tests are performed.

To pass the subject, all parts must be approved separately with a grade from 5 to 10. Only then an average with the other parts can be done

8. SCHEDULE

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

Assessable activities	Deadline
Knowledge theory test	JUNE 2021
Case analysis	JUNE 2021
Pre-clinical practice	February-June
Cephalometric practical test	Date to be determined
Clinical case/Problem	Date to be determined

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

9. BIBLIOGRAPHY

The recommended bibliography follows:

- BRAVO, L.A. (2007). **Manual de Ortodoncia**. Madrid: Síntesis.
- CANUT BRUSOLA, J.A. 2005). **Ortodoncia Clínica y Terapéutica**. Barcelona: Masson. 2ª edición.
- PROFFIT, W. (2018). **Contemporary Orthodontics**. Philadelphia, IL: Elsevier. 6th edition.

10. DIVERSITY MANAGEMENT UNIT

Students with specific learning support needs:

Curricular adaptations and adjustments for students with specific learning support needs, in order to guarantee equal opportunities, will be overseen by the Diversity Management Unit (UAD: Unidad de Atención a la Diversidad).

It is compulsory for this Unit to issue a curricular adaptation/adjustment report, and therefore students with specific learning support needs should contact the Unit at unidad.diversidad@universidadeuropea.es at the beginning of each semester.

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 in virtual campus or via e-mail.

Your assessment is necessary for us to improve.

Thank you very much for your participation.