Sveučilište u Rijeci
University of Rijeka

Sveučilište u Rijeci • Fakultet dentalne medicine
University of Rijeka • Faculty of Dental Medicine
Krešimirova 40/42 • 51000 Rijeka • CROATIA
Phone : + 385 51 559 200; 559 202, 559 203

Course: Forensic dentristry
Course Coordinator: Sonja Pezelj-Ribarić, PhD, Professor
Course Collaborators:

Department:
Study program: University Integrated Undergraduate and Graduate Study of Dental Medicine (in English)
Study year:
Academic year: 2024/2025

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 purposeof 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. Naklda Slap 2021.

Optional/additional reading:

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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.
Determinationof 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 reenrol 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

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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 author's work, as well as the use of ChatGPT or any
of another tool whose functionality is based on artificial intelligence technology, without clear and unambiguous citation of sources, is considered a violation of someone else's copyright and the principle of academic integrity and represents
serious violation of student obligations, which entails disciplinary responsibility and disciplinary measures accordingly Rulebook on disciplinary responsibility of students.

Consultation time:

COURSE SCHEDULE (for the academic year 2024/2025)

Date	Lectures (time and place)	Seminars (time and place)	Practicals (time and place)	Instructor
2.12.2024.	L1-2 (9.30-11)		P1-P2 (9.30-11)	Sonja Pezelj-Ribarić, PhD, Professor

9.1.2.2024.	L3-L5 (17-19.15)		P3-P54 (9.30-11)	Sonja Pezelj-Ribarić, PhD, Professor
16.12.2024.	L6-L8 (17-19.15)		P5-P6 (9.30-11) **P7-P10 (17-19.15)**	Sonja Pezelj-Ribarić, PhD, Professor
13.1.2025	L79-L11 (17-19.15)		P11-S13 (17-19.15)	Sonja Pezelj-Ribarić, PhD, Professor
20.1.2025.	L12 -L15 (17-20)		**P14-P15 (9.30-11)**	Sonja Pezelj-Ribarić, PhD, Professor

List of lectures, seminars and practicals:

	LECTURES (Topics)	Teaching hours	Location/Lecture room
1	Introductory remarks, history of forensic dentistry in Croatia and in the world.	1	
2	Dental identification: procedures, instrument preparation and analysis	1	
3	Dental-oral medical documentation	1	
4	Identification in mass casualty cases, organization of the identification team	1	
5	Determination of age and time of death by dental techniques	1	
6	Determination of gender and ethnicity	1	
7	Comparison of ante-mortem and post-mortem dental characteristics	1	
8	DNA analysis of dental tissues in the identification of the human body	1	
9	Inherited and acquired changes in the teeth that are important for the identification of the human body	1	
10	Analysis of bite wounds on the victim's body and identification of the perpetrator	1	

11	Negligence of the dentist	1	
12	Dental expertise	1	
13	Expert opinions in dentistry	1	
14	Application of criminal law to the doctor of dentistry	1	
15	Classification of injuries to the stomatognathic system	1	
	TOTAL TEACHING HOURS	**15**	

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

	FINAL EXAM DATES
1.	
2.	
3.	

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	Lectures	**Seminars**	**Practicals**	**Total**
Total number				
On-line				
Percentage				