



## Information about the subject

**Degree:** Bachelor of Science Degree in Dentistry

**Faculty:** Faculty of Medicine and Health Sciences

**Code:** 480306 **Name:** Pathology and Dental Therapeutics I

**Credits:** 6,00 **ECTS Year:** 3 **Semester:** 1

**Module:** Module 4: Dental Pathology and Therapeutics

**Subject Matter:** DENTAL THERAPY **Type:** Compulsory

**Field of knowledge:** Health Sciences

**Department:** Dentistry

**Type of learning:** Classroom-based learning

**Languages in which it is taught:** English, Spanish

### Lecturer/-s:

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## Module organization

### Module 4: Dental Pathology and Therapeutics

Subject Matter	ECTS	Subject	ECTS	Year/semester
DENTAL THERAPY	66,00	Cosmetic Dentistry	6,00	4/2
		Orthodontics I	6,00	3/2
		Orthodontics II	6,00	4/1
		Paediatric Dentistry I	6,00	4/1
		Paediatric Dentistry II	6,00	4/2
		Pathology and Dental Therapeutics I	6,00	3/1
		Pathology and Dental Therapeutics II	6,00	3/2
		Pathology and Dental Therapeutics III	6,00	4/1
		Prosthodontics I	6,00	3/1
		Prosthodontics II	6,00	3/2
		Prosthodontics III	6,00	4/1
DENTAL PATHOLOGY	60,00	Dental Traumatology	6,00	5/1
		Dentistry in Special Patients	6,00	4/2
		Emergencies in Dentistry	6,00	5/2
		Legal and Forensic Dentistry	6,00	5/1



## DENTAL PATHOLOGY

Oral Medicine	6,00	3/1
Oral Surgery I	6,00	4/1
Oral Surgery II - Implantology	6,00	5/2
Pathology of the Temporo-Mandibular Joint and Orofacial Pain	6,00	4/2
Periodontics I	6,00	3/2
Periodontics II	6,00	4/2



## Learning outcomes

At the end of the course, the student must be able to prove that he/she has acquired the following learning outcomes:

- R1 The student is able to obtain and elaborate a clinical history.
- R2 Knows how to carry out an intra and extraoral clinical examination.
- R3 Understands non-cariogenic dental pathology.
- R4 Knows of cariogenic dental pathology.
- R5 Knows manual and rotary instruments used in dental therapy.
- R6 Knows the isolation of the operating field.
- R7 Knows cavity design and preparation.
- R8 Knows the use and application of dental restoration materials.
- R9 Proves knowledge and prevention of iatrogeny in dental therapy.
- R10 The student proves to be competent at performing caries removal or other treatments that aim to eliminate caries using techniques that preserve pulp viability.
- R11 The student proves to be competent in evaluating and treating non-caryogenic dental pathology.
- R12 The student proves to be competent in making a correct diagnosis.
- R13 The student proves to be competent in recognizing the complexity of reconstructing a tooth with a large destruction.
- R14 Knows the instruments to use in the restoration of teeth with great destruction of their crown.



## Competencies

Depending on the learning outcomes, the competencies to which the subject contributes are (please score from 1 to 4, being 4 the highest score):

GENERAL	Weighting			
	1	2	3	4
CG1 I aCapacity for analysis and synthesis			X	
CG2 I bOrganizational and planning skills				X
SPECIFIC	Weighting			
	1	2	3	4
CE A 7 Promote autonomous learning of new knowledge and techniques, as well as motivation for quality.				X
CE A 9 Understand the importance of maintaining and using records with patient information for subsequent analysis, preserving the confidentiality of the data.			X	
CE C 2 Knowing how to perform a complete oral examination, including the appropriate radiographic and complementary examination tests, as well as obtaining appropriate clinical references.				X
CE C 2 Be able to make an initial diagnostic judgement and establish a reasoned diagnostic strategy, being competent in the recognition of situations requiring urgent dental care.				X
CE D 2 Know and apply the basic treatment of the most common oral pathology in patients of all ages. Therapeutic procedures should be based on the concept of minimum invasion and on a global and integrated approach to oral treatment.			X	
CE D 2 Know how to plan and carry out multidisciplinary, sequential and integrated dental treatments of limited complexity in patients of all ages and conditions and patients requiring special care.			X	
CE D 2 Plan and propose the appropriate preventive measures for each clinical situation.			X	



CE D 2 Acquire clinical experience under proper supervision.

X

CE E 3 Recognise the role of the dentist in actions to prevent and protect against oral diseases, as well as in the maintenance and promotion of health, both at individual and community level.

X

## TRANSVERSAL

## Weighting

1 2 3 4

1. a. Analysis and synthesis skills

X

1. b. Organizational and planning capacity

X

1. c. Oral and written communication in the native language.

X

1. d. Knowledge of a foreign language

X

1. e. Computer skills

X

1. f. Information management capacity

X

1. g. Problem solving

X

1. h. Decision making

X

2. i. Teamwork

X

2. j. Multidisciplinary teamwork

X

2. k. Work in an international context

X

2. l. Interpersonal skills

X

2. m. Recognition of diversity and multiculturalism

X

2. n. Critical Reasoning

X

2. o. Ethical commitment

X





## Assessment system for the acquisition of competencies and grading system

Assessed learning outcomes	Granted percentage	Assessment method
R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12	25,00%	OPEN QUESTIONS: Written exam in which basic theory knowledge and the ability to relate, integrate and coherently express it in writing is assessed.
R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12	25,00%	MULTIPLE CHOICE TEST: Multiple choice test with one correct answer. This shows to greater extent the contents acquired by the student.
R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12	25,00%	PRACTICAL: Written test in which the student is asked to solve practical exercises, clinical cases or problems about the contents of different subjects.
R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12	25,00%	PRACTICAL EXAM: The student carries out a test in which he/she must show by means of practical application the acquisition of certain knowledge. For example, histological or anatomopathological diagnoses, interpretation of images or diagnostic tests.

### Observations

It is necessary to obtain at least a grade of 5 in practices to be able to sit the exam. If two practices are missed, the student must appear directly for the second call. If three or more practices are missed, the student will have to retake the subject the next year. The student has the obligation to comply with the regulations of the UCV clinics, both in the laboratory and in the office. Failure to comply with said regulations will mean exclusion from the practice with the consequent failure to comply. Those suspended from previous calls (SP group) will have their internship grade saved if they have been approved.

For every 5 unanswered or incorrect questions, 1 correct question will be deducted.

Of the 4 parts that the exam consists of in PTD II (Practices, Theory test, Practical test and Short questions), it is necessary to get a 5 or more in the average grade to pass PTD II. If you obtain between 4 and 5 in any part of the exam (Theoretical Test, Practical Test and Short Questions), the average will be taken for the overall grade. In this situation, if you have a 5 or higher on the overall score, you will pass the PTD II. If you have less than 5 in the same situation, you will not pass the PTD II.

If you have less than 4 in any part of the exam (Theoretical Test, Practical Test and Short Questions), you will go directly to the 2nd call and repeat all parts of the exam (Theoretical Test,





Practical Test and Short Questions).

#### CRITERIA FOR GRANTING HONORABLE REGISTRATION:

According to article 22 of the Regulatory Regulations for the Evaluation and Qualification of the UCV Subjects, the mention of "Honors" may be awarded by the professor responsible for the subject to students who have obtained the grade of "Outstanding". The number of "Honors" mentions that can be awarded may not exceed five percent of the students included in the same official record, unless this is less than 20, in which case a single register with Honors will be granted.

#### MENTION OF DISTINCTION:

In accordance with the regulations governing the assessment and grading of subjects in force at UCV, the distinction of "Matrícula de Honor" (Honours with Distinction) may be awarded to students who have achieved a grade of 9.0 or higher. The number of "Matrículas de Honor" (Honours with Distinction) may not exceed five percent of the students enrolled in the group for the corresponding academic year, unless the number of enrolled students is fewer than 20, in which case a single "Matrícula de Honor" (Honours with Distinction) may be awarded. Exceptionally, these distinctions may be assigned globally across different groups of the same subject. Nevertheless, the total number of distinctions awarded will be the same as if they were assigned by group, but they may be distributed among all students based on a common criterion, regardless of the group to which they belong. The criteria for awarding "Matrícula de Honor" (Honours with Distinction) will be determined according to the guidelines stipulated by the professor responsible for the course, as detailed in the "Observations" section of the evaluation system in the course guide.

## Learning activities

The following methodologies will be used so that the students can achieve the learning outcomes of the subject:

- |    |   |
|----|---|
| M1 | Lecture.<br>Problem Solving.<br>Explanation of contents by the teacher.<br>Explanation of knowledge and skills.               |
| M2 | Practical basic sciences laboratory sessions, practical simulation laboratory sessions, virtual hospital and dissecting room. |
| M3 | Problem and case solving.<br>Social action activities.  |
| M4 | Group work with research, discussion and filtering information about the degree subjects.                                     |



- M6 Discussion and problem solving.
- M8 Oral presentations by students.
- M9 Group work: group work sessions supervised by the teacher.  
Knowledge building through interaction and activity of students.
- M10 Carrying out bibliographic reviews and practical work experience dissertations.
- M11 Practical in-person classes in clinics linked to the university, where the student will carry out different treatments under direct supervision from the assigned tutor.
- M12 Seminars, supervised monographic classes with shared participation.
- M13 Personal preparation of written texts, essays, problem solving, seminars.
- M15 Personalised Attention. Period of instruction and/or guidance carried out by a tutor with the aim of analysing with the student his/her work, activities and evolution in learning of subjects.



## IN-CLASS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
THEORY CLASS M1	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12	14,00	0,56
SEMINAR M1, M3, M8	R1, R2, R3, R4, R5, R6, R7, R9, R10, R11, R12	18,00	0,72
TUTORING M1, M2, M3, M4	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12	2,00	0,08
EVALUATION M2	R1, R3, R4	2,00	0,08
PRACTICAL CLASS M2	R1, R2, R5, R6, R7, R8, R10, R12	24,00	0,96
<b>TOTAL</b>		<b>60,00</b>	<b>2,40</b>

## LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
INDIVIDUAL WORK M6, M10, M13	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12	90,00	3,60
<b>TOTAL</b>		<b>90,00</b>	<b>3,60</b>



## Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

Content block	Contents
Practices	<p>Review of the instrumental, rotary and burs manual used in dental therapeutics.</p> <p>Preparation of work models in PTD.</p> <p>Review of work models. Isolation of the operating field.</p> <p>Cavitory preparation for composites. Classes I, II, and V.</p> <p>Cavitory preparation for composites. Classes I, II, and V.</p> <p>Cavitory preparation for composites. Classes III and IV.</p> <p>Cavitory preparation for composites. Classes III and IV.</p> <p>Filling of cavities. Finishing and polishing.</p>



## Classes

1. Introduction to Dental Pathology and Therapeutics I.
2. Dental history and clinical examination. VICT  
Review of manual and rotary instruments and burs used in dental therapeutics.
3. Dental dysplasias. Concept and classification.
4. Manual, rotary instruments and burs used in dental therapeutics. Use and clinical applications.  
Review of manual and rotary instruments and burs used in dental therapeutics.
5. General considerations in cavitory preparation.
6. Cavitory preparation for composites. Classes I, II, III, IV and V  
Preparation of work models in PTD.
7. Atypical cavities.
8. Obturation. Matrix, bands and wedges. Contact point  
Preparation of work models in PTD.
9. Filling with composite resins. Finishing and polishing techniques.
10. Non-cariogenic destructive processes of dental tissues.  
Review of work models. Isolation of the operating field.
11. Enamel and dentin caries. Biofilm concept
12. Adhesion.  
Review of work models. Isolation of the operating field.
13. Dental anomalies. Concept and classification
14. Anesthetic techniques in dental surgery and endodontics

## Seminars

Diagnosis. Aspects prior to dental surgery.  
Importance of isolation of the operating field. Theoretical aspects.  
Pulp dentine protection.  
Practical aspects of class I and V cavity preparation.  
Practical aspects of class II cavity preparation.  
Practical aspects of the preparation of class III and IV cavities.  
Practical aspects of filling, finishing and polishing.  
Review images for practical exam

## Evaluation hours

Evaluation of the different parameters of the subject:  
-Open questions  
-Test exam of 50 questions  
-Practical test  
-Evaluation of practices



## Temporary organization of learning:

Block of content	Number of sessions	Hours
Practices	12,00	24,00
Classes	7,00	14,00
Seminars	10,00	20,00
Evaluation hours	1,00	2,00

## References

- 1.Garcia Barbero, J. (2015) Patología y Terapéutica Dental 2a edición. Editorial Elsevier.
- 2.Sturdevant C. (2008) Operatoria Dental. 3a edición. Editorial Mosby
- 3.Baratieri, L.N. (2011)Odontología Restauradora.Fundamentos y Técnicas. Editorial Santos
- 4.Brena,F (2011). Odontología Restauradora. Editorial Elsevier
- 5.Torabinejad, M. (2010). Endodoncia. Principios y Práctica. 4a edición Editorial Elsevier
- 6.Canalda, C. (2019) Endodoncia: técnicas y bases científicas. 4a edición. Editorial Elsevier
- 7.Cohen, S. (2022) Vías de la Pulpa. 12º edición. Editorial Elsevier