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			6 01							•••••	•			
Module/Course			Description of the course Preclinical restorative dentistry				Group of detailed education resu Group code C Group name I Preclinical stud				III-			
Faculty			Facult	y of De	entistr	v						1 Tecini	iicai st	uuy
Major			Dentis	·		,								
Unit realizing the subje	ect			-	of Pe	dodon	itics and	d Prec	linical	cons	servati	ve dent	istry	
Specialties		(Conse	rvative	e denti	stry								
Level of studies			1 st deg 2 nd de 3 rd deg	rm mag gree st gree st gree st aduate	udies [udies udies [; X *							
Form of studies		,	X full-	time	X pa	rt-time	5							
Year of studies		I	I					Sem	ester		Winte Sum			
Type of course			∃ limit	gatory ced cho choice		ctive								
Course		<u> </u>	X majo	or X ba	sic									
Language of instruction	า	[□ Poli	sh X	Englisl	n 🗆 o	ther							
* mark \square with an X														
						per of								
					Form	of edu	cation							1
Unit teaching the course	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)	Specialist Classes – magister studies (SCM)	Foreign language Course (FLC)	Physical Education obligatory (PE)	Vocational Practice (VP)	Self-Study (Student's own work)	E-learning (EL)
Winter Semester														
Direct (contact) education				30										
Online learning (synchronous)		15												
Distance learning (asynchronous)				30										
Summer Semester														

Direct (contact) education											
Online learning (synchronous)											
Online learning (asynchronous)											
TOTAL per year:											
Direct (contact) education				30							
Online learning (synchronous)		15									
Online learning (asynchronous)				30							

Educational objectives (max. 6 items)

C1. To obtain the basic knowledge on carious process

C2. To obtain the basic theoretical and practical knowledge regarding dental treatment and caries lesions restoration, restorative materials and restorations placement on phantom patient.

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

Number of course education result	Number of major education result	Student who completes the module/course knows/is able to	Methods of verification of intended education results (forming and summarising)	Form of didactic class **enter the abbreviation
W 01	C. W.26	To define caries disease	Oral response,(F), test (P), OSCE	SE, MC
W02	C.W. 25	To describe and explain the principles of conventional and adhesive preparation of all classes of dental cavities according Blacks classification	Oral response,(F), test (P), essay (P), discussion (F), OSCE	SE, MC
W03	C.W. 24	To describe properties of dental restorative materials and their clinical application	Oral response,(F), test (P),discussion (F), OSCE	SE, MC
W04	To characterize of methods of decay restoration of all		Oral response,(F) , discussion (F), essay (P), OSCE-test (P)	SE, MC
W05	C.W. 27	To explain the goal and performance of pits and fissures sealing	Oral response,(F), test (P),discussion (F), OSCE-test (P)	SE, MC



W06	C.W. 26	To describes and	Essay (F), discussion (F), presentation (F),	MC
	c 25	differentiates the loss of hard tissue of non-carious origin	OSCE-test (P)	
U01	C.U 05	To perform preparation of all cavities classes according to Black classification on phantom patient	Observation (F) – grade scale from 2 to 5 (F), Assessment OSCE- test (P)	MC
U02	C.U 12	To perform restoration of all cavities classes according to Black classification	Observation, Assessment (F), OSCE-test (P)	MC
U03	C.U 11	To elect restorative materials and connecting based on the properties of materials and the clinical conditions of the caries and non caries cavities	Observation, Assessment (F), discussion (F), OSCE- test (P)	MC
U04	C.U4	To be able to indicate own errors in the reconstruction of the tooth decay and give the way of their correction	Observation, Assessment OSCE- test (P)	MC
U05	C.U5	To be able to work with the simulated patient in laying position by use in proper way the dental instruments	Observation, Assessment OSCE- test (P)	MC
U06	C.U 10	To be able to seal pits and fissures	Observation, Assessment OSCE- test (P)	MC
K 01	K 01	To be able to create rules of the professional comradeship and the cooperation with representatives of other health care professionals	Summarizing methods: - constant evaluation by teacher (surveying) Shaping methods: - observation of student's work - discussion during classes - opinions of colleagues	MC
К02	К02	To cooperate in the group of professionals, in the environment multicultural and multinational	Summarizing methods: - constant evaluation by teacher (surveying) Shaping methods:	MC

			- observation of student's work - discussion during classes - opinions of colleagues	
К03	коз	To be aware of its own restrictions and is able to plan educational activity	Summarizing methods: - constant evaluation by teacher (surveying) Shaping methods: - observation of student's work - discussion during classes - opinions of colleagues	MC

^{**} L - lecture; SE - seminar; AC - auditorium classes; MC - major classes (non-clinical); CC - clinical classes; LC - laboratory classes; SCM - specialist classes (magister studies); CSC - classes in simulated conditions; FLC - foreign language course; PCP practical classes with patient; PE - physical education (obligatory); VP - vocational practice; SS - self-study, EL - E-learning.

Please mark on scale 1-5 how the above effects place your classes in the following categories: communication of knowledge, skills or forming attitudes:

Knowledge: 5 Skills: 4

Social competences: 3

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

Student's workload	Student Workload (h)
(class participation, activity, preparation, etc.)	
1. Contact hours:	30
2. Online learning hours (e-learning):	45
3. Student's own work (self-study):	15
Total student's workload	90
ECTS points for module/course	3
Comments	

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

Seminars

Semester 3

Nr	Theme
	1. Caries ethiopathomechanism: cariogenic bacteria (plaque - biofilm), dietary fermentable carbohydrates,
	factors associated with the teeth (saliva, fluoride), and the time factor.

1. 2. Dental caries – microscopic and clinical manifestations; white spot, progression of carious lesions, superficial, medium, deep caries 3) Dental cavities classification by Black and SiSta 4) Dental caries treatment: non-invasive and invasive (operational). Non-invasive treatment (remineralization). Fluorite; Caseinate complex with amorphous calcium phosphate; Bioactive glass-phosphosilicon calcium-sodium. 5) Minimal invasive treatment: (1) fissure sealing, (2) caries infiltration, (3) widen fissure sealing, (4) preventive resin restoration, (5) tunnel preparation, (6) key hole preparation, (7) ART technique; (8) chemomechanical caries removal, (9) abrasive preparation (10) laser preparation, 6) Invasive methods of dental caries treatment - Steps of cavities preparation by modified Black's principles (amalgam and composite resin); Initial tooth preparation stages: Outline form and initial depth, Dental caries removal, Resistance and retention form, Finishing external walls, choice of material and their preparation; wash and dry the cavity; filling the cavity; Finish filling. 7) Class I composite and amalgam restoration – step by step 2 1) Materials for reconstruction of hard tissues of the tooth. Distribution: temporary filling materials, liners, final filling materials, materials for filling holes and fissures, adhesive systems. 2) Clinical application of dental restorative materials (indications and contraindications) a) Glass-ionomer; biomechanics; (types: type I - Luting, type II - Fillings, type III - Liners and Bases, type IV -Sealants , Type V - orthodontics, VI - Core ; types: conventional - and modified resin - light-cured; b) Composites – consistency (flow, normal, packable, pit-and-fissure sealant); biomechanics, adhesion, clinical technique (acid-etching and bonding technique), polimeryzation methods composite restoration; layers; use of flowable composite c) compomer, d) ormocer, e) giomer, f) Amalgam; low-copper, high-copper, shape of the particles - spherical, irregular. 3) Polymerization of composites and glass ionomer; polymerization techniques, reconstruction techniques (bulk, layered). 4.Adhesive system - generations (I-VIII), the way the application. 5. Amalgam filling - clinical stages; composite resins - clinical stages. 6 Liners -division 7. Liners and base: composition, defect, advantages, clinical application of each of the materials (phosphate, carboxylic, GI, ZnO + eugenol, Ca (OH) 2 purpose of use, When you use liners?, application techniques, materials for base and liner 9 Adhesion and non-adhesion of the liners 10.Temporary fillings 3. Preparation and filling of Class I-V cavities, step by step, adhesive and non-adhesive 1) Class I composite restoration – step by step 2) Class I amalgam restoration – step by step 3) Class II composite restoration – step by step 4) Class II amalgam restoration – step by step 5) Class III composite restoration – step by step 6)Class III GI restoration – step by step 7) Class IV composite restoration – step by step 8) Class V composite restoration – step by step 9) Class V amalgam restoration – step by step 10) Matrices and retainers - types and application, wedges, gum bleeding, proximal contact, occlusal surface reconstruction 4 1) Non-carious lesions - causes, clinical view, therapeutic procedure. introduction and differentiation with carious cavities Erosion, abfraction, attrition, 2)Traumatic damage to teeth 3) Differentiation of carious and non-carious lesions 4) Developmental disorders - hypoplasia-causes, clinical view, treatment strategies. 5) Others hard tissue defects – clinical view, therapeutic procedure, minimally invasive class II cavity preparation (slot preparation, tunnel preparation)

- 5 1) Indirect fillings in posterior teeth: inlay, onlays, overlay, pinlay.
 - 2) CAD / CAM (Computer-Aided Design and Computer-Aided Manufacturing).
 - 3)The rules of hygiene
 - a. cross-infection
 - b. basic knowledge of disinfection and sterilization
 - c. Handpiece conservation, suction and other parts of dental unit
 - d. the patient and the physician as a potential source of infection
 - e. protection of doctor and patient

Practical classes

Semester 3

1. Introductory exercise			
<u>Introduction</u>	Repetition	<u>Demonstration</u>	<u>Practical</u>
1. Simulating tutorials calendar, curriculum, requirements, evaluation and conduct; professional behaviour during simulating procedures 2. Use and care of work place; dental unit, handpieces, instruments, arrangement of work place, proper use and maintenance of work place 3. Demonstration – operator and patient positioning 4. Assembly and disassembly of the phantom, cleaning, use of dental unit. 5. Proper use and clean maintenance of handpieces; sorting instruments in the appropriate set 6. Types of dental instruments: diagnostic tools for preparation and filling, tips, drills (types and shapes) 7. The rules of hygiene a) basic knowledge of disinfection and sterilization b) maintenance tips, suction and other dental unit parts c) the patient and the physician as a potential source of infection d) protection of doctor and patient e) incorrect habits	Teeth and instruments (1) Dental nomenclatu re (2) Numerical identificatio n of teeth (3) Dental instruments	1) Hand instruments grip 2)Dental handpiece grip 3) Finger rest 4) Cutting technique 5) Keeping ergonomic posture surgery in the correct distance between the phantom patient and the operator,	1) Drilling in different types of materials (glass, wood, plastic, gypsum). Preparation of concrete shape in gypsum 2.Preparation predetermined shape in the teeth, plaster, acrylic: Shape round-diameter-from 2 to 3 millimeters and a depth of from 1 to 3-4 millimeters, oval, square, trapezoidal with different depths Attention Cariogenesis – metabolism of sugars (biochemistry) - homework

2. Fissure sealing, PRR A, PRR B							
<u>Introduction</u>	Repetition	<u>Demonstration</u>	<u>Practical</u>				
1 Etiology and pathogenesis of dental caries, dental caries in pits and fissures. 2. Dental caries location - diagnosis and prevention3. Classification of caries by Black and Si-Sta 4 Preparation of cavities a cost-effective preparation, non-invasive treatment, accurate outlines b Modified rules for preparation of cavities by	Teeth and instruments (1) Dental nomenclature	1) Keeping ergonomic posture during caries treatment and the correct distance between the	1) Fissure sealing of permanent natural teeth 2) Widen fissure sealing (permanent natural teeth) – PRR A				
b Modified rules for preparation of cavities by Black (NO extension for prevention , NOT - a		between the phantom					



sharp angle between the walls and the bottom	(2) Numerical	patient and the	3) Preparation of small Class I	Ţ
of the cavity, NOT parallel walls)	identification	operator,	cavity as preventive resin	
c opening and outline form of the defect, the	of teeth		restoration - PRR B	
determinants		2) Setting the		
d resistance form	(3) Dental	patient and the	4) Class I cavity preparation –	
e retention form	instruments	operator to	composite (simple, complex,	
f adhesive materials and the shape of the cavity		work in the	maxilla, mandible, molar,	
c principles of cavity preparation Class I		upper and	premolar and the establishment	
(location, outline correct and errors (excessive		lower jaw	of a temporary filling)	
preparation))		2) 5:	5) Class I cavity preparation –	
d. Explanation of and relationships between the		3) Fissure	composite (simple, complex,	
size and shape of the defect, the location and		sealing, widen	maxilla, mandible, molar,	
shape of the cavity, the material and shape of		fissure sealing (permanent	premolar and the establishment	
the cavity of the tooth, anatomy and the outline		natural teeth) –	of a temporary filling)	
and shape of the cavity		PRR A;	6) Class I cavity preparation –	
h corresponding slope edge of the cavity		Preparation of	amalgam (simple, complex,	
i Determinants outline the cavity shape,		small Class I	maxilla, mandible, molar,	
resistance and retention form, cavity margins		cavity	premolar and the establishment	
preparation (hand instruments)		connected with	of a temporary filling)	
4 Hand tools - chisels, enamel trimmers		preventive	7) Name all stages of cavity	
5 Modeling fillings, shaping occlusal surface		resin	preparation, cavity walls, tools.	
8 Control of the occlusion		restoration -	8)Accurate modeling of the	
9.Fissur sealing - indications, treatment		PRR B	occlusal surface with a	
techniques, tools and materials 10. Fissure sealing procedures			temporary filling	
11. Preventive resin restoration; PRR A;		4) Class I cavity	, , ,	
indications, clinical technique, instruments,		preparation for		
materials		composite and		
12 Preparation of small Class I cavity as		amalgam and	Attention	
preventive resin restoration PRR B; indications,		fill it with	Temporary filling	
clinical technique, instruments, materials		temporary		
		filling.		
				L

3. Class I Amalgam, Composite		
Introduction	<u>Demonstration</u>	<u>Practical</u>
 Etiology and caries progression in pits, fissures Choosing the right method of treatment depending on the stage caries lesion Arrested caries, when and why? Using of dental probe is safe? Steps of cavities preparation by modified Black's principles Outline form Dental caries removal Resistance and retention form (Not - extension for prevention, Not - sharp wallsbottom angle, Not - parallel walls): when to cover cusps; Determinants, principles and specification of Class I cavity preparation; 	1. Ergonomic posture during operative procedures (distance between dentist eye and tooth) 2. Work in upper and lower arch (usage of dental mirror and positioning in upper and lower teeth) 3. Cavity Class I preparation and restoration by amalgam 4. Cavity Class I preparation and restoration by composite	1. Preparation and restoration Class I cavities for composite (simple, complicated; maxilla, mandible; molar and premolar) 2. Preparation and restoration Class I cavities for amalgam(simple, complicated; maxilla, mandible; molar and premolar)

5. Steps of cavities preparation by Black's	3. Names of all steps
6. Resistance and retention form	of cavity preparation
7. Walls angles in cavity preparation for	
amalgamat	
8. Basic information about materials GI and amalgam.	
9. Preparation of amalgam ang GI	
10. Instruments for amalgam restoration	
(excavators, chisels)	

4. 2 x Class I - continuation	Danie and the tier	Duratical
ntroduction	<u>Demonstration</u>	<u>Practical</u>
a. Dental caries etiology and morphology, caries progression in pits, fissures. 2. Progression of carious lesions – method of preparation and restoration 3. Using of dental probe is safe? 4. Steps of cavities preparation by modified black's principles (Not - extension for prevention, Not – sharp walls-bottom angle, Not – parallel walls): (a) Outline form (b) Dental caries removal (c) Resistance and retention form (d) Proximal wall preparation (e) Gingival wall preparation (e) Gingival wall preparation (CEJ location, materials) (f) Proximal parts of lateral wall preparation (f) Cusps reconstructions (f) Basic information about amalgam and GI (f) Preparation of amalgam and GI (f) Preparation of amalgam restoration excavators, chisels) (g) Matrices and retainers - types and application, wedges (g) Smooth enamel margins (g) Smooth enamel ena	1. Ergonomic posture during operative procedures (distance between dentist eye and tooth) 2. Work in upper and lower arch (usage of dental mirror and positioning in upper and lower teeth) 3. Cavity Class I preparation and restoration by amalgam 4. Cavity Class I preparation (matrices and retainers - types and application, wedges, proximal contacts) and restoration by liner and amalgam with proximal contacts and occlusal surface modeling	1. Preparation and restoration 2 Class I cavities (simple, composed; maxilla, mandible; molar and premolar) and 1 Class I cavity 2. Preparation and restoration 2 Class I cavities with reconstruction of occlusal surface 3. Names of all steps of cavity preparation 4. Before composite restoration filling by temporary materials 5. Before restoration — modeling all surfaces by plasticine 6. Preparation of simple Black II (maxilla or mandible, molar or premolar) under the assumption of an amalgam filling and a temporary filling.



<u>Introduction</u>	<u>Demonstration</u>	Practical
L.Morphology of Class V	Ergonomic posture during	1. Preparation of 4
2. Rules of Class V cavity preparation.	operative procedures (distance between dentist and tooth)	Class V preparation (maxilla, mandible,
3. geometry of cervical cavity (amalgam, GI, composites)	2. Work in upper and lower arch	molar), restoration by composite, glass
b) preparation - esthetics and composites adhesion (enamel contouring)	(usage of dental mirror and positioning in upper and lower teeth)	ionomer (sandwich technique) and amalgam
c) steps and drills of Class V cavities preparation	3. Conventional and adhesive preparation of Class V cavity	2. Names of all step
d) preparation, lack of preparation (when you can dispense with cavity preparation)	enamel preparation, reconstruction.	of cavity preparatio 3. Before permaner
4) Reconstruction of tooth shape		filling place
5) the use of retraction floss, matrices		temporary filling
6) Gingival wall (presence or lack of enamel) – procedures, prognosis		
7) Liners application and materials		
8) Finishing and polishing of restoration, shape of Class V restoration		
9) Mistakes and after effects (shape – problems and its solutions, overhang, leakiness, occlusal mistakes, caries secundaria)		
10) The reasons for the loss of filling, improper application of bonding agent, saliva, insufficient rinsing, bad eching, 11) Stages of cavity preparation by Black, Black and SiSta - repertory		



6. 5 × Class V		
Introduction	<u>Demonstration</u>	<u>Practical</u>
1.Morphology of Class V	1. Ergonomic posture during	1. Preparation of 4
2. Cavity Class V preparation by conventional and adhesive mode	operative procedures (distance between dentist eye and tooth)	Class V preparation (maxilla, mandible, molar), restoration
3. geometry of cervical cavity (amalgam, GI, composites)	Work in upper and lower arch (usage of dental mirror and positioning in upper and lower	by composite, glass- ionomer (sandwich technique) and
b) preparation - esthetics and composites	teeth)	amalgam
adhesion (enamel contouring)c) steps and drills of Class V cavities preparation	3. Conventional and adhesive preparation of Class V cavity	2. Names of all steps of cavity preparation
d) preparation, lack of preparation (when you can dispense with cavity preparation)	4. Filling of Class V – amalgam, composite resin, compomer, GI	
4) Reconstruction of tooth shape		
5) Gingival wall (presence or lack of enamel) – procedures, prognosis		
6) Mistakes and after effects (shape – problems and its solutions, overhang, leakiness, occlusal mistakes, caries secundaria)		
7) The reasons for the loss of filling, improper application of bonding agent, saliva, insufficient rinsing, bad etching,		



ntroduction Etiology and pathogenesis of dental caries, lental caries in pits and	<u>Demonstration</u>	<u>Practical</u>	
		<u>Practical</u>	
lental caries in nits and	1. Ergonomic posture	1.Preparation and	
circai caries in pies and	during operative	restoration 1 Class II	
fissures and smooth surfaces;	procedures (distance	cavities by composite	
Choosing the right method of treatment	between dentist eye and	resin.	
ccording to the severity of the caries lesion	tooth)		
B. Using of dental probe is it safe – arested caries?	•	2. Preparation and	
. Steps of cavities preparation by modified Black's	2. Work in upper and lower	filling composite	
principles	arch (usage of dental	(maxilla or mandible,	
) Outline form	· •	molar or premolar).	
) Dental caries removal	mirror and positioning in	Sandwich technique	
) Resistance and retention form	upper and lower teeth)	3 Continued	
l) Not - extension for prevention, Not – sharp	2 Dranaration and	preparation and	
valls-bottom angle, Not – parallel walls	3. Preparation and	amalgam filling one	
e) Proximal wall preparation	restoration of 1 Class II	cavity class II (straight	
) Gingival wall preparation (CEJ location,	cavity by sandwich	_	
naterials)	technique	maxilla or mandible,	
) Proximal parts of lateral wall preparation		molar and premolar)	
n) cusps reconstructions	4. Class II simple and	4 Dramaration of MOI	
5. Stages of cavity preparation by Black,	complex - differences	4. Preparation of MOI	
6. resistance and retention form, how to get the etention		(maxilla or mandible,	
7. The corresponding angles of preparation and	5. Preparation and	molar or premolar).	
illing in the application of amalgam	restoration 1 Class II	Sandwich technique	
B. basic information about materials and amalgam	cavities by amalgam.	and a temporary	
GI		filling.	
Preparation for amalgam and cement GI	6. Cavity preparation class		
.0. Instruments for cavity preparation: chisel,	II, an appropriate matrix	5. Preparation of MOI	
namel trimmers.	and wedge point of	(maxilla or mandible,	
1. Matrices and retainers - types and application,	contact, contouring matrix,	molar or premolar).	
vedges. Multisurface cavity preparation and	leak test, backing and filling	Sandwich technique	
estoration	amalgam of carving and	and a temporary	
. Cusp and tooth fracture	modeling occlusal contact	filling.	
o. Proximal point – problems and its solutions	surface		
. Reconstruction of the tooth with cusp fracture		6. Name all stages of	
.2. Sandwich technique	7. Cavity preparation type	cavity preparation,	
. indications	the MOD and MOD	cavity walls, tools	
o. closed and opened technique	composite filling	7. Before completing	
. materials		the final fill temporary	
3 Matrices and retainers - types and application,			
vedges			
4. Biomechanics of teeth and materials			
.5. Composites and GI – clinical technique,			
naterial and teeth preparation, layer technique,			
dhesion, advantages and disadvantages			
.6. Enamel margin preparation			
7. Steps of cavities preparation by Black's			
orinciples; dental cavities classification by Black and SiSta			

18. Proximal point, restoration margin, polishing.		
8 Class II cavities, composites, MOD, MODB, M	atrices. Materials	
•		
Introduction	<u>Demonstration</u>	<u>Practical</u>
1 Etiology and pathogenesis of dental caries, dental	1 Keeping ergonomic posture surgery	1 Cavity preparation
caries in pits and fissures and smooth surfaces; 2 Choosing the right method of treatment according	in the correct distance between the	class II (maxilla,
to the severity of the caries lesion	phantom patient and the operator,	mandible, molar),
3. Using of dental probe is it safe – arrested caries?	2 Position the patient and the	filling sandwich (open
4. Steps of cavities preparation by modified Black's	operator to work in the maxilla and	sandwich)
principles	mandible	2 Cavity preparation
a) Outline form	3 Filling a cavity MOD, MOD	class II MOD (maxilla,
b) Dental caries removal	6 sandwich technique	mandible, molar),
c) Resistance and retention form d) Not - extension for prevention, Not – sharp walls-	7 Slot preparation and Tunnel	filling sandwich or
bottom angle, Not – parallel walls	preparation	composite
e) Proximal wall preparation	8 The demonstration of primers,	3 Extensive MOD cavity
f) Gingival wall preparation (CEJ location, materials)	bonds and etching-gels	preparation and filling
g) Proximal parts of lateral wall preparation	9 Temporary fillings - presentation,	(maxilla or mandible,
h) cusps reconstructions 5. Stages of cavity preparation by Black,	application	molar), filling sandwich
6. resistance and retention form, how to get the	10 Liner- when to use	or composite
retention		4 Cavity preparation
7. The corresponding angles of preparation and filling		class II-type of simple
in the application of amalgam		and composite filling
8. basic information about materials and amalgam GI		5 Before completing
9. Preparation for amalgam and cement GI		the final fill temporary
10. Instruments for cavity preparation: chisel, enamel trimmers.		
11. Matrices and retainers - types and application,		
wedges. Multisurface cavity preparation and		
restoration		
a. Cusp and tooth fracture		
b. Proximal point – problems and its solutions		



c. Reconstruction of the tooth with cusp fracture	
12. Sandwich technique	
a. indications	
b. closed and opened technique	
c. materials	
13 Matrices and retainers - types and application,	
wedges	
14. Biomechanics of teeth and materials	
15. Composites and GI – clinical technique, material	
and teeth preparation, layer technique, adhesion,	
advantages and disadvantages	
16. Dental materials – classification, advantages and	
disadvantages	
17. Bonding agents – generations	
18. Additional materials	
18. Temporary materials - classification, advantages	
and disadvantages	
9. Class II cavities , Class III, Composites	
Introduction Demonstration Practica	

- 1. Caries morphology of Class III
- 2. Steps of Class III cavities preparation
- a) Outline form and prevention of nearest tooth
- b) Conventional and adhesive cavity preparation for Class III
- c) factors determined cavity outline, resistance and retention shape
- d) adhesive preparation
- 3) Matrices and retainers types and application, wedges, proximal point, tooth shape
- 4) Placement and removal technique for rubber dam
- 5) Composites colors, optical properties of enamel and dentin, layer technique, consistency of materials, enamel and dentin colors
- 6) Finishing and polishing of restoration, occlusion, proximal point
- 7) Mistakes and after effects (proximal point problems and its solutions, overhang, leakiness, occlusal mistakes
- 8) Enamel margin preparation
- 9) Dental cavities classification by Black and SiSta, steps of cavities preparation by modified Black's principles - revision

- Ergonomic posture during operative procedures (distance between dentist eye and tooth)
- 2. Work in upper and lower arch (usage of dental mirror and positioning in upper and lower teeth)
- Rubber dam application in posterior and anterior upper and lower teeth
- 4) Preparation and restoration Class
 III cavities by composite
- 5) Preparation and restoration ClassIII cavities by sandwich technique

- 1 Preparation and filling two cavities class III simple and complex-(maxilla, mandible)
- 2 GI cement filling one for class III (maxilla or mandible) 3 Fill one loss in Class
- III open-sandwich
 method
 recommended canine
 3 Name all stages of
 cavity preparation,
 cavity walls, tools
- 4 Before completing the final fill temporary

Introduction	<u>Demonstration</u>	<u>Practical</u>	
Caries morphology of Class 4 cavities and post-traumatical injuries	Ergonomic posture during operative procedures (distance between deptite over and tooth)	1. Preparation of 2 Class III cavities	
2. Steps of Class IV cavities preparation	between dentist eye and tooth)	(maxilla and mandible) sandwich	
a) Outline form and protection of nearest tooth	2. Work in upper and lower arch (usage of dental mirror and	technique	
b) Conventional and adhesive cavity preparation for Class IV	positioning in upper and lower teeth)	2. Preparation and restoration of 2 Clas IV cavities using	S
c) factors determined cavity outline, resistance and retention shape	3. Explanation of factors influencing on outline, resistance and retention shape in cavity	feathery and chamfer cutting of	
d) adhesive preparation, fractured dental crown bonding	Class 4 preparation; cutting of enamel ridge – feathery and	enamel ridge (incisors in maxilla)	
3) Matrices and retainers - types and application, wedges, proximal point, tooth shape	chamfer, one layered and multiple layered reconstruction	3.Preparation and restoration of 1 Clas IV carious cavity	S
4) Lining materials - clinical technique, materials		4.Preparation and restoration of 1 Clas IV fractured tooth	S
5) Composites – colors, optical properties of enamel and dentin, layer technique, consistency of materials, enamel and dentin colors		5 Names of all steps of cavity preparation, walls and instruments	
6) Finishing and polishing of restoration, occlusion, proximal point			
7) Mistakes and after effects (proximal point – problems and its solutions, overhang, leakiness, occlusal mistakes			
8) Loss of retention – causes, mistakes in bonding and etching, saliva contaminations,			
9) Dental cavities classification by Black and SiSta, steps of cavities preparation by modified Black's principles - revision			





12. Non-carious lesion, fractures		
Introduction	<u>Demonstration</u>	<u>Practical</u>
1.Noncarious lesions - types 2 Erosion, abrasions, abfraction - causes 3 Differentiation of hearing próchnicowymi a Black V- 4 Materials used for fillings dental hard tissue of noncarious lesion 5 Errors and limitations of the design and performance of hard tissue defects noncarious lesion 6 Acute and chronic fractures 7 The differences between Black IV and fractured teeth	1. Ergonomic posture during operative procedures (distance between dentist eye and tooth) 2. Work in upper and lower arch (usage of dental mirror and positioning in upper and lower teeth) 3. Preparation of noncarious lesions 4. Reconstruction of noncarious lesions. 5. Preparation of fractured anterior teeth, direct reconstruction	1 Preparation of two noncarious cavities 2 Filling with composite, glassionomer cement an amalgam 3. Preparation of one front tooth crown fractures and fill method of direct composite

<u>Introduction</u>	<u>Demonstration</u>	<u>Practical</u>
1. Dental caries definition, etiopathology and	1. Rubber dam	1. Rubber dam
clinical symptoms	2. Diagnodent	2. Matrices
2. Dental plaque; Role of saliva; Fluoride as a		
factor in reduced caries activity; Sugar; Time.		
3) Dental cavities classification by Black and		
SiSta		
4) Caries diagnosis.		
5) Dental caries – microscopic and clinical		
manifestations; white spot, progression of		
carious lesions		
5) Dental caries treatment;		
a. dental materials – classification		
b. permanent materials – composites,		
compomers, ormocers, amalgam, GI, applicable		
to specific types of cavities, composition,		
advantages, disadvantages		
3. Temporary fillings- types, application,		
composition, advantages, disadvantages		
4. Lining-types, application, defects,		
advantages, disadvantages - when we apply		
liner		

14. Credit of course. Test and essay			
<u>Introduction</u>	<u>Demonstration</u>	<u>Practical</u>	
1. Test and essay of cariology	Preparation and construction of	Preparation and	
2. Inlays, onlays	inlay (Class II, composite, direct	construction of inlay	y
a. Indications and contraindications	restoration)	(Class II, composite,	
b. Advantages and disadvantages	CAD/CAM presentation	direct restoration)	
c. Materials		CAD/CAM	
d. Preparation		preparation	
3. The rules of hygiene when working with a			
patient:			
a. Cross infection			
b. Desinfection and sterilization			
c Conservation (dental unit, handpieces)			
d. The patient and the doctor as a potential			

15. Composites, Credit of course "Pre-clinical conservative dentistry" based on practical skill and theoretical knowledge

Introduction	<u>Demonstration</u>	<u>Practical</u>	
1. Test of cariology - repetition		Credit of course - 14 carious lesions –preparation and restoration - including 2 x BL I (simple and complex), 4 x BI II (simple, complex, MOD, MOD), 2 x BI III-simple, complex, x BI IV (including 1 fractured), 4 x BI V, 4 noncarious lesions, 1 fissure and sealing methods and PRR I and PRR II.	2

Other

source of infection

e. Protection of dentist and patient

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.

- 3. Kidd E.A.M.. Joyston-Bechal S.: Essentials of dental caries. 3 ed. Oxford University Press, O Additional literature and other materials (no more than 3 items)
- 1.. Powers J.M., Wataha J.C. Dental Materials: Properties and Manipulation, Mosby 2012

Didactic resources requirements (e.g. laboratory, multimedia projector, other...) multimedia projector, phantoms (simulated patient), models, camera, a local computer network

Preliminary conditions (minimum requirements to be met by the student before starting the module/course) Student should know the anatomy and histology of teeth based on subjects from the I 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 med by the student to pass it and criteria for specific grades)

Presence on seminars and classes in accordance with the rules of study and rules of procedures of the Department of Conservative Dentistry and Pedodontics. Admission for crediting is based on the implementation of certain procedures (that is: 14 cavities according to Black, and 4 cavities of non caries origin) and the positive evaluation of the oral response (debate, discussion, presentation) and test validation of knowledge.

Precimical dentistry	is the part of the exam allowing student to exercise on clinical OSCE.	

Grade:	Criteria (only for courses/modules ending with an examination)		
Very Good	achievement of learning outcomes covering all relevant aspects		
(5.0)			
Good Plus	achievement of learning outcomes covering all relevant aspects with some		
(4.5)	errors or inaccuracies		
Good	achievement of intended learning outcomes, with omitting some of the less		
(4.0)	important aspects		
Satisfactory Plus	achievement of intended learning outcomes, with omitting some important		
(3.5)	aspects or significant inaccuracies		
Satisfactory	achievement of intended learning outcomes, with omitting some important		
(3.0)	aspects or serious inaccuracies		
	Criteria (only for courses/modules ending with e credit)		
Credit			

Grade:	Criteria (examination evaluation criteria)		
Very Good	achievement of learning outcomes covering all relevant aspects		
(5.0)			
Good Plus	achievement of learning outcomes covering all relevant aspects with some		
(4.5)	errors or inaccuracies		
Good	achievement of intended learning outcomes, with omitting some of the less		
(4.0)	important aspects		
Satisfactory Plus	achievement of intended learning outcomes, with omitting some important		
(3.5)	aspects or significant inaccuracies		
Satisfactory	achievement of intended learning outcomes, with omitting some important		
(3.0)	aspects or serious inaccuracies		
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Full name	Degree/scienti fic or professional title	Discipline	Performed profession	Form of classes
Michał Biały	BDS	Dentistry	Dentist	classes
Magdalena Wirzman	BDS	Dentistry	Dentist	seminars

Date of Syllabus development

Syllabus developed by

23.09.2020

...Magdalena Wirzman...



	Signature of Head of teaching unit
	Prof. Maciej Dobrzyński, PhD,DSc
Signature of Faculty Dean	