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: Orofacial genetics
Course Coordinator: Danko Bakarčić, DDM, PhD, professor
Course Collaborators: /
Department: Pediatric dentistry
Study program: University Integrated Undergraduate and Graduate Study of Dental Medicine (in English)
Study year: 4
Academic year: 2024./25.

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.):

Acquiring the knowledge necessary for prevention, diagnosis and treatment of genetic disorders. Students need to learn to determine the genetic component in the etiology of the disease for the purpose of diagnosis, prognosis and rational approach to treatment. Part of the course is conducted in the form of lectures in e-form - lectures are available through the Merlin system for the entire duration of the semester, and consultations are carried out in agreement with the head of the course. The estimated duration of the course is one semester. By completing all teaching activities and taking the final exam, the student gains 1.5 ECTS points.
To be evaluated for the overall final grade the student:
• is required to attend all sessions
• must successfully pass the final exam

Assigned reading:

Škrinjarić I. Orofacijalna genetika. Školska knjiga, Zagreb, 2006.

Optional/additional reading:

Vidya Ajila, Subhas Babu, Harini K. Orofacial genetics. Lambert Academic Publishing, 2013

Škrinjarić I. Genetičke abnormalnosti zuba i orofacijalnih struktura. U: Zergollern Lj. (ur): Medicinska genetika I. Školska knjiga Zagreb, 1991.

Škrinjarić I. Genetski činioci u etiologiji (mentalnih bolesti).U:Nikolić i sur.:Mentalni poremećaji u djece i omladine, Školska knjiga, Zagreb, 1988.

Škrinjarić I.,Nikolić S.,Genetski aspekti mentalnih poremećaja. U:Nikolić S. i sur.:Mentalni poremećaji u djece i omladine II, Školska knjiga, Zagreb, 1990.

Škrinjarić I. Dermatoglifi u medicinskoj genetici. U: Zergollern Lj. (ur.): Medicinska genetika I. Školska knjiga, Zagreb, 1991.

COURSE TEACHING PLAN:

The list of lectures (with topics and descriptions):

The history and significance of orofacial genetics.
Epidemiology of craniofacial malformations and frequency of genetic diseases in the population.
Anomalies of craniofacial structures (minor and major anomalies).
Genes and chromosomes as the bearers of inheritance (normal and abnormal structures).
Methods in genetics: family analysis, population studies, twins, chromosomes, dermatoglyphes.
Review and evaluation of the craniofacial region with anomalies of craniofacial structures.
Genetic anomalies of the teeth, anomalies of the: number, shape, size and structure of the teeth. T
The most frequent chromosomal syndromes that affect the orofacial structures (Down, fragile X, Klinefelter, Turner syndrome).
Ectodermal dysplasia: classification, diagnosis and detection of heterozygotes.
Metabolic disorders and craniofacial structures (mucopolysaccharidosys, mucoilipidosys, Homocystinuria, Lesch-Nyhan syndrome).
Genetic disorders of periodontal structures.
Neurocutaneous syndromes and oforacial structures.
Cleft lip and palate and syndromes with cleft (Rovin sequences, EEC syndrome, Vander-Woude Syndrome).
Genetic counseling in dental medicine.

The list of seminars with descriptions:

The list of practicals with descriptions:

Students' obligations:

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Students are obliged to regularly attend and actively participate in all forms of classes.
Maximum absences of up to 30% of classes with written justification and compensation.

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

Student evaluation is carried out according to the valid **Pravilnik o studijima Sveučilišta u Rijeci**.

All forms of teaching are scored, the maximum score is 100.

Students' work will be evaluated in the final exam. A student can achieve 100 points in the final exam
Students are graded using the ECTS (A-F) and numerical system (1-5). Grading in the ECTS system is carried out by absolute distribution.

In order for a student to be evaluated with a final grade, he must successfully pass the final exam. The exam threshold for the final exam is 50% of the successfully completed exam. If he does not pass the final exam, he will receive a negative grade overall.
Students who achieve a total of less than 49.9 grades (F grade category) must re-enroll in the course.

Final Score:

0- 49,9 = F
50- 59,9 = D - 2
60- 74,9 = C - 2
75- 89,9 = B - 3
90-100 = A - 5

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 to “Pravilnik o stegovnoj odgovornosti studenata (Rulebook on disciplinary responsibility of students)”.
Consultation time: Thursdays at 8:00 a.m. with mandatory prior notice at least one day before.

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COURSE SCHEDULE (for the academic year 2024/2025)

Date	Lectures (time and place)	Seminars (time and place)	Practicals (time and place)	Instructor
2.10.2024.	P1,P2 (17:45-19:15) onsite			Prof.prim.dr.sc. Danko Bakarčić, dr.med.dent.
9.10.2024.	P3,P4 (17:45-19:15) onsite			Prof.prim.dr.sc. Danko Bakarčić, dr.med.dent.
16.10.2024.	P5,P6 (17:45-19:15) onsite			Prof.prim.dr.sc. Danko Bakarčić, dr.med.dent.
23.10.2024.	P7,P8 (17:45-19:15) onsite			Prof.prim.dr.sc. Danko Bakarčić, dr.med.dent.
30.10.2024.	P9,P10 (17:45-19:15) onsite			Prof.prim.dr.sc. Danko Bakarčić, dr.med.dent.
6.11.2024.	P11,P12 (17:45-19:15) onsite			Prof.prim.dr.sc. Danko Bakarčić, dr.med.dent.
13.11.2024.	P13,P14 (17:45-19:15) online			Prof.prim.dr.sc. Danko Bakarčić, dr.med.dent.
20.11.2024.	P15,P16 (17:45-19:15) online			Prof.prim.dr.sc. Danko Bakarčić, dr.med.dent.
27.11.2024.	P17,18(17:45-19:15) online			Prof.prim.dr.sc. Danko Bakarčić, dr.med.dent.
4.12.2024.	P19,P20(17:45-19:15) online			Prof.prim.dr.sc. Danko Bakarčić, dr.med.dent.

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List of lectures, seminars and practicals:

	LECTURES (Topics)	Teaching hours	Location/Lecture room
P1	The history and significance of orofacial genetics	1	lecture room Kreš. 42
P2	Epidemiology of craniofacial malformations and frequency of genetic diseases in the population	1	lecture room Kreš. 42
P3	Examination and evaluation of the craniofacial region with anomalies of craniofacial structures	1	lecture room Kreš. 42
P4	Methods in genetics: family analysis, population studies, twins, chromosomes, dermatoglyphes.	1	lecture room Kreš. 42
P5	Genetic counseling in dental medicine.	1	lecture room Kreš. 42
P6	Sindroms and sindroms with s orodental anomalies	1	lecture room Kreš. 42
P7	Anomalies of craniofacial structures (minor and major anomalies).	1	lecture room Kreš. 42
P8	Genetic anomalies of the teeth, anomalies of the: number and size of the teeth	1	lecture room Kreš. 42
P9	Genetic anomalies of the teeth, anomalies of the teeth shape and structure	1	lecture room Kreš. 42
P10	Symptomatology of the orofacial region in growth disorders	1	lecture room Kreš. 42
P11	Symptomatology in the most frequent syndromes of various genesis with manifestations in the area of the orofacial region	1	lecture room Kreš. 42
P12	The most common chromosomal syndromes that affect the oropharyngeal structures: Down syndrome	1	lecture room Kreš. 42
P13	The most common chromosomal syndromes that affect the oropharyngeal structures: fragile x, Klinefelter, Turner syndrome	1	online
P14	Ectodermal displasias	1	online
P15	Metabolic disorders and craniofacial structures (mucopolysaccharidosys, mucoilipidosys)	1	online
P16	Metabolic disorders and craniofacial structures (Homocystinuria, Lesch-Nyhan syndrome).	1	online
P17	Genetic disorders of periodontal structures.	1	online
P18	Cleft lip and palate	1	online

P19	Cleft lip and palate and syndromes with cleft (Rovin sequences, EEC syndrome, Vander-Woude Syndrome).	1	online
P20	Recombinations in which we encounter syndromes with orodental anomalies	1	online
	Ukupan broj sati predavanja	20	

	SEMINARS (Topics)	Teaching hours	Location/Lecture room
	TOTAL TEACHING HOURS		

	PRACTICALS (Topics)	Teaching hours	Location/Lecture room
	TOTAL TEACHING HOURS		

	FINAL EXAM DATES
1.	7.2.2025.
2.	21.2.2025.
3.	13.6.2025.
4.	5.9.2024.

	Lectures	Seminars	Practicals	Total
Total number	20	-	-	20
On-line	8	-	-	8
Percentage	40	-	-	40