



Information about the subject

Degree: Bachelor of Science Degree in Dentistry

Faculty: Faculty of Medicine and Health Sciences

Code: 480504 **Name:** Legal and Forensic Dentistry

Credits: 6,00 **ECTS Year:** 5 **Semester:** 1

Module: Module 4: Dental Pathology and Therapeutics

Subject Matter: DENTAL PATHOLOGY **Type:** Compulsory

Field of knowledge: Health Sciences

Department: Biostatistics, Epidemiology, and Public Health

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

Recommended knowledge

General knowledge about legal and forensic dentistry.

To know the different areas where the dentist can assist in a forensic procedure and DVI (dissaster victim identification).

Basic concepts about legal dentistry applied in the daily practice

Professional relationship in between dentist-patient based on their duties and wrights.

Research and data management

Team work and ethics, applicability in the daily practice



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 Searches for information in bibliographic sources and knows how to analyze them.
- R2 Makes an adequate clinical history.
- R3 Knows the different parts of the physical examination of the patients.
- R4 The student is capable of making a diagnostic judgement based on the data from the anamnesis and examination.
- R5 The student is capable of optimizing the use of diagnostic and therapeutic resources.
- R6 Knows about clinical exploration and periodontogram.
- R7 Knows and identifies the periodontal structures at a radiological level.
- R8 Knows about the exploration of periodontal tissues and preparation of a periodontogram, a specific card with the periodontal records necessary for a correct diagnosis and evaluation of the evolution of the disease.
- R9 Knows how to make clear and relevant medical records and conduct thorough clinical examinations to identify the patient who is amenable to implant treatment.
- R10 The student is able to complete a complete clinical history and make a full clinical judgment.
- R11 The student is able to transmit knowledge in a precise and correct way.
- R12 Knows the general structure of the practical aspects of the dental profession
- R13 Searches for information in different places and analyses it with a constructive critical sense.
- R14 The student is able to work in a team.



- R15 Proves the theoretical knowledge about possible medical emergencies that can occur in the dental office.
- R16 Manages the organization, design and structure of a scientific communication.
- R17 Knows the profession by putting the patient first.
- R18 Shows ability to recognise the error and desire to correct it.
- R19 Shows ability to analyze and interpret legal texts related to dentistry.
- R20 Demonstrates ability to write a correct clinical history, in which the data is presented clearly and completely.
- R21 Demonstrates ability to convey to the patient all the possibilities of treatment, regardless of the economic cost, leaving the patient free to choose.
- R22 Demonstrates ability to draw up a clear and concise informed consent.
- R23 Demonstrates ability to participate in identification tasks if necessary, through the knowledge and application of different forensic techniques.
- R24 Shows concern for the investigation.
- R25 The student is able to write an expert report in an objective manner, without seeking one's own benefit, and to assist the justice system.
- R26 Demonstrates ability to recognize where the boundaries of the dental profession lie.
- R27 Demonstrates ability to recognize that the patient's doubts and concerns are important.
- R28 Demonstrates ability to act according to ethical standards in the face of any possible lawsuit.
- R29 Demonstrates ability to distinguish between accidental and voluntary trauma within the dental field.
- R30 Demonstrates ability to recognize the effects of toxins in the oral cavity



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 2iObtain and prepare a medical history containing all relevant information.				X
CE C 2Knowing 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 2Be 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 C 2Establish the diagnosis, prognosis and adequate therapeutic planning in all clinical areas of dentistry, being competent in the diagnosis, prognosis and elaboration of the dental treatment plan of the patient requiring special care, including medically compromised patients (such as diabetics, hypertensive, immunosuppressed, anticoagulated, among others) and patients with disabilities.				X
CE C 2Recognize life-threatening situations and know how to perform basic life support maneuvers.				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
3. p.	Autonomous learning				X
3. q.	Adaptation to new situations				X
3. r.	Creativity				X
3. s.	Leadership				X
3. t.	Knowledge of other cultures and customs				X
3. u.	Initiative and entrepreneurship			X	
3. v.	Motivation for quality				X
3. w.	Sensitivity to environmental and socio-health issues			X	



Assessment system for the acquisition of competencies and grading system

Assessed learning outcomes	Granted percentage	Assessment method
	0,00%	OPEN QUESTIONS: Written exam in which basic theory knowledge and the ability to relate, integrate and coherently express it in writing is assessed.
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R2	65,00%	MULTIPLE CHOICE TEST: Multiple choice test with one correct answer. This shows to greater extent the contents acquired by the student.
	0,00%	ORAL TEST: Oral exam in which the student answers the questions the teacher asks, verbally explaining the contents acquired, allowing for interaction with the teacher.
R2, R4	10,00%	PRESENTATION: The student develops by means of an oral presentation, supported with audio-visual materials, a theme or topic given by the teacher. At the end of the presentation, the teacher or audience may ask questions.
R1, R2, R14, R17, R18, R19, R20, R21, R22, R23, R26	5,00%	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, R14, R17, R18, R19, R20, R21, R22, R23, R26	0,00%	PRACTICAL: Written test in which the student is asked to solve practical exercises, clinical cases or problems about the contents of different subjects.
R22, R25, R30	5,00%	ASSIGNMENTS: The student, ether individually or in a group, develops a theme which reviews or researches, and he/she presents it, in writing, for assessment by the teacher.



R14	5,00%	CLASS PARTICIPATION: The teacher assesses the participation, involvement and progress the student makes in acquiring knowledge and skills in theory and practical classes and seminars. This is never more than 5% of the final grade.
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R1, R2, R16, R17, R18, R19, R20, R21, R22, R23, R25, R26, R27, R28, R29, R30	10,00%	SIMULATIONS, OSCES: Through simulations, real-life situations are reproduced in standardised conditions, which enable the teacher to analyse the clinical skills of the student in specific situations. Computer simulations or standardised simulated illnesses are used. The test known as OSCE (Objective Structured Clinical Examination) may also be used. The OSCE consists of students going around a circuit of sequential stops where they are asked to carry out a variety of different skills and techniques.
R1, R2, R16, R17, R18, R19, R20, R21, R22, R23, R25, R26, R27, R28, R29, R30	0,00%	SIMULATIONS, OSCES: Through simulations, real-life situations are reproduced in standardised conditions, which enable the teacher to analyse the clinical skills of the student in specific situations. Computer simulations or standardised simulated illnesses are used. The test known as OSCE (Objective Structured Clinical Examination) may also be used. The OSCE consists of students going around a circuit of sequential stops where they are asked to carry out a variety of different skills and techniques.
	0,00%	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.



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Observations

The exam will consist on 40 MCQ test, with 4 options.

It will be necessary to get a 6 on the exam to pass it.

4 wrong questions will cancel a correct one.

Seminars are compulsory.

The oral presentations are compulsory and will need to be showed in the classroom to be valid.

The attendance to the seminars and the proper presentation is compulsory to be able to attend the exam.

You can only miss the 10% of the seminars to attend to the first call of the exam. In case of not being able to attend the seminars due to a medical reason it will need to be justified 7 days in advanced and with a medical certificate or 15 days after the absence.

In case of missing 20% of the seminars you would need to wait to the second call to attend the exam.

Missing more than 20% of the seminars means that you won't be able to attend the exam neither the first or second call and you will fail the subject straight away.

-In case of a non justified absence, the student will miss the option of attending the first call. The only chance to pass the subject will be to attend to the second call and pass the exam.

-In case of a justified absence the student can attend the first call and the second call of the exam if the seminar has been sent and the professor has confirmed so.

-The non presenciality can only be justified as per the Estatutos UCV.

-Exemptions will be assessed individually

The grades will not be kept for the following year.

Compulsory Oral presentation about a free topic related to LF dentistry

In case of failing the MCQ test the student will repeat the seminars and oral presentation. Grades will not be kept for the following year.

Both theoretical and practical areas will need a minimum grade of 5 each one to pass the whole subject.

Presenciality: 5% of your final grade. The fact of not attending at 1 or more lessons means you loose the benefit of that 5% to your final grade.

The student needs to address the oral competencies needed to attend patients in clinics.



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.
Problem Solving.
Explanation of contents by the teacher.
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.
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	R4, R5	30,00	1,20
SEMINAR M4	R17, R18, R19, R20, R21, R22, R23	10,00	0,40
EVALUATION M12	R14	2,00	0,08
PRACTICAL CLASS M4, M12, M13	R17	20,00	0,80
TOTAL		62,00	2,48

LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
INDIVIDUAL WORK M4	R17, R18	73,00	2,92
GROUP WORK M4, M6, M8	R11, R12, R13	15,00	0,60
TOTAL		88,00	3,52



Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

Content block	Contents
I.	<p>Lesson 1. Introduction to legal and forensic medicine. Legal and forensic dentistry.</p> <p>Lesson 2. Legal dentistry. Definition, concepts and goals. History.</p> <p>Lesson 3. Forensic dentistry. Definition, concepts and goals. History.</p> <p>Lesson 4. Brief introduction to law.</p> <p>Lesson 5. How to open a dental practice.</p> <p>Lesson 6. Colleagues who work with the dentist. Legal competencies.</p>



- II.
- Lesson 7.
Legal and illegal act.
- Lesson 8.
Ethics in dentistry nowadays. Patients rights and duties.
Dentist rights and duties.
Dentist-patient relationship.
- Lesson 9.
Legal documents in dentistry. Clinical history.
- Lesson 10.
Consent form, concept and characteristics. History.
Exceptions.
- Lesson 11.
Other medico-legal documents.
- III.
- Lesson 12.
Professional secrecy.
- Lesson 13.
Data protection.
- Lesson 14.
Professional responsibility.
- Lesson 15.
Prescription.



IV.

Lesson 16.
Thanatology.

Lesson 17.
Witness report, introduction.

Lesson 18.
Witness report: parts and relevance in dentistry.

Lesson 19.
Forensic anthropology. Concept, competencies and
historical evolution.

Lesson 20
Body identification

Lesson 21
Dead Body identification.



V.

Lesson 22

Dentist's duty in a body identification.

Lesson 23.

Conclusions in a dental identification.

Lesson 24

Features in the soft and hard tissues related with a body identification

Lesson 25

Dental prosthesis, x-rays and oral restorations. Implication in a body identification.

Lesson 26

Bite marks

Lesson 27

Craniometry and dentometry

Lesson 28

Sexual dimorphism.

Lesson 29

Age estimation

Lesson 30

Photography in forensic dentistry

Lesson 31

Rugoscopy and queiloscopy.

Lesson 32

DNA research and applicability in body identification.



- VI.
- Lesson 33
Dental damage assessment.
- Lesson 34
Child protection and the dentist's role.
- Lesson 35
Toxicology.
- Lesson 36.
Mass fatality events. Investigation and forensic dentist's role.

Temporary organization of learning:

Block of content	Number of sessions	Hours
I.	4,00	8,00
II.	5,00	10,00
III.	4,00	8,00
IV.	5,00	10,00
V.	9,00	18,00
VI.	4,00	8,00



References

BOE

British Dental Association BDA

Pubmed

Gisbert JA. Medicina Legal y Toxicología. Parte IV. Cap. XXXII. 4ta edición. Ediciones Científicas y Técnicas S.A. Masson-Salvat Medicina.1992. pág. 321-31

A. Castaño, J. Doldan. Manual de Introducción a la Odontología. 1ªEdición. Madrid. Autor-Editor. 2005

Eneko Barbería. Catástrofes: Identificación De Víctimas Y Otros Aspectos Médico-Forenses: Aspectos teórico-prácticos. 1ªEdición. Elsevier. 2015

Mónica Costales. Odontología Legal y Forense. 1ªEdición. Formación Alcalá, s.l. 2023.

Fonseca GM, Kasprzak J. About the Polish contributions to lip print identification and the need for synergy in forensic research. Forensic Sci Int Synerg. 2024 Feb 15;8:100461. doi:

10.1016/j.fsisyn.2024.100461. PMID: 38425694; PMCID: PMC10901748.

Cappella A, Solazzo R, Mazzarelli D, Gibelli D, Dolci C, Sforza C, Cattaneo C. The potential of facial nevi in personal identification. Sci Rep. 2024 Mar 14;14(1):6206. doi:

10.1038/s41598-024-56847-z. PMID: 38485806; PMCID: PMC10940291.



Addendum to the Course Guide of the Subject

Due to the exceptional situation caused by the health crisis of the COVID-19 and taking into account the security measures related to the development of the educational activity in the Higher Education Institution teaching area, the following changes have been made in the guide of the subject to ensure that Students achieve their learning outcomes of the Subject.

Situation 1: Teaching without limited capacity (when the number of enrolled students is lower than the allowed capacity in classroom, according to the security measures taken).

In this case, no changes are made in the guide of the subject.

Situation 2: Teaching with limited capacity (when the number of enrolled students is higher than the allowed capacity in classroom, according to the security measures taken).

In this case, the following changes are made:

1. Educational Activities of Onsite Work:

All the foreseen activities to be developed in the classroom as indicated in this field of the guide of the subject will be made through a simultaneous teaching method combining onsite teaching in the classroom and synchronous online teaching. Students will be able to attend classes onsite or to attend them online through the telematic tools provided by the university (videoconferences). In any case, students who attend classes onsite and who attend them by videoconference will rotate periodically.

In the particular case of this subject, these videoconferences will be made through:

Microsoft Teams

Kaltura



Situation 3: Confinement due to a new State of Alarm.

In this case, the following changes are made:

1. Educational Activities of Onsite Work:

All the foreseen activities to be developed in the classroom as indicated in this field of the guide of the subject, as well as the group and personalized tutoring, will be done with the telematic tools provided by the University, through:

Microsoft Teams

Kaltura

Explanation about the practical sessions:



2. System for Assessing the Acquisition of the competences and Assessment System

ONSITE WORK

Regarding the Assessment Tools:

The Assessment Tools will not be modified. If onsite assessment is not possible, it will be done online through the UCVnet Campus.

The following changes will be made to adapt the subject's assessment to the online teaching.

Course guide		Adaptation	
Assessment tool	Allocated percentage	Description of the suggested changes	Platform to be used

The other Assessment Tools will not be modified with regards to what is indicated in the Course Guide.

Comments to the Assessment System: