



Distance learning (asynchronous)																		
Summer Semester																		
Direct (contact) education	5	9		46													90	
Online learning (synchronous)																		
Online learning (asynchronous)																		
TOTAL per year:																		
Direct (contact) education	5	9		46													90	
Online learning (synchronous)																		
Online learning (asynchronous)																		
Educational objectives (max. 6 items)																		
C1. Introduce the students to dental materials and their properties.																		
C2. Introduce the students to dental material processing technologies.																		
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 <i>**enter the abbreviation</i>						
W 01	C.W.25	1. Defines the basic concepts of dental materials. 2. Defines the types of dental materials. 3. Describes the primary and secondary materials in dental prosthetics. 4. Describes advantages and disadvantages of different dental materials. 5. Explains methods of processing of dental materials.					Oral response (F) Quizzes (F) Written examination (S)					L, SE, MC						
W 02	C.W.24																	
W 03	C.W.24																	
W 04	C.W.24																	
W 05	C.W.25																	



W 06	C.W.25	6. Knows the rules of the organization of a technical workshop.		
U 01	C.U13	1. The student uses the tools and laboratory equipment.	Examination of the work (F)	SE, MC
U 02	C.U11	2. Able to select appropriate materials for the basic laboratory work.		
U 03	C.U13	3. Performs basic laboratory work.		
U 04	C.U13	4. Able to perform technological procedures.		
K 01 K 02		1. Work in a group of students. 2. Take part in practical tasks.	Evaluation of students' attitude during classes (F)	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 (class participation, activity, preparation, etc.)	Student Workload (h)
1. Contact hours:	60
2. Online learning hours (e-learning):	0
3. Student's own work (self-study):	90
Total student's workload	150
ECTS points for module/course	6

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

No	Lectures
1	1.Genreal classes of Dental Materials 2.Physico-mechanical Properties of Dental Materials 3. Biocompatibility of Dental materials
2	1. Impression Materials



3	1. Acrylic Denture Base Resins	
4.	1. Dental Ceramics	
5.	1. Dental Alloys 2. Dental Investments 3. Joining techniques of ceramic covering of the alloy surfaces	

Seminars

1. Thermoplastics materials.
2. Flexible materials.
3. Composites.

Practical classes

Nr.	Subject and practical work
1.	Regulation and organization of classes. General acknowledging of dental laboratory equipment and organization of dental laboratory.
2.	Gypsum products and isolating materials. Demonstration of the way of using tools. Performance of gypsum cubes of two kinds of gypsum (dim. 3x3x3cm and 1,5x1,5x1,5cm), trimming. Evaluation of the student's work
3.	Reversible and irreversible flexible dental impression materials. 1) Measurement of the total setting time for alginate impression material. 2) Taking the impressions of full-arch phantoms. 3) Making the gypsum model, trimming. Evaluation of the student's work
4.	Reversible and irreversible rigid dental impression materials. Impression trays. 1) Preparation of impression trays (adhesive layer). 2) Low viscosity-high viscosity impression with silicone materials. 3) Measurement of total setting time for silicones and polyether impression materials. Evaluation of the student's work
5.	Dental waxes – type of waxes properties and applications. Isolating materials for Acrylic denture base resins. Performance of model wax cube (dim. 1x1x1cm) for acrylic base resins polymerization. Evaluation of the student's work



6.	Acrylic denture base resins – heat-curing. 1) Initial polymerization of acrylic resins. 2) Placing acrylic resin in the mold of flask. 3) Compressing and placing flask in the polymerization frame. 4) Short – time polymerization. Evaluation of the student's work
7.	Acrylic denture base resins – self-curing. Performance of self-curing acrylic resin baseplate on the edentulous maxillary or mandibular models. Evaluation of the student's work
8.	Acrylic denture base resins – self-curing. Performing of repair of broken acrylic baseplate. Evaluation of the student's work.
9.	Finishing and polishing. Finishing and polishing of all acrylic student's manual works. Evaluation of the student's work.
10.	Dental alloys, thermoplastic and composite materials used in dentistry. 1. Demonstration of making occlusal splint base from Erkodur. 2. Demonstration of making the second part of the occlusal splint with light-cured material.
11.	Make up week.
12.	Final test.
Other -	
Basic literature (list according to importance, no more than 3 items) 1. John M. Powers., John C. Wataha: Dental Materials: Foundations and Applications, 11th edition, Elsevier 2016. 2. John M. Powers., John C. Wataha: Dental Materials, Properties and Manipulation, 10th edition, Mosby 2012.	
Additional literature and other materials (no more than 3 items) 1. Marcia Gladwin, Michael Bagby: Clinical Aspects of Dental Materials Theory, Practice and Cases ISBN – 2nd ed., Philadelphia: Lippincott Williams & Wilkins, 2009. 2. Kenneth J Anusavice, Phillips' Science of Dental Materials, 11th Ed. Saunders 2003.	
Didactic resources requirements (e.g. laboratory, multimedia projector, other...) Phantom room, dental lab, multimedia projector, computer, laboratory equipment, phantoms.	



<p>Preliminary conditions (minimum requirements to be met by the student before starting the module/course) Medical uniform, boots and helmet variables. Practical activities, examination of the work, written examination.</p>
<p>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)</p> <p>Pass of the manual training and final test (multiple choice test, 20 questions, 60% to pass) – at the end of semester, summarizing assessment. The credit for the course is a part of the exam from the Preclinical Dentistry.</p>

Grade:	Criteria (only for courses/modules ending with an examination)
Very Good (5.0)	
Good Plus (4.5)	
Good (4.0)	
Satisfactory Plus (3.5)	
Satisfactory (3.0)	
	Criteria (only for courses/modules ending with e credit)
Credit	Pass manual training and final test (multiple choice test, 20 questions, 60% to pass) – at the end of semester, summarizing assessment. The credit for the course is a part of the exam from the Preclinical Dentistry.

Grade:	Criteria (examination evaluation criteria)
Very Good (5.0)	
Good Plus (4.5)	
Good (4.0)	
Satisfactory Plus (3.5)	
Satisfactory (3.0)	
Unit realizing the subject	Department of Experimental Dentistry
Unit address	ul. Krakowska 26, 50-425 Wrocław



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Person responsible for module	Prof. dr hab. n. med. M. Więckiewicz
Coordinator	Prof. dr hab. n. med. M. Więckiewicz
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List of persons conducting specific classes				
Full name	Degree/scientific or professional title	Discipline	Performed profession	Form of classes
Mieszko Więckiewicz	Prof. dr hab.	Medical science	dentist	MC
Wojciech Florjański	Dr	Medical science	dentist	MC
Andrzej Małysa	Dent.	Medical science	dentist	SE, L

Date of Syllabus development

21.09.2020 r.

Syllabus developed by

Dr n. med. Joanna Smardz

Signature of Head of teaching unit

Prof. dr hab. Mieszko Więckiewicz

Signature of Faculty Dean

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