



Course: Forensic dentistry

Course Coordinator: Sonja Pezelj-Ribarić

Course Collaborators:

Department: Oral medicine

Study program: University Integrated Undergraduate and Graduate Study of Dental Medicine
(in English)

Study year: 4th

Academic year: 2023./24.

SYLLABUS

Course description (a brief description of the course, general instructions, where and in what form the lessons are organized, necessary equipment, instructions for attendance and preparation for classes, student obligations, etc.):

Forensic dentistry is a regular one-semester course in the dental school curriculum that is taught in the fourth year of the integrated undergraduate and graduate dental curriculum. Teaching in forensic dentistry is 15 teaching hours of lecture and 15 teaching hours of practise (1.5 ECTS). The theoretical part of the lecture serves as an introduction to the presentation of forensic teaching cases, and the practical part is carried out in exercises.

Students will be introduced to the basic procedures of human body identification based on natural and acquired dental characteristics; getting acquainted with the impact of the law on practical work in dentistry (in the Republic of Croatia); isolation of DNA from dental tissues; analysis of human bites on victims and possible identification of perpetrators; classification of injuries to the stomatognathic system for the purpose of expert opinions on compensation for damages; pointing out the mistakes made by dentists that can lead to endangering the health of our patients.

In this course, students will learn the techniques of dental identification of the human body or parts of the human body, that is, the importance of the performance and quality of dental medical documentation to obtain identity. New techniques such as analysis of DNA from dental tissues and PCR technique in forensics are also important. Students will learn to evaluate and classify injuries to the stomatognathic system to support the legislation of the Republic of Croatia.

Students will learn the forensic skills necessary to work independently in dental clinics. Proper management of dental documentation.

Assigned reading:

1.Brkić H.TEXTBOOK OF FORENSIC ODONTO-STOMATOLOGY BY IOFO. Naklada Slap 2021.



COURSE TEACHING PLAN:

The list of lectures (with topics and descriptions):

L1-L3. Introductory remarks, history of forensic dentistry in Croatia and in the world. Dental identification: procedures, preparation of instruments and analysis. Documentation of dental and oral medicine.

Learning outcomes

Explanation of the history of forensic dentistry in Croatia and in the world, identification of dental procedures, instrumentation, keeping dental and oral medicine documentation.

L4-L8. Identification in mass casualty cases, organization of identification team. Determination of age at time of death and determination of time of death by dental procedures. Determination of sex and race.

Comparison of ante-mortem and post-mortem dental characteristics. DNA analysis of dental tissues for human body identification

Learning Outcomes

Explain mass casualty identification.

Determine age at time of death, race, and sex. Explain the analysis of DNA from dental tissues to identify the human body.

L8-L11. Inherited and acquired changes in teeth important for human body identification. Analysis of the bite on the victim's body and identification of the perpetrator. Negligence of the dentist.

Learning Outcomes.

Explain and describe the congenital and acquired changes in teeth that are important in identifying the human body.

Explain the method of analyzing bite wounds on the victim's body and identifying the perpetrator

L12-L15. Expert opinion in dentistry. Application of criminal law to the doctor of dentistry.

Classification of injuries of the stomatognathic system

Learning Outcomes.

Classification of injuries of the stomatognathic system.

Identify cases of dental expert opinion.

The list of practicals with descriptions:

The exercises of the Forensic Dentistry course are conducted at the Faculty of Dentistry. Before participating in the exercises, students must acquire theoretical knowledge.

P1-P2 Reading Dental Status Learning Outcomes: Assessment of dental status, KEP index

P3-P4 Ante-mortem dental findings Learning outcomes: Analysis of ante-mortem dental findings

P5-P6 Post-mortem dental findings Learning outcomes: Analysis of post-mortem dental findings

P7-P8 Evaluation of tooth age

Learning outcomes:

assessment and commentary of tooth age

P9-P10 Expertise in dentistry

Learning outcomes:

comment on and analyze examples of dental expertise

P11 Inherited and acquired dental changes in the identification of human remains

Learning Outcomes:



observe, comment on, and distinguish between congenital and acquired dental changes in the identification of human remains

P12 Determine sex and race using dental and craniofacial characteristics

Learning Outcomes:

determine sex and race using dental and craniofacial characteristics

P13 Determine age at death and time of death using dental techniques

Learning Outcomes:

identify and comment on age at death and determination of time of death through dental techniques

P14-P15 Analyze bite injuries to the human body and identify the perpetrator

Learning Outcomes:

analyze the bite on the human body and identify the perpetrator

Students' obligations:

Students are required to attend class regularly and actively participate in all forms of instruction.

Assessment (exams, description of written / oral / practical exam, the scoring criteria):

ECTS Assessment System:

Student grading is conducted according to the current University of Rijeka Studies and studying regulation. Students' work is evaluated and assessed during the course and in the final examination.

Students are graded according to the ECTS (A-F) and the numerical system (1-5). Grading according to the ECTS system is done by absolute distribution.

Of the maximum 70 points that can be obtained in class, the student must obtain at least 35 points to be eligible to take the final exam. Students who have less than 50% grade points during the course must re-enrol in the course.

The student earns grade points through active participation in class, completion of assigned tasks, and participation in midterm exams as follows:

I. During the course, the following performances will be evaluated (maximum 70 points):

(a) compulsory colloquium (up to 40 points)

b) Exercise activity (up to 30 points)

A student may miss 30% of the lectures exclusively for health reasons, which must be justified by a medical certificate and an excuse. Attendance of lectures and exercises is compulsory. Compensation for exercises is possible after prior consultation with the director.

If a student misses more than 30% of the classes, excused or unexcused, he/she will not be able to continue the course and will lose the possibility to take the final exam. In this case, he/she will receive 0 ECTS points and will be graded F. Mandatory Colloquium (up to 40 points) During the courses, all students must complete a colloquium, for which they receive a maximum of 40 points. A student may receive a minimum of 20 points for passing the colloquium. If the student scores less than 20 points, he/she may write a correction of the colloquium. During the exercises, the instructor evaluates the acquired knowledge and skills of each student in the following way: Average grade for each exercise (5-1) Overall average grade for all exercises Number of evaluation points 5 4.5- 5 30 4 3.5- 4.49 25 3 2.50- 3.49 20 2 2-



2.49 15 1 0- 1.99 0 Final exam (30 points): Who can take the final exam: students who have scored more than 35 points in class must take the final exam, where they can score a maximum of 30 points. The final exam is an oral exam. It is scored out of 30 points. Success on the final oral exam will be converted to grade points as follows: Grade Grade Points Unsatisfactory 0 Sufficient 15 Good 20 Very Good 25 Excellent 30 In order to pass the final exam and the final evaluation (including the addition of grade points previously earned in class), a student must receive a passing grade on the final exam and earn at least 15 grade points (50%). Grading in the ECTS system is based on the absolute distribution, i.e., on the basis of final performance: A – 90-100 grade points B – 75-89.9 grade points C – 60-74.9 grade points D – 50-59.9 grade points F – 0-49.9 grade points The numerical grading system is compared to the ECTS system as follows: Grades in the ECTS system are converted to the numerical system as follows:

A – excellent (5),
B – very good (4),
C – good (3),
D – sufficient (2).
F – insufficient (1)

Other important information regarding to the course:

Any use of another's text or other form of an author's work, as well as the use of ChatGPT or any other tool whose functionality is based on artificial intelligence technology, without clear and unambiguous acknowledgement of the source, will be considered a violation of another's copyright and of the principle of academic integrity, and will constitute a serious violation of student responsibilities that will result in disciplinary responsibility and appropriate disciplinary action

Student Disciplinary Responsibility Policy.

Office hours: every day

COURSE SCHEDULE (for the academic year 2023/2024)

Date	Lectures (time and place)	Seminars (time and place)	Practicals (time and place)	Instructor
13.11.2023	L1-L3		P1-P5	Sonja Pezelj-Ribarić, PhD, Professor
	8-10.15		14-17.45	
	online		Krešimirova 40	
4.12.2023.	L4-L6			Sonja Pezelj-Ribarić, PhD, Professor
	8-10.15			
	online			
7.12.2023			P6-P10	Sonja Pezelj-Ribarić, PhD, Professor



			14-17.45	
			Krešimirova 40	
14.12.2023			P6-P10	Sonja Pezelj-Ribarić, PhD, Professor
			14-17.45	
			Krešimirova 40	

List of lectures, seminars and practicals:

	LECTURES (Topics)	Teaching hours	Location/Lecture room
L1	Introductory remarks, history of forensic dentistry in Croatia and in the world.	1	online
L2	Dental identification: procedures, preparation of instruments and analysis.	1	online
L3	Documentation of dental and oral medicine.	1	online
L4	Identification in mass casualty cases, organization of identification team.	1	online
L5	Determination of age at time of death and determination of time of death by dental procedures.	1	online
L6	Determination of sex and race.	1	online
L7	Comparison of ante-mortem and post-mortem dental characteristics.	1	online
L8	DNA analysis of dental tissues for human body identification	1	online
L9	Inherited and acquired changes in teeth important for human body identification.	1	online
L10	Analysis of the bite on the victim's body and identification of the perpetrator. Negligence of the dentist.	1	Krešimirova 40
L11	Expert opinion in dentistry.	1	Krešimirova 40
L12	Application of criminal law to the doctor of dentistry.	1	Krešimirova 40
L13	Classification of injuries of the stomatognathic system	1	Krešimirova 40
L14	Classification of injuries of the stomatognathic system	1	Krešimirova 40
L15	Classification of injuries of the stomatognathic system	1	Krešimirova 40



	TOTAL TEACHING HOURS		
--	-----------------------------	--	--

	PRACTICALS (Topics)	Teaching hours	Location/Lecture room
P1-P2	Reading Dental Status	1	Krešimirova 40
P3-P4	Ante-mortem dental findings	2	Krešimirova 40
P5-P6	Post-mortem dental findings	2	Krešimirova 40
P7-P8	Evaluation of tooth age	2	Krešimirova 40
P9-P10	Expertise in dentistry	2	Krešimirova 40
P11	Inherited and acquired dental changes in the identification of human remains	1	Krešimirova 40
P12	Determine sex and race using dental and craniofacial characteristics	1	Krešimirova 40
P13	Determine age at death and time of death using dental techniques	1	Krešimirova 40
P14-P15	Analyze bite injuries to the human body and identify the perpetrator	1	Krešimirova 40
	TOTAL TEACHING HOURS	15	

	FINAL EXAM DATES
1.	14.12.22023
2.	6.2.2024.
3.	3.9.2023

	Lectures	Seminars	Practicals	Total
Total number	15		15	30
On-line	9			
Percentage	30			