

## 1. BASIC INFORMATION

<b>Course</b>	Introduction to health clinics
<b>Degree program</b>	Dentistry Degree
<b>School</b>	Faculty of Health Sciences
<b>Year</b>	First
<b>ECTS</b>	6 ECTS (150 horas)
<b>Credit type</b>	Compulsory
<b>Language(s)</b>	Spanish and English
<b>Delivery mode</b>	Campus base mode
<b>Semester</b>	Semester
<b>Academic year</b>	2020-21
<b>Coordinating professor</b>	Alberto Albero Monteagudo

## 2. PRESENTATION

Through the subject "Introduction to health clinics" the student will achieve to:

- Become familiar with the concepts of Instrumentation, Equipment and Ergonomics.
- Become familiar with the terminology used in the field of different areas of Dentistry, besides the area of dental biomaterials.
- Become familiar with the general behaviour of dental biomaterials, manual and rotary instruments for their manipulation.
- Know the risks in the dental office and the techniques for a proper disinfection and sterilization of the dental instruments.
- Know the specific dental equipment: basic dental unit, devices that are necessary for its operation, functional appliances and specific equipment.
- Know the different parts of a dental office and be able to design one.
- Know the general equipment that a dental office requires.
- Know and train in working positions, both instrumental manipulation, transfer and optimal working position for dental treatment.

-Know the diseases associated with the exercise of our profession and try to remedy them or know their treatment.

-Acquire knowledge related to research, literature research and structure of scientific papers.

Contextualizing competencies of the subject within the module and the degree.

Knowing the facilities required for the proper functioning of the profession, giving to the students enough information to know how to develop their work, both in relation to its development as a business where they can design their offices, distribute clinical and non-clinical areas, use dental equipment and the necessary equipment for diagnosis and dental treatment, as well as acquiring a degree of manual training both with manual and rotary instruments. The creation of a work habit around the dental equipment that, will allow the student avoiding future occupational diseases for themselves and also learn how not to harm the patient, creating barrier systems, disinfecting and sterilizing properly.

### 3. COMPETENCIES AND LEARNING OUTCOMES

Basic competencies:

- BC1: : Students should demonstrate to acquire knowledge and understanding in a field of study that comes from the basis of general secondary education, and is typically at a level which, although it is supported by advanced textbooks, includes some aspects involving knowledge of the forefront of their field of study.
- BC2: Students should apply their knowledge to their work or vocation in a professional manner and have competences typically demonstrated through devising and sustaining arguments and solving problems within their field of study.
- BC4: Students should communicate information, ideas, problems and solutions to both specialist and non-specialist audiences.
- BC5: Students should develop those skills needed to undertake further studies with a high degree of autonomy.

General competencies:

- GC1: Knowthe essential elements of the dentist profession, including ethical principles and legal responsibilities.

- GC13: Ability to understand and recognize the sciences of essential biomaterials for dental practice, as well as the immediate management of possible allergies to them.
- GC17: Ability to understand recognize the principles of ergonomics and safety at work (including cross-infection control, radiation protection and occupational and biological diseases).
- GC3: Ability to know how to identify the patient's concerns and expectations, as well as to communicate effectively and clearly, both orally and in writing, with patients, family members, the media and other professionals.
- GC7: Ability to promote autonomous learning of new knowledge and techniques as well as motivation for quality.
- GC8: Ability to know how to share information with other health professionals and work as a team.

Cross-curricular competencies:

- CC1: Responsibility: the student should be able to assume the consequences of the actions taken and accountable for their own actions.
- CC3: Awareness of ethical values: the student capacity should be able to feel, judge, argue and act according to moral values consistent, persistent and autonomously.
- CC7: Teamwork: students should be able to participate actively in achieving a common goal, listening, respecting and valuing the ideas and proposals of the other members of his team.
- CC9: Planning: the student should be able to effectively determine his goals and priorities defining the actions, deadlines, and optimal resources required to achieve these goals.
- CC10: Innovation-Creativity: the student should be able to devise new and different solutions to problems that add value to problems faced.

Specific competencies:

- CE11: To handle, discriminate and select the appropriate materials and instruments in dentistry.
- CE12: To know the dental biomaterials: their manipulation, properties, indications, allergies, bio-compatibility, toxicity, waste disposal and environmental impact.
- CE14: To know and use the basic equipment and instrumentation for dental practice.
- CE15: Apply the principles of ergonomics in dental work, both individually and within the work team when appropriate, as well as in the principles of prevention of occupational risks associated with dental practice.

Learning outcomes:

- LO1: Understand basic dental terminology.
- LO2: Apply most common dental nomenclature.
- LO3: Understand the importance of dental decay, as the dental disease which causes more dental loss.
- LO4: Understand the importance of periodontal disease, as the surrounding dental disease which causes more dental loss.
- LO5: Distinguish different types of treatment that aim to preserve teeth in their dental arches.
- LO6: Differentiate the most common dental equipments.
- LO7: Distinguish the most common dental instruments, both clinical and laboratory ones.
- LO8: Identify and prevent physical, chemical, biological and physic risks derived from the actions in dentistry.
- LO9: Understand and apply measures and means to prevent risks in the dental office.
- LO10: Understand the main principles and values derived from ergonomics applied to dentistry.
- LO11: Understand and apply the B.H.O.P positions when working both preclinic and in the lab.
- LO12: Create ergonomic working habits and prevent working diseases and accidents.
- LO13: Know the best positions to work in different parts of the dental arch.

- LO14: Stimulate and ease the work with the health team.

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

Competencies	Learning outcomes
BC1,BC2,BC4,BC5 GC1,GC3,GC7,GC8,GC13,GC17,CC1,CC3,CC7,CC9,CC10,CC11, CC12,CC14,CC15,	LO1,LO2,LO3, LO4, LO5,LO6,LO7,LO8,LO9,LO10,LO11,LO12, LO13,LO14
EC11,EC12	LO5, LO6, LO7,LO8, LO9
EC14, EC15	LO10,LO11,LO12,LO13,LO14

## 4. CONTENT

- 1.- Introduction to the matter.
  - 1.1. General operating norms
  - 1.2. Terminology and general clinical concepts
  - 1.3. Basic dental nomenclature
    - 1.4. Basic communication norms in Dentistry
- 2.- General introduction to dental decay
  - 2.1. Etiopathogenesis
  - 2.2. Prevention, diagnosis
- 3.- General introduction to periodontal disease
  - 3.1. Etiopathogenesis
  - 3.2. Prevention, diagnosis
- 4.- Introduction to the main rehabilitation procedures in dentistry
  - 4.1. Concept and definitions in conservative dentistry
  - 4.2. Concept and definitions in treatments to replace teeth
- 5.- Basic clinical instruments
  - 5.1. Types of dental instruments
  - 5.2. Instruments for dental exploring
  - 5.3. Instruments for dental fillings
  - 5.4. Instruments for endodontics
  - 5.5. Instruments for surgery
  - 5.6. Instruments for periodontics

- 5.7. Instruments for dental impressions
- 5.8. Rotary instruments
  
- 6.- Clinical equipment
  - 6.1. Dental chair
  - 6.2. Instrument carrier units (instruments attached to energy sources)
  - 6.3. Classification and types
  - 6.4. Other clinical equipment of interest
  
- 7.- Dental lab concept
  - 7.1. Classification and types
  - 7.2. Working place in the dental lab
- 7.3. Basic instruments
  
- 7.4. Basic equipment
  
  
- 8. Introduction to risks and their prevention in the dental office
  - 8.1. Physical risks in the dental office
  - 8.2. Chemical risks in the dental office
  - 8.3. Biological risks in the dental office
  - 8.4 Psychological risks in the dental office
  - 8.5 Protection barriers
  
- 9.- Hygiene chain – disinfection and sterilization of the dental instruments in the dental office
  - 9.1. Hygiene chain – disinfection of the equipment and furniture in the dental office
  
- 10. Introduction to risks and their prevention in the dental lab
  - 10.1. Physical risks in the dental lab
  - 10.2. Chemical risks in the dental lab
  - 10.3. Biological risks in the dental lab
  - 10.4 Protection barriers
  
- 11.- Treatment of the waste generated during the dental work
  - 11.1 Treatment of the clinical waste
  - 11.2. Treatment of the lab waste
  
- 12.- Introduction to ergonomics in dentistry
  - 12.1. Concept and definitions
  - 12.2. Historical evolution
  - 12.3. Ergonomics applied onto dentistry
  
- 13.- Introduction to working positions in dentistry
  - 13.1. Standing position for the clinician. Advantages and disadvantages
  - 13.2. Sitting position for the clinician. Advantages and disadvantages
  - 13.3 Position of the patients
  - 13.4. Ergonomic working position (BHOP) for clinician and patient
  - 13.5. Working areas in the dental office
  - 13.6 Main working positions to work on a patient

14.- Introduction to the planning and standarization of dental procedures

- 14.1. Common characteristics to dental procedures
- 14.2. Direct procedures
- 14.3. Indirect procedures in the clinical office and in the dental lab

15.- Team work in the dental office I

- 15.1. Dental health team
- 15.2. Roles for: the clinician, the assistant, the dental hygienist, lab technician

16. Team work in the dental office II

- 16.1. Four hands work
- 16.2. Six hand work

## 5. TEACHING-LEARNING METHODOLOGIES

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

- Master class
- Cooperative learning
- Learning based on projects
- Simulation environments

## 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:**

Type of educational activity	Number of hours
Master class	45 h
Problems resolution	25 h
Practical exercises	15 h
Lab practices	50 h
Tutorial	15 h
<b>TOTAL</b>	<b>150 h</b>

## 7. ASSESSMENT

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

Assessable activity	Weight (%)
<i>Theoretical knowledge test</i>	30%
<i>Pre-clinical simulated practices</i>	35%
<i>Oral presentations</i>	10%
<i>Practical exercises</i>	10%
<i>Practical workbook</i>	15%

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.

The evaluation of this course consists of two parts, a theoretical part (which occupies 30% of the final grade), a practical part (70% of the final grade). To pass the subject, IT IS MANDATORY TO OVERCOME EACH PART independently (grade equal or greater than 5 POINTS out of a total of 10 points for each part).

According to the Rules of Assessment of the European University and in order that our students achieve the knowledge and skills, class attendance is very important. In line with this regulation, it is stated in terms of attendance to Introduction to Health Clinics **theoretical sessions**, that there will be a minimum attendance of 50%, so as to be able to overcome theory in the ordinary period. Regarding the **practical activities**, there is a minimum of attendance of 90%, so as to be able to overcome practical activities in the ordinary period. In addition to class attendance students are reminded of the need for attendance record, at the corresponding devices offered by university. These systems will also serve to ensure objective information on the student's active role in the classroom

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 retake this part in the extraordinary period. If absences occur in practical activities, the student will fail in the ordinary period having to perform the resit in the extraordinary period. It is the responsibility of the student to go to the responsible teacher to indicate how to recover these absences in order to pass the subject in the extraordinary session. The way to recovery the absences will be the preparation of a written work of 10 pages size 11 for each lack of attendance of more in the theoretical or practical sessions. The teacher will indicate the subject, how to do it and when to deliver it.

### **Theoretical part (30%):**

- One theoretical assessment (20%) will be performed at the end of the semester. There will be an objective test of the theoretical knowledge. The schedule of this test is established from the beginning of the course in the calendar and will be for all equally.

These knowledge test consists of 10 short questions. If the student does not overcome the test, it will be recovered in the resit, being the grade published in the ordinary call as failed. In the case that the student does not overcome the test in the resit (grade equal or greater than



5 points out of 10 points), the whole subject "Introduction to health clinics" will be failed and there will be no possibility to average with any of the other tests and/or activities that conform the subject. In the case of not being able to attend the test, the subject will be failed in the ordinary call except for the cases contemplated by the University in the CRITERIA FOR THE MODIFICATION OF DATES OF ASSESSMENT TESTS that appear in its regulations.

- Oral presentations (10%): it's a group project that consists of the review of articles in English. A grade of 5 points out of 10 points is the minimum in the oral presentation to overcome the whole subject Introduction to health clinic. If not, the student will need to retake the presentation in the extraordinary call.

The evaluation of the activity will be carried out considering four differential elements:

- Individual work: 25% (Rubric 1)
- Group work: 25% (Rubric 2)
- Classroom presentation: 25% (Rubric 3)
- Group memory: 25% (Rubric 4)

- Attendance to theoretical lessons is mandatory. The student has to reach attendance to 50% of the theoretical sessions. Failure to attend more than 50% theoretical lessons will mean that, the theoretical continuous assessment will not succeed and the student will need to recover in the resit (extraordinary call). It is the responsibility of the student to go to the responsible teacher to indicate how to recover these absences in order to pass the subject in the extraordinary session. The way to recovery the absences will be the preparation of a written work of 10 pages size 11 for each lack of attendance of more in the theoretical or practical sessions. The teacher will indicate the subject, how to do it and when to deliver it.

#### **Practical part (70%):**

- Objective test of practical knowledge (10%): there will be a written test of short questions about the contents seen in the practical part. It is necessary to pass this test with a grade greater than or equal to 5 out of 10 points to overcome the practical part.

- Simulated pre-clinical practices (35%): the work done in each practice during the semester by the student will be assessed, which will correspond to the continuous evaluation of practical sessions. The grade is obtained as a weighted average between the different practices (depending on the content that evaluates each of them). If this average is less than 5 points out of 10 points, the practical part shall be failed.

- Practical exercises (10%): on the day of the test of practical knowledge the student will present all the work developed during the course for assessment.

-Practical workbook (15%): it will be the student's obligation to take it daily to practice and can be evaluated in any practice that the teacher requests. It must be delivered on the day of the practical test for final assessment.

Attendance to practical lessons is mandatory. The student has to reach attendance to 90% of the practical sessions. Failure to attend more than 90% practical lessons will mean that, the practical continuous assessment will not succeed and the student will need to recover in the resit (extraordinary call).

### 7.1. First exam period

To pass the course in the first exam period, you must obtain a final course grade of at least 5 out of 10 (weighted average).

In any case, you will need to obtain a grade of at 5.0 in the final exam in order for it to count towards the final grade along with all the grades corresponding to the other activities.

### 7.2. Second exam period

To pass the course in the second exam period, you must obtain a final grade of at least 5 out of 10 (weighted average).

In any case, you will need to obtain a grade of at 5.0 in the final exam in order for it to count towards the final grade along with all the grades corresponding to the other activities.

The student must deliver the activities not successfully completed in the first exam period after having received the corresponding corrections from the professor, or those that were not delivered in the first place.

## 8. SCHEDULE

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

Assessable activities	Deadline
Theoretical assessment	Pending planning
Simulated preclinical practice	Each group in its assigned schedule
Oral presentation	First delivery: pending planning Second delivery: pending planning
Practical exercises	Pending planning
Practice workbook	Pending planning

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

Here is the indispensable recommended bibliography:

- Camps Alemany, I., & Pascual Moscardó , A. (2014). **Cuaderno de Biomateriales Odontológicos, Equipamiento, Instrumentación y Ergonomía**. Valencia: Ed. Pasión por los libros.

Here is the complementary recommended bibliography:

- Anusavice, K. (2008). **Phillips. Ciencia de los Materiales Dentales**. Madrid: Elsevier.11ª edición.
- Bartolomucci Boyd, L,R. (2017). **Dental instruments: a pocket guide**. St. Louis, Miss: Saunders. 6<sup>th</sup> edition.
- Bartolomucci Boyd, L, R. & Tello Rodríguez , A, I.(2009). **Instrumental odontológico: guía práctica**. Amsterdam; Barcelona: Elsevier. 3ª edición.
- Brenna, F. (2012). **Restorative dentistry: treatment procedures andfuture prospects**. St. Louis, Mo: Elsevier/Mosby.
- Burdarion , G. (1991). **Manual de Biomateriales Dentarios**. París: Ed. Masson.
- Cameron, A., & Widmer , R. (2008). **Handbook of pediatricdentistry**. Edinburgh New York: Mosby. 3th edition.
- Cohen , S., & Hargreaves , K. (2016). **Cohen vías de la pulpa**. Barcelona: Elsevier. 11ª edición.
- Cova, J.L. (2010). *Biomateriales Dentales*. Venezuela: Ed. Amolca. 2ª edición.
- Donaire Rodríguez-Rey , L., & Domínguez Navarro , J. (2016).

- **Conservadora, periodoncia, cirugía e implantes.** Madrid: Síntesis.
- Fejerskov, O. (2008). **Dental caries: the disease and its clinical management.** Oxford Ames, Iowa: Blackwell Munksgaard. 2<sup>nd</sup> edition.
- Hagiwara, Y. (2013). **Color atlas of fixed prosthodontics.** Tokyo: QuintessencePublishing.
- Hargreaves , K., Cohen , S., & Berman , L. (2011). **Cohen’s pathways of the pulp.** St. Louis (Missouri): Mosby Elsevier.
- Hargreaves , K., Goodis , H., Tay , F., & Seltzer, S. (2012). **Seltzer and Bender’s dental pulp.** Hanover Park, IL: Quintessence. 2nd edition.
- Jimenez-Planas, A. (2007). **Diccionario de Materiales Odontológicos.** Sevilla: Universidad de Sevilla, Secretariado de Publicaciones.
- Jones , J., & García, L. (2009). **Removable partial dentures: a clinician’s guide.** Ames, Iowa: Wiley-Blackwell.
- Koch , G., & Poulsen , S. (2009). **Pediatric dentistry : a clinical approach.** Chichester, UK Ames, Iowa: Wiley- Blackwell. 2<sup>nd</sup> edition.
- Lindhe , J., Lang, N., & Karring , T. (2015). **Clinical periodontology and implant dentistry.** Chichester, West Sussex; Ames, Iowa: John Wiley and Sons, Inc. 6<sup>th</sup> edition.
- Lindhe, J. (2017). **Periodontología clínica e implantología odontológica.** Buenos Aires: Médica Panamericana. 6<sup>a</sup> edición.
- Pinkham, J. (2005). **Pediatric dentistry: infancy through adolescence.** St. Louis, Mo: Elsevier Saunders. 4<sup>th</sup> edition.
- Rahn , A., Ivanhoe , J., & Plummer , K. (2009). **Dentistry & Oral Sciences Source: Textbook of Complete Dentures.** PMPH USA. 6<sup>TH</sup> edition.
- Robinson , D., Debbie, S., & Bird, D. (2013). **Essentials of dental assisting.** St. Louis, Mo: Elsevier Saunders. 5<sup>th</sup> editon.

- Rosenstiel , S., Land , M., & Fujimoto , J. (2017). **Prótesis fija contemporánea**. Barcelona: Elsevier. 5ª edición.
- Rosenstiel , S., Land , M., & Fujimoto , J. (2016). **Contemporary fixed prosthodontics**. St. Louis, Mo: Mosby Elsevier. 5<sup>th</sup> edition.
- Scully, C. (2014). **Medical problems in dentistry**. Edinburgh: Churchill Livingstone. 7<sup>th</sup> edition.
- Shillingburg, H. (2006). **Fundamentos esenciales en prótesis fija**. Barcelona: Quintessence. 3ª edición.
- Shillingburg, H., & Sather , D. (2012). **Fundamentals of fixed prosthodontics**. Chicago: Quintessence Publishing. 4th edition.
- Toledano, M. (2003). **Arte y ciencia de los Materiales Odontológicos**. Madrid: Avances Médico-Dentales, D.L.
- Vega del Barrio, J. M. (1996). **Materiales en Odontología: Fundamentos Biológicos, clínicos, biofísicos y físico-químicos**. Madrid: Avances Médico-Dentales. 1ª edición.
- Zarb , G., & George , A. (2013). **Prosthodontic treatment for edentulous patients: Complete dentures and implant-supported prostheses**. St. Louis, Mo: Elsevier Mosby. 13<sup>th</sup> 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](mailto: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.