



Prosthetic dentistry

1. IMPRINT	
Academic Year	2023/2024
Department	Faculty of Dental Medicine
Field of study	English Dentistry Division
Main scientific discipline	Medical sciences
Study Profile	General academic
Level of studies	Uniform MSc
Form of studies	Full-time program
Type of module / course	Obligatory
Form of verification of learning outcomes	Exam
Educational Unit / Educational Units	Department of Prosthodontics St. Blinieckiego str. 6, 02-097 Warsaw Phone: 22 116 64 70 Mail: katedraprotetyki@wum.edu.pl

Head of Educational Unit / Heads of Educational Units	Prof. Jolanta Kostrzewa-Janicka, DDS, PhD
Course coordinator	Prof. Jolanta Kostrzewa-Janicka, DDS, PhD, St. Binieckiego str. 6, 02-097 Warsaw Phone: 22 116 64 70 Mail: katedraprotetyki@wum.edu.pl
Person responsible for syllabus	Krzysztof Majchrzak, DDS, PhD Mail: Krzysztof.majchrzak@wum.edu.pl
Teachers	Prof. Jolanta Kostrzewa, DDS, PhD jolanta.kostrzewa-janicka@wum.edu.pl Kamila Wróbel-Bednarz DDS, PhD kamila.wrobel@wum.edu.pl Magdalena Rączkiewicz DDS mrackiewicz@wum.edu.pl , Marta Jaworska, DDS, PhD marta.jaworska-zaremba@wum.edu.pl Piotr Stendera DDS, PhD pstendera@wum.edu.pl Mariusz Cierech DDS, PhD mcierech@wum.edu.pl Krzysztof Majchrzak, DDS, PhD, krzysztof.majchrzak@wum.edu.pl Marcin Szerszeń, DDS mszerszen@wum.edu.pl Marcin Kubani mkubani@wum.edu.pl

2. BASIC INFORMATION

Year and semester of studies	V, IX and X semester	Number of ECTS credits	10
FORMS OF CLASSES		Number of hours	ECTS credits calculation
Contacting hours with academic teacher			
Lecture (L)		0	
Seminar (S)		15	0,5
Discussions (D)			
e-learning (e-L)			
Practical classes (PC)		125	4,5
Work placement (WP)			
Unassisted student's work			
Preparation for classes and completions		150	5

3. COURSE OBJECTIVES

O1	Acquiring knowledge of the morphology and physiology of stomatognathic system in terms of interdisciplinary
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	rehabilitation, taking into account occlusion in individual prosthetic restorations depending on the stage of the patient's individual development.
O2	Acquiring knowledge about planning and preparation for prosthetic treatment, establishing an individual treatment plan and multi-specialist cooperation in holistic dental care, including the correct keeping of medical records
O3	Acquiring knowledge about the types of prosthetic restorations, indications and contraindications to their use as well as clinical and laboratory procedures in the implementation of these restorations, including procedures in the field of aesthetic dentistry and implantology
O4	Acquiring the ability to choose dental materials when providing all types of prosthetic restorations
O5	Acquisition of clinical management skills in simple clinical cases of prosthetic rehabilitation of patients with morphological disorders of the stomatognathic system, design of prosthetic restorations and cooperation with technician
O6	Acquiring the ability to diagnose functional disorders of the stomatognathic system and treatment algorithms depending on the type of disorder.
O7	Preparing students for independent practice in the field of prosthetic rehabilitation of patients and interdisciplinary treatment of patients in a multidisciplinary team, taking into account the doctor's behavior pattern, the way of

4. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING

Code and number of effect of learning in accordance with standards of learning	Effects in time
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Knowledge – Graduate* knows and understands:

F.W1.	occlusal norms at various stages of individual development and deviations from the norms
F.W2.	mechanisms leading to organ and systemic pathologies (including infectious, invasive, autoimmune, immunodeficiency, metabolic and genetic diseases)
F.W10.	indications and contraindications for treatment with the use of dental implants;
F.W11.	indications and contraindications for esthetic dentistry procedures;
F.W14.	causes and rules of conduct in the case of complications of the stomatognathic system diseases
F.W16.	methods of rehabilitation of the masticatory system

Skills– Graduate* is able to:

B.U1.	relate chemical phenomena to the processes taking place in the oral cavity;
B.U2.	interpret physical phenomena occurring in the masticatory organ
C.U11.	select restorative, prosthetic and bonding biomaterials based on the properties of the materials and clinical conditions;

C.U12.	reproduce anatomic occlusal relations and analyze the occlusion;
C.U13.	design prosthodontic restorations in accordance with the principles of their laboratory preparation;
D.U5.	take actions to improve the patient's quality of life and prevent its deterioration in the future;
E.U11.	diagnose headaches and face pains as well as neurological diseases of adults and children that pose problems in dental practice;
F.U1.	conduct a medical interview with the patient or his family;
F.U2.	conduct a dental physical examination of the patient;
F.U3.	explain to the patient the essence of his ailments, establish the treatment method confirmed by the patient's informed consent and the prognosis;
F.U6.	interpret the results of additional tests and consultations;
F.U7.	determine indications and contraindications for a specific dental procedure;
F.U9.	proceed in the event of general and local complications during and after dental procedures;
F.U10.	prescribe medications taking into account their interactions and side effects;
F.U11.	know the rules of conduct in the event of general and local complications during dental procedures and after dental procedures
F.U16.	use appropriate medications during and after dental surgery to relieve pain and anxiety;
F.U22.	perform prosthodontic rehabilitation in simple cases including clinical and laboratory procedures;

* In appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019 „graduate”, not student is mentioned.

5. ADDITIONAL EFFECTS OF LEARNING (non-compulsory)	
Number of effect of learning	Effects of learning i time
Knowledge – Graduate knows and understands:	
K1	
K2	
Skills– Graduate is able to:	
S1	
S2	
Social Competencies – Graduate is ready for:	
SC1	

SC2	
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6. CLASSES		
Form of class	Class contents	Effects of Learning
Seminars	S1 Topic: Patient Examination - interview, extraoral and intraoral examination, additional tests - components of the treatment plan. Errors made during the examination and treatment planning stage.	F.W1., F.W2., F.W10., F.W11., F.W14., F.W16.
	S2 Topic: Principles of Occlusion, Bite Standards at Different Stages of Individual Development, and Deviations from Standards - the significance of occlusion in prosthetic treatment, jaw articulation states, determinants of occlusion.	F.W1., FW2., F.W10., F.W11., F.W14., F.W16.
	S3 Topic: The Use of Articulators and Facebows in Diagnostic and Prosthetic Treatment - types of articulators and facebows used in diagnostic and prosthetic treatment. Definitions, structure, functions.	F.W1., FW2., F.W10., F.W11., F.W14., F.W16.
	S4 Topic: Clinical and Laboratory Procedures in Complete Denture Fabrication - definition, indications, procedural stages, possible complications.	F.W1., FW2., F.W10., F.W11., F.W14., F.W16.
	S5 Topic: Clinical and Laboratory Procedures in Partial, Removable Denture Fabrication - definition, indications, contraindications, types of prosthetic replacements, procedural stages, possible complications.	F.W1., FW2., F.W10., F.W11., F.W14., F.W16.
	S6 Topic: Clinical and Laboratory Procedures in Removable Partial Denture Fabrication - definition, indications, contraindications. Structural elements, procedural stages, possible complications.	F.W1., FW2., F.W10., F.W11., F.W14., F.W16.
	S7 Topic: Clinical and Laboratory Procedures in Fixed Prosthesis Fabrication - crown-root inlays. Definition, indications, contraindications, types. Procedural stages, possible complications.	F.W1., FW2., F.W10., F.W11., F.W14., F.W16.
	S8 Topic: Clinical and Laboratory Procedures in Fixed Prosthesis Fabrication - crowns. Definition, indications, contraindications, types. Procedural stages, tooth abutment preparation, impressions, temporary restorations, cementation, possible complications.	F.W1., FW2., F.W10., F.W11., F.W14., F.W16.
	S9 Topic: Clinical and Laboratory Procedures in Fixed Prosthesis Fabrication - bridges. Definition, indications, contraindications, types. Procedural stages, tooth abutment preparation, impressions, temporary restorations, cementation, possible complications.	F.W1., FW2., F.W10., F.W11., F.W14., F.W16.
	S10 Topic: Disorders of the Temporomandibular System (TMS) - classification, therapeutic procedures. Definition, classification, patient diagnostic principles, indications for therapy initiation. Symptoms and consequences of TMS disorders - therapeutic procedures.	F.W1., FW2., F.W10., F.W11., F.W14., F.W16.
	S11 Topic: Indications and Contraindications for Treatment Using Dental Implants. Definition, characteristics, types of implants and implant connectors. Indications, contraindications for implant treatment, types of restorations. Clinical procedures, possible complications.	F.W1., FW2., F.W10., F.W11., F.W14., F.W16.

	<p>S12 Topic: Indications and Contraindications for Aesthetic Dentistry Procedures. Therapeutic goals and functions of modern dental prosthodontics, including aesthetic dentistry. Patient examination and treatment planning. Interdisciplinary patient preparation. Types of procedures and restorations.</p> <p>S13 Topic: Therapeutic Approaches for Pediatric Patients. Objectives of prosthetic treatment for pediatric patients. Causes, classification of stomatognathic system disorders. Age categories and prosthetic solutions for different age groups.</p> <p>S14 Topic: Interdisciplinary Treatment. Treatment planning and preparation for prosthetic rehabilitation with consideration of interdisciplinary consultations. Indications, clinical cases. Sequence of procedures, protocols. Errors made during the planning stage.</p> <p>S15 Topic: Photography and Digitalization in Prosthetic Treatment of Patients. Photography - procedural algorithms, application of digitalization in the planning and prosthetic rehabilitation stages.</p>	<p>F.W1., FW2., F.W10., F.W11., F.W14., F.W16.</p> <p>F.W1., FW2., F.W10., F.W11., F.W14., F.W16.</p> <p>F.W1., FW2., F.W10., F.W11., F.W14., F.W16.</p> <p>F.W1., FW2., F.W10., F.W11., F.W14., F.W16.</p>
Exercises	<p>E1-E34. Topic: Prosthetic Rehabilitation of Patients Using Various Types of Prosthetic Restorations Based on Indications, Prosthetic Foundation Condition, and Patient Age.</p> <p>The exercises take place twice a week, with clinical sessions lasting for 4 instructional hours. The thematic focus of this exercise cycle is the prosthetic rehabilitation of patients (in a holistic approach) using various types of prosthetic restorations, considering indications, changes within the prosthetic foundation, general health status, and patient age. We discuss the optimal selection of prosthetic restorations under specific prosthetic foundation conditions, utilizing all available prosthetic options. Additionally, we explore implant treatment with OVD-type prostheses, interdisciplinary treatments, and the diagnosis of functional disorders of the masticatory system (patient/phantom).</p> <p>E35. Topic: High-Fidelity Simulator Exercises - Learning the Preparation of Abutments for Porcelain-Fused-to-Metal Bridges (Teeth 24-26). Comparing Prepared Teeth with a Benchmark Model.</p> <p>Educational Contents: E1 Entrance Examination. E2-E6 Patient examination, analysis of the morphological and functional state of the masticatory system, and additional tests. Preparation of diagnostic models, facebow registration, analysis of models on an articulator. Presentation and discussion of possible treatment plans, determining the optimal treatment plan considering indications and contraindications for using specific prosthetic restorations. E7-E15 Examination of edentulous patients, analysis of the morphological and functional state of the masticatory system. Indications for additional tests. Clinical and laboratory procedures for complete denture fabrication, including various stages and collaboration within the therapeutic team. Follow-up care. Stomatopathies - classification and treatment. E16-E28 Examination of patients, analyzing the morphological and functional state of the masticatory system, considering the type of disorders, classification of deficiencies, changes within the prosthetic foundation, overall health, and patient age. Indications for additional</p>	<p>B.U1, B.U2, C.U11, C.U12, C.U13, D.U5, E.U11, F.U1, F.U2, F.U3, F.U6, F.U7, F.U9, F.U10, F.U11, F.U16, F.U22</p> <p>B.U1., B.U2., C.U11., C.U12., C.U13., D.U5., E.U11., F.U1., F.U2., F.U3., F.U6., F.U7., F.U9., F.U10., F.U11., F.U16., F.U22.</p> <p>C.U12., C.U13., D.U5., F.U1., F.U2., F.U3., F.U6., F.U7., F.U9., F.U10., F.U11., F.U16., F.U22.</p> <p>B.U1., B.U2., C.U11., C.U12., C.U13., D.U5., E.U11., F.U1., F.U2., F.U3., F.U6., F.U7., F.U9., F.U10., F.U11., F.U16., F.U22.</p>

	<p>tests. Preprosthetic patient preparation. Clinical and laboratory procedures for removable prostheses, including various stages depending on the type and design of the prosthetic restoration (removable partial dentures, immediate dentures, removable partial denture with framework, OVD prostheses). Collaboration within the therapeutic team. Follow-up care. Repairs of removable prostheses. E29-E33 Work with patients or on a phantom.</p> <p>Examination of patients, analyzing the morphological and functional state of the masticatory system, considering the type of disorders, classification of deficiencies, changes within the prosthetic foundation, overall health, and patient age. Indications for additional tests.</p> <p>Preprosthetic patient preparation. Clinical and laboratory procedures for fixed prostheses, including various stages depending on the type and design of the prosthetic restoration. Collaboration within the therapeutic team. Follow-up care.</p> <p>E34-E35 Diagnosis of functional disorders of the masticatory system. Patient examination, analysis of the morphological and functional state of the masticatory system, and additional tests. Preparation of diagnostic models, facebow registration, analysis of models on an articulator. Differential diagnosis. Presentation of the diagnosis according to the current classification, discussion of possible treatment plans, considering occlusal therapy. Initial therapeutic steps.</p>	<p>B.U1., B.U2., C.U11., C.U12., C.U13., D.U5., E.U11., F.U1., F.U2., F.U3., F.U6., F.U7., F.U9., F.U10., F.U11., F.U16., F.U22.</p> <p>B.U1., B.U2., C.U11., C.U12., C.U13., D.U5., E.U11., F.U1., F.U2., F.U3., F.U6., F.U7., F.U9., F.U10., F.U11., F.U16., F.U22.</p>
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7. LITERATURE
Obligatory
<ol style="list-style-type: none"> 1. I. Hayakawa: Principles and Practices of Complete Dentures. Quintessence Publ. Co Ltd 2001. 2. H.T. Shillingburg: Fundamentals of Fied Prosthodontis. Quintessence Publ. Co Ltd 1997. 3. A.B. Carr, G.P Mc Ginvey, D.T. Brown: McCracken's Removable Partial Prosthodontics. St. Louis: Mosby 2004. 4. R.G. Craig, J. M Powers: Restorative Dental Materials. Mosby 2002.
Supplementary
<ol style="list-style-type: none"> 1. R.M. Basker, J.C. Davenport: Prosthetic Treatment of the Edentulous Patient. Blackwell Munksgaard 2002. 2. J.A. Hobkirk, R.M. Watson, L. Searson: Introducing Dental Implants. Churhill Livingstone 2003

8. VERIFYING THE EFFECT OF LEARNING		
Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
F.W1, F.W2, F.W10, F.W11, F.W14, F.W16	Seminar evaluations are based on attendance, theoretical preparation, and active participation in the seminars.	Assessment criteria 2.0 (failed) <60% 3.0 (satisfactory) 60-65% 3.5 (rather good) 66-70% 4.0 (good) 71-75% 4.5 (more than good) 76-80% 5.0 (very good) > 80%
B.U1, B.U2, C.U11, C.U12, C.U13, D.U5, E.U11, F.U1, F.U2, F.U3, F.U6, F.U7, F.U9, F.U10, F.U11, F.U16, F.U22	<p>The completion of practical exercises is based on the following criteria:</p> <p>Theoretical Preparation for Clinical Sessions: Students are evaluated based on their theoretical preparation for clinical sessions.</p> <p>Active Participation: Students' active involvement in clinical sessions is assessed.</p> <p>Evaluation by the teacher: Teachers assess students in the following areas:</p>	Assessment criteria Written tests: 2.0 (failed) <60% 3.0 (satisfactory) 60-65% 3.5 (rather good) 66-70% 4.0 (good) 71-75% 4.5 (more than good) 76-80% 5.0 (very good) > 80% Oral tests:

	<p>Correct execution of therapeutic procedures. Theoretical knowledge (oral and written quizzes on various aspects of dental prosthetics). Theoretical preparation for clinical sessions, which includes oral examination of preparation for each clinical procedure. Attitude towards patients, assistants, and the medical team. Attendance at all exercises is mandatory. Even if a student has a valid reason for absence, they are required to make up for missed exercises.</p> <p>Additional guidelines include:</p> <ol style="list-style-type: none"> 1. Lack of preparation for three exercises in a semester will result in a lower final grade for the academic year. 2. Absences must be made up for, after consultation with the teacher, even if a medical certificate is provided. 3. Any behavior that violates the exercise rules, such as being late, not wearing an identification badge, or using a mobile phone during exercises, will result in a notation by the teacher indicating a lack of preparation. Three such notations will result in a lower final grade for the academic year, as mentioned in point 1. 4. Preparing a presentation or a review article based on current literature allows students to receive a "+," which will <ul style="list-style-type: none"> • either offset the lack of preparation mentioned in point 3 or • provide an additional point for one of partial tests during the semester. 	<p>2.0 (failed) 3.0 (satisfactory) 3.5 (rather good) 4.0 (good) 4.5 (more than good) 5.0 (very good)</p>
	<p>The passing grade for the fifth year consists of three components:</p> <p>Theoretical knowledge - oral or written tests. Practice (clinical work with patients, performing various types of prosthetic procedures). Attitude towards patients, assistants, and technicians. The grade is an average of points 1, 2, and 3.</p> <p>Final Diploma Practical Examination The assessment of clinical skills acquired during practical teaching in the Department of Prosthetic Dentistry in the third, fourth, and fifth years is done through the verification of learning outcomes in the categories of knowledge and skills related to communication and manual procedures, as well as procedural algorithms. This assessment involves direct observation of students demonstrating their skills during a traditional clinical exam, which includes performing a procedure on a patient and a theoretical component consisting of oral responses to two randomly selected questions. Alternatively, it can also be conducted through a standardized Objective Structured Clinical Examination (OSCE).</p>	<p>Assessment criteria Written tests: 2.0 (failed) <60% 3.0 (satisfactory) 60-65% 3.5 (rather good) 66-70% 4.0 (good) 71-75% 4.5 (more than good) 76-80% 5.0 (very good) > 80%</p> <p>Oral tests: 2.0 (failed) 3.0 (satisfactory) 3.5 (rather good) 4.0 (good) 4.5 (more than good) 5.0 (very good) 5.0- student interested in the subject, theoretical basics mastered to a very good degree, with good manual skills, well-mannered, correct approach to the patient, technician, teacher. He applies the acquired knowledge in practice, makes correct diagnoses, logically formulates conclusions regarding the planning and course of treatment. 4.5- meets the above criteria to an over good degree 4.0 - meets the above criteria to a good degree 3.5- meets the above criteria to a fairly good degree</p>

		3.0- meets the above criteria sufficiently 2.0- insufficient knowledge of the learning outcomes, does not meet the above criteria
	<p>Final Diploma Test Examination The theoretical test exam consists of 100 multiple-choice questions. A minimum score of 60% is required to pass the theoretical test exam. The mode of the exam, whether online or in-person, depends on the epidemiological situation.</p>	The passing grade is 60%, and grades are determined after evaluating the test results.
	<p>Final Diploma Exam Final grade The final assessment is the average of grades from:</p> <ul style="list-style-type: none"> • Exercises in the fourth and fifth years (20%) • Practical exam (30%) • Theoretical test exam (50%) <p>Failure in any part of the diploma exam (clinical exam or test exam) results in receiving an fail grade and the need to retake the diploma exam in a second session.</p> <p>An earlier date for the oral diploma exam is possible for students who have achieved an average of 4.8 in the fourth and fifth years, and have obtained a grade of 5.0 in exercises in the fifth year. Additionally, they must have participated in the activities of a student scientific association and published a paper with a successful outcome. This session is considered the first, replacing the test. The material for the exam covers topics from lectures, seminars, and exercises conducted in the third, fourth, and fifth years.</p> <p>The mode of the exam, whether online or in-person, depends on the epidemiological situation.</p>	

9. ADDITIONAL INFORMATION

1. The person responsible for conducting the curriculum in the fifth year is Dr. Krzysztof Majchrzak DDS, PhD.
2. Student Scientific Association - Supervisors: Dr. Kamila Wróbel-Bednarz, MD, PhD - kwrobel@wum.edu.pl, Dr. Marcin Szerszeń, MD, PhD - mszerszen@wum.edu.pl.
3. Information about the diploma exam (see table, point 8).
4. All absences from exercises must be made up for after prior arrangement with the supervising assistant regarding the date and form (duty).
5. Students should wear protective clothing (including separate footwear) and have an ID badge with information about their student status, year, name, and surname. Bags should be stored in lockers located in clinical rooms.
6. Non-compliance with safety and hygiene rules is not permitted.
7. Please arrive punctually for classes. Being more than 15 minutes late is considered an absence.
8. Using mobile phones during classes and in clinical rooms is not allowed.
9. During the diploma test exam, students should leave all accessories and devices (phones, watches, headphones, bags) in the designated area.

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ATTENTION

The final 10 minutes of the last class in the block/semester/year should be allocated to students' Survey of Evaluation of Classes and Academic Teachers