Sveučilište u Rijeci • Fakultet dentalne medicine
University of Rijeka • Faculty of Dental Medicine

Course: Tooth morphology with dental anthropology

Course Coordinator: Prof.prim.Nataša Ivančić Jokić,PhD,DDM
Department: Department of Paediatric dentistry
Study program: Integrated Undergraduate and Graduate University Study of Dental Medicine
Study year: 2 year
Academic year: 2021/2022

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.):

This course unites and studies anatomical and morphological details of all teeth of primary and permanent dentition, it also studies their mutual connection and connection of other anatomical structures inside the oral cavity, also known as orofacial system. Other than morphological details it also includes physiological role of teeth, jaw and oral cavity as an entrance to digestive system. Phylogenetic development of teeth, dental tissues and tooth integument is also being studied as a part of dental anthropology.

During the lectures students are going to be introduced to anatomical classification of oral cavity and soft tissues, teeth and bones along with their role in phonation (pronunciation of sounds), mastication (chewing), digestion and deglutation of food (swallowing food) and physionomy of the face. Students will learn about dental nomenclature and marking surfaces of some teeth. Anatomy of teeth and histology of dental tissues are making the main part of theoretical and practical lectures. They will be introduced to morphology of teeth and dental arches of primary and permanent dentition, they'll also learn about characteristcs of upper and lower incisors, canines, premolars and molars; orientational surfaces and curves in oral cavity and face, and connection between teeth in physiological contact (occlusion, articulation); group of muscles that are participating in opening and closing of the mouth; parts of jaw articulation and basic movements of mandibula in three dimension. Teeth anomalies (anomalies in number, shape, structure, dental lining, teething) and intermaxillary connections; phylogenetic development of teeth and jaw; basic characteristics of protohuman from Krapina with special review about teeth and theories about origin of teeth along with basic terms about animal teeth will be talked about during one part of lectures in dental anthropology.

This course is made of lectures and preclinical practice. Lectures are being held on Merlin, the system for e-learning. Practicals are being held in preclinical practice room at Study of dental medicine on the third floor in Krešimirova 42.
During manual practice students will have to draw and make (out of plasticine, gypsum or similar mass) teeth for the purpose of better understanding the morphological shapes of teeth by functional groups.

Student must have accessories consisting of: a graph paper, a pencil, a dental carving knife, soap and clay.

More detailed information on accessories will be provided by the assistants in the introductory exercises.

Assigned reading:

Nelson SJ. Wheeler's Dental Anatomy, Physiology, & Occlusion. Tenth edition. Elsevier Saunders 2015
Rashmi GS. Textbook of Dental Anatomy, Physiology & Occlusion. Jaypee 2014

Optional/additional reading:

Fehrenbach MJ, Popowics T. Illustrated Dental Embyology, Histology, and Anatomy. 4th edition. Elsevier Saunders 2016

COURSE TEACHING PLAN:

The list of lectures (with topics and descriptions):

L1 Term and importance of dental morphology, Methods of work in dental morphology
Outcomes of learning:
Define dental morphology and methods of work in dental morphology.

L2 Topographic- anatomical marks on teeth
Outcomes of learning:
Describe and differentiate topographic- anatomical marks that are being used in everyday orientation and work on teeth.

L3 Nomenclature and areas in dental morphology, orientational surfaces in mouth.

Outcomes of learning:

Describe and differentiate names that are used for orientational surfaces on teeth and for orientation inside oral cavity.

L4 Surfaces, edges and angles on crown of tooth
Outcomes of learning:
Describe morphological characteristcs of every part of tooth.

L5 Anatomical characteristic of teeth
Outcomes of learning:
Describe anatomical characteristics of every part of tooth.

L6 Morphological- anatomical characteristics of anterior teeth, morphological-anatomical characteristics of posterior teeth.

Outcomes of learning:

Describe anatomical characteristics of every part of tooth.

L7 Morphology of upper and lower dental row.
Outcomes of learning:
Describe and define the lining of individual teeth and their relation to each other in dental arch.

L8 Occlusion and types of occlusal positions
Outcomes of learning:
Describe relations between superior and inferior dental arch.

L9 Anatomy of oral cavity
Outcomes of learning:
Describe all anatomical structures of oral cavity, bones and cranial muscles.

L10 Physiology of oral cavity
Outcomes of learning:
Describe and explain physiological processes that happen inside oral cavity.

L11 Stomatognathic system, Binomial

Outcomes of learning:
Describe and explain relations between teeth, occlusion and temporomandibular joint.

L12 Motions of mandibule, Occlusal motions

Outcomes of learning:

Explain the motions of mandibule and influence on interocclusal relations.

L13 Dental anthropology
Outcomes of learning:
Define terms and importance of dental anthropology.

L14 Theories about origin of teeth
Outcomes of learning:
Describe the theories about origin of teeth through evolutionary processes.

L15 Hominids
Outcomes of learning:
Describe development of stomatognathic system through evolution of human.

Lectures are put on system for e-learning MERLIN.

The list of practicals with descriptions:

On practicals students are introduced to morphological characteristcs of teeth through modeling and drawing of all teeth and they are gaining the knowledge that is necessary for recognition of all teeth in oral cavity. Moreover, they are developing motor skills necessary for further continuation of their work in other preclinical and clinical practice that are being held at the Faculty of dental medicine.

Students' obligations:

All forms of lectures are mandatory and a presence check of students during the lectures and practicals will be carried out accordingly. Absences are justified only because of illness or similar reason and that whitin limits permitted by Study regulations. Student has actively take part in all form of lectures.

Exam (exam taking, detailed exam description of the oral/written/practical part, point distribution, grading criteria):

Student assessment is carried out according to the current Regulations on Studies of the University of Rijeka.

According to the regulations on the evaluation the student must achieve at least 50% of points during the class to be able to access the final exam.
This paper evaluates the students during classes and final exam.

Practicals:
Evaluated will be: theoretical knowledge about the topic of each exercise , precision, shape (3D in modulation), neatness, shape of tooth's surface and topographic-anatomical marks on sketches or modeled teeth
1- no theoretical background, very imprecise, messy, sketch or model doesn't match the shape of given tooth
2-sufficient theoretical background, imprecise, somewhat neat, shapes and contour of given tooth are recognizable
3-good theoretical background, precise, neat, shapes and contour of given tooth are well recognized
4- very good theoretical background, very precise and neat, shapes and contour of given tooth are very well recognized
5- excellent theoretical background, extremally precise and neat work, shapes and contour of given tooth are extremally well recognized

If there is a discrepancy between the grades from theoretical knowledge and final work (modeling, drawing) on practicals, average of two grades is taken.

Evaluation points are given according to final average grade from all practicals .
2 → 5 points
2,5 → 8 points
3 → 10 points
3,5 →13 points
4 → 16 points
4,5 → 18 points
5 →20 points

Recognition of teeth:
9 native human teeth
Assessed at 4 terms, each with 0.5 points
(0-0,5-1-1,5-2)
a) The Latin name of the tooth
b) The Croatian name of the tooth
c) Designation of teeth in two ways the FDI-Zsigmondy Lautrou-Palmer
d) A description of a given tooth
9 points minimum; 9-11 sufficient; 12-13 good, 14-15 very good; 16-18 excellent

Latin names:
40 Latin name morphological anatomical details thatread with 4 photos;
1 exact name carries 0.2 points,
total points 8
4 points minimum;
enough 4-5, 6 good, 7 very good, 8 excellent

Colloquium: The morphology of teeth:
The test consists of 24 questions with one or more correct answers. Each correctly solved question carries 1 point. Incomplete or incorrect answers are not recognized. To pass the colloquium, 50% of the test solution is required.

Final written exame:
30 questions from lectures and recommended literature.
Score points are obtained by multiplying the percentage of resolution by a weight of 0.3. To pass the exam, 50% resolution is required.
If a student does not pass the final test the course will be negative. The student has the right to take the next exam term.
If the student during the teaching is not collected the minimum number of access points for the final exam will be negatively evaluated and must re-enter and take and pass the course.

Students are assessed using ECTS and the number system.

Final grade:
The final grade is the sum of points achieved during the semester and final exam.
Final grade:
0-49,9 % unsufficient 1 F
50-59,9% sufficient 2 D
60-74,9% good 3C
75-89,9% very good 4 B
90-100% excelent 5 A

Other important information regarding to the course:

The introductory lecture will be held according to the schedule, while other lectures will be set on the e-learning system MERLIN as part of the e-course.

COURSE SCHEDULE (for academic year 2021/2022)

Date	Lectures (time and place)	Seminars (time and place)	Practicals (time and place)	Instructor
01.10.2021	L 1 -6 8.00-14.00 Krešimirova 42/III			Prof.prim.Nataša Ivančić Jokić
04.10.2021		Pon 6	P1-2 8.00-12.30	Odri Cicvarić, DDM Elvis Božac, DDM
05.10.2021		Ut 4	P3-4 13.15-16.15	Odri Cicvarić, DDM Prof.prim.Nataša Ivančić Jokić
06.10.2021		Sri 4	P5-6 13.15-16.15	Odri Cicvarić, DDM Prof.prim.Nataša Ivančić Jokić
07.10.2021	L 7-12 8.00-14.00 Krešimirova 42/III			Prof.prim.Nataša Ivančić Jokić
08.10.2021		Pet 6	P7-8 8.00-12.30	Odri Cicvarić, DDM Elvis Božac, DDM
11.10.2021		Pon 6	P9-10 8.00-12.30	Odri Cicvarić, DDM Elvis Božac, DDM
12.10.2021		Ut 4	P11-12 13.15-16.15	Odri Cicvarić, DDM Elvis Božac, DDM Prof.prim.Nataša Ivančić Jokić
13.10.2021		Sri 4	P13-14 13.15-16.15	Odri Cicvarić, DDM Prof.prim.Nataša Ivančić Jokić
14.10.2021	L 13-18 8.00-14.00 Krešimirova 42/III			Prof.prim.Nataša Ivančić Jokić
15.10.2021		Pet 6	P15-16 8.00-12.30	Odri Cicvarić, DDM Elvis Božac, DDM
18.10.2021		Pon 6	P17-18 8.00-12.30	Odri Cicvarić, DDM Elvis Božac, DDM
19.10.2021		Ut 4	P19-20 13.15-16.15	Odri Cicvarić, DDM Prof.prim.Nataša Ivančić Jokić
20.10.2021		Sri 4	P21-22 13.15-16.15	Odri Cicvarić, DDM Prof.prim.Nataša Ivančić Jokić
21.10.2021	L 19-24 8.00-14.00 Krešimirova 42/III			Prof.prim.Nataša Ivančić Jokić
22.10.2021		Pet 6	P23-24 8.00-12.30	Odri Cicvarić, DDM Elvis Božac, DDM
25.10.2021		Pon 6	P25-26 8.00-12.30	Odri Cicvarić, DDM Elvis Božac, DDM

26.10.2021		Ut 4	P27-28 13.15-16.15	Odri Cicvarić, DDM Prof.prim.Nataša Ivančić Jokić
27.10.2021		Sri 5	P29-30 13.15-17.00	Odri Cicvarić, DDM Prof.prim.Nataša Ivančić Jokić
28.10.2021	L24-30 8.00-14.00 Krešimirova 42/III			Prof.prim.Nataša Ivančić Jokić
29.10.2021		Pet 6	Exam	Prof.prim.Nataša Ivančić Jokić

List of lectures:

	LECTURES (Topics)	Teaching hours	Location/Lecture room
L1	Term and importance of dental morphology Methods of work in dental morphology	2	Krešimirova 42
L2	Topographic- anatomical marks on teeth	2	Krešimirova 42
L3	Nomenclature and areas in dental morphology Orientational surfaces in mouth	2	Krešimirova 42
L4	Surfaces, edges and angles on crown of teeth	2	Krešimirova 42
L5	Anatomical characteristcs of teeth	2	Krešimirova 42
L6	Morphological- anatomical characteristics of anterior teeth Morphological - anatomical characteristics of posterior teeth	2	Krešimirova 42
L7	Morphology of upper and lower dental row	2	Krešimirova 42
L8	Occlusion and types of occlusal positions	2	Krešimirova 42
L9	Anatomy of oral cavity	2	Krešimirova 42
L10	Physiology of oral cavity	2	Krešimirova 42
L11	Stomatognathic system Binomial	2	Krešimirova 42
L12	Mandibular movements Occlusal movements	2	Krešimirova 42
L13	Dental anthropology	2	Krešimirova 42
L14	Theories about origin of teeth	2	Krešimirova 42
L15	Hominids	2	Krešimirova 42
	TOTAL TEACHING HOURS	**30**	

	Practicals (Topics)	Teaching hours	Location/Lecture room
P1	Introductory remarks and methods of work. Drawing on paper topographic-anatomical parts and signs on teeth.	3	Krešimirova 42

	Drawing morphological characteristics on graph paper - upper central incisor		
P2	Drawing morphological characteristics on graph paper - upper lateral incisor and lower lateral incisor	3	Krešimirova 42
P3	Drawing morphological characteristics on graph paper - upper and lower canine Repetition of morphological-anatomical features of the incisors.	2	Krešimirova 42
P4	Drawing morphological characteristics on graph paper - first upper premolar and second upper premolar	2	Krešimirova 42
P5	Drawing morphological characteristics on graph paper - first lower premolar and second lower premolar	2	Krešimirova 42
P6	Drawing morphological characteristics on graph paper - first upper molar Repetition of morphological-anatomical features of canines and premolars	2	Krešimirova 42
P7	Drawing morphological characteristics on graph paper - second upper molar Drawing morphological characteristics on graph paper - the first lower molar	3	Krešimirova 42
P8	Basic characteristics of dental arches in plaster models	3	Krešimirova 42
P9	Drawing morphological characteristics on graph paper - second lower molar.	3	Krešimirova 42
P10	Drawing primary incisors on graph paper	3	Krešimirova 42
P11	Drawing primary molars on graph paper	2	Krešimirova 42
P12	Characteristics of normal occlusion	2	Krešimirova 42
P13	Repetition of teaching material	2	Krešimirova 42
P14	Colloquium - morphological-anatomical characteristics of teeth	2	Informatička učionica
P15	Modeling from clay in two sizes - the upper central incisor	3	Krešimirova 42
P16	Modeling from soap - upper central incisor	3	Krešimirova 42
P17	Modeling from soap - upper lateral incisor	3	Krešimirova 42
P18	Modeling from soap - upper canine	3	Krešimirova 42
P19	Modeling from soap -lower canine	2	Krešimirova 42
P20	Repetition of teaching material	2	Krešimirova 42
P21	Modeling from soap – first upper premolar	2	Krešimirova 42

P22	Modeling from soap – second lower premolar	2	Krešimirova 42
P23	Modeling from clay - first upper molar	3	Krešimirova 42
P24	Modeling from soap - first upper molar	3	Krešimirova 42
P25	Modeling from soap- second upper molar	3	Krešimirova 42
P26	Modeling from soap- first lower molar	3	Krešimirova 42
P27	Modeling from soap- second lower molar	2	Krešimirova 42
P28	Recognition of extracted native teeth 1	2	Krešimirova 42
P29	Recognition of extracted native teeth 2	2	Krešimirova 42
P30	Recognition of extracted native teeth 3	3	Krešimirova 42
	Total exercises hours	**75**	

	FINAL EXAM DATES
1.	29.10.2021.
2.	12.11.2021.
3.	20.12.2021.