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Syllabus for academic year: 2021/2022													
Training cycle: 2020/2021-2024/2025													
Description of the course													
Course	Preclinical conservative dentistry								Group of detailed education results				
									Group code C	Group name Preclinical sciences			
Faculty	Dentistry												
Major	dentistry												
Level of studies	X uniform magister studies												
Form of studies	X full-time												
Year of studies	II							Semester:	X winter				
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:													
..... (Unit realizing the course)													
Direct (contact) education ¹		15		60									
Distance learning ²													
Educational objectives (max. 6 items)													
C1. Introduction with the basic knowledge about the caries process and classification of caries													
C2. Introduction students with the basic theoretical and practical knowledge in the field of treatment and tooth filling on the training phantom													
Education result for course in relation to verification methods of the intended education result and the type of class:													

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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 abbreviat:un</i>
C.W23	Recognizes the equipment of the dentist's office	Multi choice questions	SE,MC
C.W23	Recognizes the instruments used in the reconstruction of carious lesions	Multi Choice Questions	SE, MC
C.W24	Recognizes the basic and auxiliary dental materials used in the reconstruction of cavities	Multi Choice Questions	SE, MC
C.W27	Recognizes the phenomenon of adhesion and the procedure of adhesive preparation of enamel and dentin surfaces	Multi Choice Questions	SE, MC
C.W28	Recognizes the basic clinical procedures for the reconstruction of hard dental tissues	Short questions	SE, MC
C.U9	Can reconstruct missing tissues in phantom teeth	Implementation of the commissioned task	CN
C.U10	Can use adhesion technique	Implementation of the commissioned task	CN
C.U11	Chooses restorative materials	Implementation of the commissioned task	CN
* 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	
1. Number of hours of direct contact:		75	
2. Number of hours of distance learning:			
3. Number of hours of student's own work:		25	
4. Number of hours of directed self-study			
Total student's workload		100	
ECTS points for course		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)			
Seminars 5x 3hours (3x 45minutes)			
<ol style="list-style-type: none"> Etiopathogenesis of dental caries, microscopic and macroscopic (clinical) image, clinical classification, non-invasive and invasive treatment. Principles of preparation of all carious lesions according to Black - conventional and adhesive. Materials for the reconstruction of hard tooth tissues - division, properties and application. Hard tissue defects of non-carious origin. Safety and hygiene rules when working with a patient. 			
Classes:			
Classes 1:			
Theoretical part:			
<ol style="list-style-type: none"> Use and care of work place; dental unit, handpieces, instruments, arrangement of work place, proper use and maintenance of work place. Assembly and disassembly of the phantom, cleaning, use of dental unit. Types of dental instruments: diagnostic tools for preparation and filling, tips, drills (types and shapes). 			
Practical part:			
<ol style="list-style-type: none"> Drilling in different types of materials (glass, wood, plastic, gypsum). 			

2. Practicing the correct way of holding dental tools.

Classes 2:

Theoretical part:

1. Impregnation of cariously changed tooth tissues
 - a. preparations
 - b. indications
 - c. technique of the procedure
2. Temporary therapeutic filling.
3. Prefabricated steel crowns.
4. Caries infiltration - treatment technique.
5. Atraumatic caries treatment - technique of the treatment.
6. Chemomechanical caries removal - treatment technique.
7. Teeth varnishing - indications, preparations used, procedure technique.

Practical part:

1. Tooth impregnation.
2. Teeth varnishing.
3. Temporary therapeutic filling.

Classes 3:

Theoretical part:

1. Etiology and pathogenesis of dental caries, dental caries in pits and fissures.
2. Materials used to fissure sealing - indications, contraindications, types, properties, effectiveness.
3. Fissure sealing - indications, treatment techniques, tools and materials.
4. Fissure sealing, indications, treatment technique, tools and materials.
5. Fissure sealing procedures.
6. Preventive resin restoration; PRR A; indications, clinical technique, instruments, materials.
7. Preventive resin restoration PRR B; indications, clinical technique, instruments, materials.

Practical part:

1. Fissure sealing of permanent natural teeth (3 teeth).
2. Widen fissure sealing (permanent natural teeth) – PRR A and B (3 teeth).

Classes 4:

Theoretical part:

1. Principles of preparation and preparation of a class I cavity
 - stages of cavity preparation
 - modern approach to the phases of carious cavities preparation according to Black.
2. Basic information about temporary materials - classification, composition, properties, application, preparation.

Practical part:

1. Preparation of a class I cavity (maxilla, mandible, molar or premolar) and placement of a temporary filling (2 teeth).
2. Preparation of a class I cavity (simple; maxilla or mandible, molar or premolar) - and placement of a temporary zinc oxide eugenol filling (2teeth).
3. The student becomes familiar with the preparation of provisional material.

Classes 5:

Theoretical part:

1. Basic knowledge of glass-ionomer materials - classification, composition, properties, application, preparation, indications, adhesion of glass-ionomer materials.

Practical part:

1. Removal of the temporary filling from the prepared Class I Blacks from the previous exercise.
2. Continuation of BI I preparation and filling with glass ionomer material simple (maxilla or mandible, molar or premolar) 2teeth.
3. Continuation of BI I preparation and filling with glass ionomer material complex (maxilla or mandible, molar or premolar) 2teeth.

Classes 6:

Theoretical part:

1. Basic knowledge of composite materials - composition, classification, polymerization, properties, polymerization shrinkage, bond strength to hard tissues, depth of polymerization, finishing, polishing, types.
2. Polymerization lamps - polymerization methods, factors influencing the polymerization process (equipment related and procedural factors), types of polymerization lamps.
3. Adhesive systems, generations, application, adhesion in dentistry.

Practical part:

1. Preparation and filling of cavities of class BI. I with composite material - 4 teeth.
2. Preparation of samples from a composite material with a thickness of 2mm.

Classes 7:

Theoretical part:

1. Basic information on composite materials -liners, application.
2. Sandwich technique - indications, open and closed sandwich.
3. The use of an appropriate retainers, matrix, wedge, reconstruction of the tangent point, matrix contouring, tightness control.

Practical part:

1. Preparation and filling of class II cavities - each student 3 teeth / 3 cavities (composite material filling, temporary filling, sandwich filling - closed / open sandwich).

Classes 8:

Theoretical part:

1. Basic knowledge of compomer materials, giomers, ormocers.
2. Reasons for the loss of filling, improper application of the bonding agent, contamination of the defect with saliva, insufficient rinsing, etching, tooth overload.
3. Development and polishing of the filling, filling contour.

Practical part:

1. Preparation and filling of class BI. II cavities with a step - each student 3 teeth / cavities (sandwich filling - open / closed sandwich, filling with glass-ionomer material, filling with composite material).

Classes 9:

Theoretical part:

1. BL.II MOD-principles of preparation and reconstruction methods.
2. Clinical aspects of the preparation and filling of multi-surface carious cavities.
3. Methods of layered reconstruction of cavities in posterior teeth.

Practical part:

1. Preparation of the cavity class II MOD (maxilla, mandible, molar), filling with glass-ionomer material - each student 1 tooth.
2. Preparation of extensive MOD cavity and composite filling - each student 1 tooth.

Classes 10:

Theoretical part:

1. Principles of preparation of class III cavities.
2. Access to the cavity and protection of the adjacent tooth.
3. The geometry of the defect class III.
4. Errors and complications related to the treatment of carious lesions, lack of a proximal point, overhang, leakiness, occlusion disorder.

Practical part:

1. Preparation and filling with composite material for 1 class III defect in the superior central incisor - each student.
2. Preparation and filling with glass-ionomer material 1 class III defect in the upper glue - each student.
3. Preparation and filling with temporary material for 1 class III defect in the lower lateral incisor - each student.

Classes 11:

Theoretical part:

1. Caries morphology of BI IV cavities.
2. Steps of the cavities BI IV preparation
 - a. access to the cavity and protection of the adjacent tooth
 - b. geometry of the BI IV cavities.
 - c. influence of the preparation on the aesthetics of the filling and improvement of the adhesion of composite materials (proper enamel preparation)
 - d. adhesive preparation, fractured dental crown bonding.
3. Aesthetic reconstruction of anterior teeth - two-layer, three-layer and multi-layer method.
4. Matrices and retainers - types and application, wedges, proximal point, tooth shape.
5. Composites - color selection, optical properties of enamel and dentin, layering technique, consistency (viscosity) of the material.
6. Finishing and polishing of restoration, occlusion, proximal point.
7. Loss of retention – causes, mistakes in bonding and etching, saliva contaminations.
8. Differences between Black IV carious lesions and anterior teeth injuries.

Practical part:

1. Aesthetic reconstruction of the upper medial incisal tooth after an injury with a silicone index - 1 tooth for each student.
2. Aesthetic reconstruction of a class IV defect in the upper lateral incisor using a two-layer or three-layer technique.

Classes 12

Theoretical part:

1. Caries morphology of the BI V cavities.
2. Steps of the BI V preparation.
3. Appropriate enamel preparation and aesthetics.
4. Influence of the presence or absence of enamel on the gingival wall on the procedure and prognosis.
5. Application of the retraction cord.
6. Finishing and polishing the restoration.

Practical part:

1. Development and filling of 2 class V cavities in the anterior region- 2 teeth each student.
2. Development and filling of 2 class V cavities in the posterior region -2 teeth each student.



Classes 13

Theoretical part:

1. Noncarious lesions – types.
2. Reasons for the formation of hard tissue defects of non-carious origin - erosions, abrasions, abfractions, attritions.
3. Differentiation with Black V carious lesions.
4. Materials for filling cavities in hard tissues of a non-carious tooth, the choice of material depending on the etiological factor and the size of the cavity.
5. Errors and limitations in the preparation and filling of cavities in hard tissues of a non-carious tooth.

Practical part:

1. Preparation and filling with a composite, compomer or glass-ionomer material 2 non-carious erosive defects and 2 abrasive or abrasive defects - each student.

Classes 14

Theoretical part:

1. Repetitorium – test.
2. Fillings of inlay -onlay, overlay
 - a. indications and contraindications
 - b. materials used
 - c. preparation
 - d. methods of execution - direct and indirect
 - d. post cementation, stages.
3. Permanent teeth whitening, indications, contraindications, techniques and preparations used, liquid cofferdam, protection of soft tissues.

Practical part:

Self-assessment of practical and theoretical effects.

Classes 15

1. Crediting of all performed treatments.
2. Self-assessment of practical and theoretical effects.
3. Completion of the course.

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

1. Sturdevant's art and science of operative dentistry / ed. Theodore M. Roberson, Harold O. Heymann, Edward J. Swift. - 6th ed.. - St. Louis : Mosby , 2012
2. Kidd E.A.M. Smith B.G.N., Pickard H.M.: Picard's Manual of operative dentistry.9. ed. Oxford Medical Publication 2011.

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

1. Kidd E.A.M.. Joyston-Bechal S. : Essentials of dental caries. 3 ed. Oxford University Press, Oxford 2005

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

Completion of subjects: Dental ergonomics, Dental modeling in the 1st year.

Conditions to receive credit for the course: (specify the form and conditions of receiving credit for classes included in the 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)



Admission to the credit is based on the performance of certain procedures (that is to develop and fill cavities on the teeth phantom) and oral (checking, discussion, presentation) and checking knowledge test.
The subject of preclinical conservative dentistry is included in the exam in preclinical dentistry for the second year.

	Criteria for courses ending with a credit ³
Credit	Multi choice questions test passed > or = 60% correct answers failed < 60% of correct answers

Unit realizing the course:	Department of Pedodontics and Preclinical conservative dentistry
Unit address:	ul. Krakowska 26, 50-425 Wrocław, Class 325
Telephone:	(71)7840362
E-Mail:	stomzach@umed.wroc.pl

Person responsible for the course:	prof. Maciej Dobrzyński, PhD			
Telephone:	(71)7840362			
E-Mail:	stomzach@umed.wroc.pl			
List of persons conducting specific classes:				
Name and surname	Degree/scientific or professional title	Discipline	Performed profession	Form of classes
Michał Biały	PhD	Medical science	Dentist, specialist in dental prosthetics	Non-clinical classes, Seminars

Date of Syllabus development
15.09.2021

Syllabus developed by
Michał Biały

Dean's signature

Uniwersytet Medyczny we Wrocławiu
WYDZIAŁ
LEKARSKO-STOMATOLOGICZNY
.....
prof. dr hab. Marcin Mikulewicz

Signature of Head(s) of teaching unit(s)

Uniwersytet Medyczny we Wrocławiu
..... Wydział Lekarsko-Stomatologiczny
KATEDRA I ZAKŁAD
STOMATOLOGII DZIECIECIEJ
I STOMATOLOGII PRZEDKLINICZNEJ
kierownik
dr hab. n. med. Maciej Dobrzyński, profesor uczelni

