



Syllabus for academic year: 2021/2022													
Training cycle: 2019/2020-2023/2024													
Description of the course													
Course	Restorative dentistry with endodontics (Cariology part 1) Stomatologia zachowawcza z endodencją (kariologia cz.1)							Group of detailed education results					
								Group code	F				Group name
Faculty	Dentistry												
Major	dentistry												
Level of studies	X uniform magister studies												
Form of studies	X full-time												
Year of studies	III						Semester:	X winter					
								X summer					
Type of course	X obligatory												
Language of study	X English												
Number of hours													
Form of education													
	Lectures (L)	Seminars (SE)	Auditorium classes (AC)	Major Classes – not clinical (MC)	Clinical Classes (CC)	Laboratory Classes (LC)	Classes in Simulated Conditions (CSC)	Practical Classes with Patient (PCP)	Foreign language Course (FLC)	Physical Education (PE)	Vocational Practice (VP)	Directed Self-Study (DSS)	E-learning (EL)
Winter semester:													
Department of Conservative Dentistry with Endodontics (Unit realizing the course)													
Direct (contact) education ¹		30			75								
Distance learning ²													
Summer semester:													
Department of Conservative Dentistry													

1

2



with Endodontics (Unit realizing the course)													
Direct (contact) education		18			75								
Distance learning	15												

TOTAL per year:

Department of Conservative Dentistry with Endodontics (Unit realizing the course)													
Direct (contact) education		48			150								
Distance learning	15												

Educational objectives (max. 6 items)

- C1. To familiarize students with the basic and specialized knowledge in the diagnosis and treatment of oral cavity diseases in adults.
- C2. Preparing students to perform individual caries risk assessment, establishing the treatment plan and recommendations for the patient.
- C3. Preparing students to perform restorative treatment of carious and non-carious hard dental tissues lesions as well as endodontic treatment.
- G4. Familiarize students with the dental treatment implications in a patient with the systemic disease.
- G5. Preparing students for active participation in health promotion, designing and implementing prevention programmes.

Education result for course in relation to verification methods of the intended education result and the type of class:

Number of detailed education result	Student who completes the course knows/is able to	Methods of verification of intended education results	Form of didactic class <i>*enter the abbreviation</i>
F.W2.	Knows the principles of prevention and treatment of diseases of the masticatory organ in different periods of development	Obtaining formative assessment grades in each practical class and passing the MCQ summative test exam	CC, SE,L
F.W3.	Knows the viral, bacterial and fungal flora of the oral cavity and its importance		CC, SE,L
F.W4.	Is able to describe the symptoms, course and management of specific oral cavity, head and neck diseases, considering age groups		CC, SE,L
F.W7.	Knows the morphology of pulp chambers and principles of endodontic treatment as well as instrumentation used in endodontic treatment;		SE,L
F.W11.	Knows and describes indications and contraindications for aesthetic dentistry procedures		CC, SE,L
F.U1.	Is able to conduct a medical interview with a patient or his/her family	Implementation of the delegated	CC

		task and completion of procedures	
F.U2.	Is able to perform a dental physical examination of the patient	Implementation of the delegated task and completion of procedures	CC
F.U3.	Is able to explain to the patient the nature of his/her ailments, determine the course of treatment confirmed by the informed consent of the patient and prognosis	Implementation of the delegated task and completion of procedures	CC
F.U6.	Is able to interpret the results of additional examinations and consultations	Implementation of the delegated task and completion of procedures	CC
F.U7.	Is able to determine indications and contraindications for specific dental procedure	Implementation of the delegated task and completion of procedures	CC
F.U11.	Is able to maintain current patient documentation, write referrals to examinations or specialistic dental and medical treatment	Implementation of the delegated task and completion of procedures	CC
F.U12.	Is able to formulate research problems in dentistry.	Implementation of the delegated task and completion of procedures	CC
K 01	Cooperates in a group of professionals, critically evaluates his own actions as well as those of his co-workers, respecting the worldview and cultural differences	<u>Summarizing methods:</u> - continuous assessment by the teacher (observation) <u>Formative methods:</u> - observation of student's work	CC, SE
K02	Formulates opinions concerning various aspects of professional activity and seeks expert advice in case of difficulties in solving problems independently	<u>Summarizing methods:</u> - continuous	CC, SE



		assessment by the teacher (observation) <u>Formative methods:</u> - observation of student's work	
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* L- lecture; SE- seminar; AC- auditorium classes; MC- major classes (non-clinical); CC- clinical classes; LC- laboratory classes; CSC- classes in simulated conditions; PCP- practical classes with patient; FLC- foreign language course; PE- physical education; VP- vocational practice; DSS- directed self-study; EL- E-learning

Student's amount of work (balance of ECTS points):

Student's workload (class participation, activity, preparation, etc.)	Student Workload	
	Winter semester	Summer semester
1. Number of hours of direct contact:	105	93
2. Number of hours of distance learning:		15
3. Number of hours of student's own work:	15	12
4. Number of hours of directed self-study		
Total student's workload	120	120
ECTS points for course	4	4

Content of classes: (please enter topic words of specific classes divided into their didactic form and remember how it is translated to intended educational effects)

Lectures – summer semester on-line

1. Esthetic dentistry and digital dentistry.
2. Developmental teeth abnormalities (number, size, shape, tissues structure, color, etiology, pathomechanism, clinical and radiological symptoms and signs, differentiation, therapeutic procedures)
3. Teeth discoloration (staining),- ethiopathomechanism, clinical signs and symptoms, therapeutic procedures, prevention)
4. 1. Patient motivation for pro healthy actions. 2. Individual - at home and professional caries preventive procedures. 3. The role of fluoride in oral health promotion; modern concepts of fluoride cariostatic actions (2 hours).
5. Dentin hypersensitivity – ethiopathomechanism, clinical symptoms, treatment, efficacy.
6. Oral health promotion – models o health promotion (health care, health education, prevention) the WHO basic methods of oral health surveys, oral health indices - DMFT, SiC, CPI and others, global goals of oral health proposed by the WHO/FDI; global data of the WHO, regional epidemiological data, comparison of caries epidemiological situation between countries.
7. Modern concepts and strategies of dental caries prevention. Caries risk assessment and prognosis of carious lesions development. Practical use of Cariogram - the interactive computer programme for evaluation of caries risk assessment and individually designed preventive measures.

Seminars

Winter semester

1. SEMINAR

1. Introduction to the clinical classes
2. Oral clinical examination – teeth (caries, , periodontal tissues (healthy and pathological changes of periodontal tissues), oral mucosa, salivary glands.
3. Investigations. Indices of dental caries, hygiene, dental plaque and periodontal tissues condition.
4. Dental plaque, calculus – detection, removal.
5. Oral hygiene instruction, dietetic instruction

2. SEMINAR

1. Restorative dental materials –phosphate cements, polycarboxylate cements, conventional and light-cured glass ionomer cements, cermets, compomers, composites (standard, packable and flow), giomers, amalgams; fissures sealants (composites and glass ionomers).

3. SEMINAR

1. Quality and quantity methods of early carious lesion detection.
2. Diagnosis of early carious lesion , making decision on invasive or non-invasive treatment.
3. Diagnosis of caries in regard of localisation the lesion

4. SEMINAR

1. Natural history of a caries and its determinants
2. Clinical an microscopic appearance of a caries
3. Caries of a crown and root
4. Classification of dental caries according to black and modern classifications

5. SEMINAR

Phases of cavity preparation according to Black and contemporary approach to particular stages of preparation. Rules of cavity preparations for adhesive and non -adhesive restorations. Methods of filing the cavity with various restorative materials(amalgam , GI composites). Preventive restorative treatment (PRR A and B), slot preparation, tunnel preparation, sandwich technique. Making decision about repair or replacement of the restoration

6. SEMINAR

Non-conventional methods of cavity preparations: 1. CMCR- chemo-mechanical caries removal, 2. ART- atraumatic restorative treatment, 3. air abrasion technique, 4. kinetic cavity preparation -KCP, 5. sonic system, 6. laser preparation 7. ozone therapy

7. SEMINAR

Rules of cavity restoration with the use of various restorative materials (amalgam, Layering technique of restoration- types, advantages and disadvantages
restorative clinical problems : loss of the restoration, crack or fracture of the tooth or restoration, post-treatment hypersensitivity, secondary caries

8. SEMINAR

Esthetic reconstruction of lost dental tissues (selection of the shade, type of material, optimal adhesion, technique of restoration and finishing the restoration.

9. SEMINAR

Local anesthesia – types methods, agents. Local anesthesia of medically compromised patients.

10. SEMINAR

Facial esthetics.

Summer semester

1. Seminar -Digital dentistry part 1
2. Seminar - Digital dentistry part 2
3. Seminar - 1 Non-caries lesions of hard dental tissues- definition of abrasion, attrition, erosion, abfraction: etiopathomechanism, incidence, clinical picture, treatment, prevention.
4. Seminar - 1. Oral health promotion - a model of health promotion (health protection, pro-health education, prevention, exponents of oral health, WHO, oral health status of indicator groups of children, adolescents and adults based on the results of epidemiological studies in the country with global data from the WHO data bank. Contemporary concepts of caries prevention, caries risk assessment and prognosis of caries lesions development. Practical use of Cariogram for caries risk assessment and individual prevention measures.
5. Seminar - Elderly patient. Root caries - conditions of development, clinical picture, prevention and treatment.
6. Seminar- Mechanism of cariostatic action of fluoride.



Classes

Winter semester: 5 clinical classes each lasting 5 lesson hours

1. Introduction to clinical exercises. Review of the regulation and credit requirements
2. Oral clinical examination and review of patient form. Indices. The knowledge of the instruments and materials accessible and used during clinical classes (destination, indications and contraindications for their use, ability of their preparation and usage)
3. Oral hygiene instruction - presentation of toothbrushing techniques on the model, presentation of dental flossing, use of interdental tooth brushes, indications for mouth rinses and irrigators. Staining agents disclosing the dental plaque. Patient with poor oral hygiene, non-cooperative (education, responsibility, decision of postponement of the treatment)
4. Colloquium in written or oral form - Dental instruments. Material used for restorations within the crown of the tooth. Performing clinical procedures on patients.
5. Dietetic and hygiene counselling in various clinical situations (pregnancy, caries, different types of non-carious dental hard tissue defects, orthodontic appliances, prosthetic works, crowding of the teeth, periodontal diseases)
6. Anxiety related to dental visits. Adaptation of the patient. Local anesthesia (medical history, indication and contraindications, techniques of local anesthesia, anesthetics with and without vasoconstrictor agents, insufficient or too short anesthesia)
7. Attention and carefulness of dental office environment, safety of the dental treatment (disinfection, the use of caustic and harmful agents, punctures, or injuries of the operator or patients - code of conduct; emergencies in dental office, epilepsy, herpes simplex, patient complaints – justified or excessive.
8. Colloquium in written or oral form - Pathology and clinical course of caries. Classifications of caries. Performing clinical procedures on patients.
9. Ergonomy of working with the patient in lying position (adaptation to the lying position, adjustment of the dental chair and the operative light, position of the operator and assistant. Alternative positions of the patient (pregnancy, obesity, tachypnoea, circulatory disorders. Passive and active assistance.
10. Instruments used for removing enamel, carious tissues, temporary obturations (Fletcher, zinc oxide) and final restorations (amalgam, composites and glass-ionomer), use of water and air cooling, speed of the rotary instruments, technique of work.
11. Access to the cavity in particular clinical situations, techniques saving the hard dental tissues, slot preparation, tunnel preparation, crowded teeth, lack of adjacent tooth
12. Colloquium in written or oral form - Treatment of dental caries. Performing clinical procedures on patients.
13. Selection of restorative material in specific clinical situations (carious and non-carious defects, esthetic aspects and economic considerations, localization, occlusal load, extension and depth of the cavity) Procedures before the restoration: (the use of etching gel / or conditioner. Adhesive system and material self or light cured, hand mixed or ready to use after activation, the use of isolators.

Summer semester: 15 x 5 hours 15 clinical classes each lasting 5 lesson hours

1. Introduction to clinical exercises, discussion of regulations and credit conditions. Performing clinical procedures on patients
2. Access to the cavity in different classes and clinical situations - tissue-saving techniques, slit preparation, tunnel preparation, crowded teeth, missing adjacent tooth Performing clinical procedures on patients
3. Instrumentation for removal of enamel, carious tissue, temporary fillings (Fletcher, zinc oxide with eugenol), definitive fillings (amalgam, composite, glass ionomer), cooling, rotations, technician. Performing clinical procedures on patients.
4. Methods of maintaining dryness of the operative field (rubberdam, buccal pads - dry pads, cotton rolls, suction, salivary gland). Stopping bleeding and retraction of gingiva - mechanical and chemical (sutures, retractive fluids, adrenaline)
Performing clinical procedures on patients.
5. C factor in different classes of cavities and influence on stress formation during polymerization shrinkage: choice of method for filling class II cavities (classical vs centripetal, celluloid strip vs metal strip). Performing clinical procedures on patients
6. Accessories for restoration of cavities in anterior teeth - strips, unica anterior, cervical formers and shapers, silicone index, modeling and contouring tools Performing clinical procedures on patients.
7. Accessories for restoration of cavities in posterior teeth - strips, shapers, moulds, occlusal punches, wedges, matrices Performing clinical procedures on patients
8. Final preparation of amalgam and aesthetic restoration - instrumentation, working techniques, sequencing (articulating paper, diamonds, Arkansas stones, finery, erasers, abrasive discs and strips, brushes and polishing paste). Performing clinical procedures on patients.

9. Dentin hypersensitivity. Performing clinical procedures on patients.
10. Assessment of the correctness of the filling (aesthetics, overhanging, underfilling, lack of convexity, lack of contact point, lack of sculpture of the occlusal surface, air bubbles - treatment of errors.
11. Postoperative recommendations for the patient after filling with amalgam, glass ionomer, composite chemo- and light-curing, after scaling, fluoridation, abolition of hypersensitivity (time of abstaining from food and drinks, Performing clinical procedures on patients
12. Contemporary concepts of caries prevention, caries risk assessment and prediction of cavity development. Performing clinical procedures on patients
13. Practical application of Cariogram for caries risk assessment and individual preventive measures. Perform clinical procedures on patients. Performing clinical procedures on patients.
14. Semester Credit. Performing clinical procedures on patients
15. Performing clinical procedures on patients

Basic literature (list according to importance, no more than 3 items)

1. Kidd E.A.M., Joyston-Bechal S.: Essentials of dental caries. 3rd ed. Oxford University Press, Oxford 2005.
2. Sturdevant" Art& Science of Operative Dentistry 5th edition Roberson T.M., Heymann H.O., Swift E.J, Mosby St. Louis 2006
3. Kidd E.A.M., Smith B.G.N., Watson T.F.: Pickard's manual of operative dentistry. 8th ed. (repr.). Oxford University Press, Oxford 2011

Additional literature and other materials (no more than 3 items)

1. Powers J.M., Wataha J.C.: Dental Materials. Properties and manipulation. Elsevier, 10th ed., 2013
2. Cameron A., Widmer P .R: Handbook of Pediatric Dentistry Mosby 2008

Preliminary conditions: (minimum requirements to be met by the student before starting the course)

Student is admitted to 3rd year classes after successfully completing the OSCE pre-clinical exam at the end of the 2nd year.

Conditions to receive credit for the course (specify the form and conditions of receiving credit for classes included in the module/course, admission terms to final theoretical or practical examination, its form, and requirements to be met by the student to pass it and criteria for specific grades)

BOTH SEMESTERS CREDIT REQUIREMENTS:

1. obtaining credits from tests from seminar's topics in winter and summer semesters (min. 61% of correct answers)
2. obtaining positive grades from all colloquia conducted in the winter and summer semesters
3. obtaining positive grades from the conversatories conducted in the winter and summer semesters (2 grades for each student)
4. a positive results of semester's crediting tests (min. 61% correct answers) in winter and summer semesters, tests of 25 questions from the scope of cariology classes, seminars and lectures (in summer semester).
5. performed obligatory practical procedures on patients in winter and summer semesters, including:
 - a. dental examination, filling in the examination card and hygienic and dietary instruction for each new patient (minimum 3 times),
 - b. preparation and restoration of 10 cavities,
 - c. X-ray diagnostics (interpretation of 4 x-rays)
6. if remote teaching is ordered by Rector Of Medical University, remote credit and exam is acceptable.
7. If the student fails a colloquium or a test, he/she is obliged to pass the material as soon as possible at the Department Head - Katarzyna Skośkiewicz-Malinowska, DDS, PhD on a date previously agreed with the Head of the Department.
8. The basis for the credit are the classes taken exclusively in variant A or mixed (variant A and supplementary B).

FINAL EXAM:

1. The exam will be held in the summer session (after 6th semester) and it will include topics from cariology realized during: clinical classes, seminars and lectures in winter and summer semesters.
2. Theoretical examination: a test of 100 single-choice or multiple-choice questions – maximum score of 100 points
3. 2nd and 3rd term exams will take place in retake session (September)- and the form of exams will be decided by the examiner



Grade:	Criteria for courses ending with a grade ³ MCQ Test - 25 questions (1 versksator + 4 distractors)
Very Good (5.0)	24-25
Good Above (4.5)	22-23
Good (4.0)	20-21
Satisfactory Plus (3.5)	18-19
Satisfactory (3.0)	15-17

Grade:	Criteria for exam ³ MCQ Test - 100 questions (1 versksator + 4 distractors)– after summer semester
Very Good (5.0)	96% - 100% points
Good Above (4.5)	91% - 95% points
Good (4.0)	81% - 90% points
Satisfactory Plus (3.5)	71% - 80% points
Satisfactory (3.0)	61% - 70% points

Unit realizing the course:	Department of Conservative Dentistry with Endodontics, Medical University of Wrocław
Unit address:	ul. Krakowska 26, 50-425 Wrocław
Telephone:	Tel.: (71) 784 0361, fax (71)784 0362
E-Mail:	stomzach@umed.wroc.pl

Person responsible for the course:	Prof. Katarzyna Skośkiewicz-Malinowska, DDS, PhD
Telephone:	Tel.: (71) 784 0361
E-Mail:	katarzyna.skoskiewicz-malinowska@umed.wroc.pl

List of persons conducting specific classes:				
Name and surname	Degree/scientific or professional title	Discipline	Performed profession	Form of classes
Urszula Kaczmarek	Prof., DDS, PhD	Medical science- Dentistry	dentist	lectures, seminars
Joanna Kobierska-Brzoza	DDS, PhD	Medical science- Dentistry	dentist	seminars, classes
Dagmara Piesiak -	DDS		dentist	seminars,

³ The verification must cover all education results, which are realize in all form of classes within the course



Pańczyszyn				classes
Agnieszka Czajczyńska-Waszkiewicz	DDS		dentist	seminars, classes
Małgorzata Kowalczyk - Zajac	DDS, PhD	Medical science- Dentistry	dentist	classes
Natalia Jawor	DDS		dentist	classes

Date of Syllabus development

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Syllabus developed by

Agnieszka Czajczyńska-Waszkiewicz, DDS

Signature of Head(s) of teaching unit(s)
Uniwersytet Medyczny we Wrocławiu
Wydział Lekarsko-Stomatologiczny
KATEDRA STOMATOLOGII ZACHOWAWCZEJ
Z ENDODONCJĄ
kierownik

Prof. Katarzyna Skośkiewicz-Malinowska, DDS, PhD

Dean's signature

Uniwersytet Medyczny we Wrocławiu
WYDZIAŁ
LEKARSKO-STOMATOLOGICZNY
DZIEKAN

prof. dr hab. Marcin Mikulewicz

