Prosthetic dentistry

1. IMPRINT	
Academic Year	2023/2024
Department	Faculty of Dental Medicine
Field of study	English Dentistry Division
Main scientific discipline	Medical science
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	completion
Educational Unit / Educational Units	Department of Prosthetic Dentistry St. Binieckiego 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 Phone: 22 116 64 70 Mail: krzysztof.majchrzak@wum.edu.pl
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2. BASIC INFORMATION

Year and semester of studies	IV year, VII and VIII semester	**Number of ECTS credits**	7

FORMS OF CLASSES **Contacting hours with academic teacher**	**Number of hours**	**ECTS credits calculation**
Lecture (L)	16(e- learning)	0,6
Seminar (S)	10	0,3
Discussions (D)		
e-learning (e-L)		
Practical classes (PC)	118	4,7
Work placement (WP)		
Unassisted student's work		
Preparation for classes and completions	35	1,4

3. COURSE OBJECTIVES

O1	Acquisition of knowledge in the field of masticatory system development, morphology and physiology of the stomatognathic system in the aspect of patient examination and planning of prosthetic rehabilitation in simple clinical cases.

O2	Acquisition of knowledge in the field of physical and chemical processes occurring in the human body as well as mechanics and physiology of the masticatory organ in relation to the clinical course of changes and pathological processes occurring within the masticatory organ
O3	Acquiring knowledge regarding planning and preparation for prosthetic treatment, taking into account the principles of prophylactic and therapeutic management in disorders of the stomatognathic system
O4	Acquiring knowledge about types of prosthetic restorations, indications and contraindications for their use as well as clinical and laboratory procedures in the implementation of these 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 skills of talking with the patient, building trust, principles of motivating the patient to health-promoting behaviors, shaping the right attitude and behavioral patterns in relation to the patient and the therapeutic team.

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**
Knowledge – Graduate* knows and understands:	
B.W8.	mechanics of the masticatory apparatus;
C.W23.	dental office equipment and instruments used in dental procedures;
C.W24.	definition and classification of basic and auxiliary dental materials;
C.W25.	composition, structure, method of bonding, properties, purpose and method of using dental materials;
C.W28.	basic clinical procedures for dental hard tissue reconstruction and endodontic treatment as well as methods and technical and laboratory procedures for prosthetic restorations
F.W1.	bite standards at different stages of individual development and deviations from standards;
F.W2.	principles of prophylactic and therapeutic procedures in diseases of the masticatory system at various stages of development;
F.W3.	viral, bacterial and fungal flora of the oral cavity and its importance;
F.W10.	indications and contraindications for treatment with the use of dental implants;
F.W11.	indications and contraindications for cosmetic dentistry treatments;
F.W12.	causes of complications of the stomatognathic system diseases and the principles of management in case of such complications;
F.W14.	methods of masticatory apparatus rehabilitation;

F.W18.	principles of radiological diagnostics;
F.W19.	pathomechanism of the influence of oral cavity diseases on general health;
F.W20.	pathomechanism of the impact of general diseases or therapies on the oral cavity;
F.W21.	prevention of oral disease;
D.W14.	the imperative and pattern of behavior of a doctor and dentist established by the professional self-government of doctors and dentists;
G.W19.	principles of occupational health and safety in dentistry;
G.W27.	principles of medical ethics and deontology, ethical problems of modern medicine resulting from the dynamic development of biomedical science and technologies, as well as the principles of ethical conduct of a dentist;
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.U4.	predict and explain complex pathomechanisms of disorders leading to the development of diseases
C.U5.	analyze the clinical course of diseases in pathological processes;
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
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 the symptoms to the patient, determine the method of treatment confirmed by the patient's informed consent and prognosis
F.U6.	interpret the results of additional tests and consultations;
F.U7.	determine indications and contraindications for a specific dental procedure
F.U9.	provide treatment 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.	keep current patient records, prescribe referrals for tests or for a specialized dental and medical treatment
F.U16.	use appropriate medications during and after dental surgery to relieve pain and anxiety
F.U22.	carry out prosthetic rehabilitation in simple clinical and laboratory cases
E.U11.	diagnose head and face pains and neurological diseases of adults and children that cause problems in dental practice

** 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

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	

6. CLASSES

Form of class	Class contents	Effects of Learning
Lectures VII semester	LECTURE 1: Piotr Stendera DDS, PhD Topic: General characteristics of the prosthetic procedures. Anatomy, physiology and development of the masticatory system in terms of prosthetic treatment. Indications for restoring missing teeth. Application of removable partial dentures and an outline of the technique of their fabrication. Clinical and laboratory management. Discussion of other types of removable dentures. Functioning of the dental office in terms of prosthetic procedures.	B.W8., C.W23., C.W25 C.W28., F.W1., F.W2., F.W3.,
	LECTURE 2: Piotr Stendera DDS, PhD Topic: Making of removable dentures. Detailed discussion regarding particular steps in performing removable dentures. Clinical and laboratory stages. Basic and auxiliary dental materials.	C.W24., C.W25., C.W28.
	LECTURE 3: Piotr Stendera DDS, PhD Topic: Making of of cast metal dentures. Parts of cast metal dentures and their functions. Surveying. Principles of designing of all structural elements.	C.W23., C.W24., C.W28.
	LECTURE 4: Piotr Stendera DDS, PhD Topic: Making of cast metal dentures (continuation). Clinical stages of fabrication of cast metal dentures. Principles of skeletal dentures construction on the basis of parallelometric analysis (surveying)	F.W.3., C.W.23., C.W.24., C.W.28.
	LECTURE 5: Piotr Stendera DDS, PhD Topic: Summary of clinical proceedings in the fabrication of removable dentures. Removable	B.W8., F.W2., F.W3., F.W20., F.W21.

	dentures in prosthetic rehabilitation after surgical procedures. Problems related to the long-term use of dentures LECTURE 6: Piotr Stendera DDS, PhD Topic: The influence of cast metal dentures long-term usage on the stomatognathic system. Examples of different designs of cast metal dentures. Follow-up care. Prevention and treatment of complications. Overview of laboratory devices and materials necessary in fabrication of cast metal dentures. Periotest. LECTURE 7: Piotr Stendera DDS, PhD Topic: Cast metal dentures – video clip. Contents: Presentation of the video clip "Cast metal partial denture". Additional discussion of individual laboratory stages in the fabrication of skeletal dentures. Presentation of modern computer methods that can be used in manufacturing of skeletal dentures.	C.W23., C.W24., C.W28., F.W2., F.W14. C.W23., C.W24., C.W28., F.W2., F.W14.
Lectures VIII semester	Lecture 1: Marta Jaworska, DDS, PhD Topic: Planning and preparation for prosthetic treatment. Characteristics of the anatomy, physiology and changes in the masticatory organ with age in terms of prosthetic rehabilitation. Therapeutic goals and functions of modern dental prosthetics. Clinical examination and pre-prosthetic diagnostics (including radiological). To assess the impact of oral diseases on general health. Mistakes made at the treatment planning stage. Lecture 2: Prof. Jolanta Kostrzewa –Janicka, DDS, PhD Topic: The importance of occlusion in prosthetic treatment Functional and morphological relationships within the masticatory organ. Clinical examination of the masticatory organ before rehabilitation of occlusion. Masticatory organ diagnostics. A detailed discussion of definitions related to masticatory organ. Teeth occlusal contacts in static and dynamic occlusion. Preventive and curative aspects of occlusion analysis. Lecture 3: Krzysztof Majchrzak, DDS, PhD Topic: Immediate dentures. Definition of immediate dentures. Indications. Relative and absolute contraindications. Advantages of using immediate dentures. Treatment planning. Clinical and laboratory management. Follow up care. Presentation of clinical cases. Lecture 4: Krzysztof Majchrzak, DDS, PhD Topic: Prosthetic management after extensive surgical procedures. Epidemiology of head and neck tumors. Carcinogenic factors. General principles of treating head and neck tumors. Morphological and functional disorders in patients after surgeries of facial tumors. Procedure algorithm at the Department of Prosthetic Dentistry. Fabrication of prostheses for patients after surgical procedures. Prophylactic function of prosthetic rehabilitation. Clinical cases. Elements of oncological prophylaxis. Lecture 5: Prof. Jolanta Kostrzewa –Janicka, DDS, PhD Topic: Functional disorders of the masticatory organ. Reminder of the anatomy and physiology of masticatory organ and occlusion. Etiology of temporomandibular diseases (functional disorders within the masticatory system). Diagnostics of the motor system of the masticatory apparatus (clinical examination and additional examinations, including radiological examinations). Classification of temporomandibular diseases. Differential diagnosis. Initial treatment. Prevention of functional disorders of the masticatory organ in terms of its effect on general health. Lecture 6: Prof. Jolanta Kostrzewa –Janicka, DDS, PhD Topic: Treatment	B.W8., C.W28., F.W1., F.W2., F.W3., F.W12., F.W14., F.W21. B.W8., C.W28., F.W1., F.W3., F.W21. C.W28., F.W1., F.W2., F.W3., F.W14., F.W21. B.W8., C.W28., F.W1., F.W2., F.W3., F.W12., F.W14., F.W18., F.W21. B.W8., C.W28., F.W1., F.W3., F.W14., F.W18., F.W21.

	of patients with occlusion disorders. Effects of occlusion disorders - signs of disorders at the level of dental tissues, periodontium, masticatory muscles and temporomandibular joints. Definition of occlusion disorders. Aims of occlusal therapy. Indications for starting occlusal therapy. Pre-prosthetic and prosthetic treatment of patients with occlusion disorders. Presentation of cases of patients with occlusion disorders treated at the Department of Prosthetic Dentistry, Medical University of Warsaw.	C.W28., F.W1., F.W3., F.W14., F.W18.
	Lecture 7: Krzysztof Majchrzak, DDS, PhD Topic: Prosthetic treatment of adolescent patients with congenital defects. Aims of prosthetic treatment of adolescent patients. Interdisciplinary approach of treatment. Division into age categories. Prosthetic solutions in individual age categories. Additional examinations (including radiological examinations). Cleft palate - epidemiology, effect on general health. Clinical cases. Hypodontics - epidemiology, examples of prosthetic procedures. Enamel and dentin structure disorders, a clinical case.	B.W8., C.W28., F.W1., F.W2., F.W3., F.W12., F.W14., F.W21.
	Lecture 8: Krzysztof Majchrzak, DDS, PhD Topic: Prosthetic rehabilitation with overdenture. Definition, types, advantages and disadvantages of OVD prostheses. Indications for use depending on anatomical conditions. Treatment planning with the use of OVD prostheses supported by residual dentition. Clinical examination for OVD prostheses. Retention elements and their assembly. Overdenture supported by intraosseous implants - indications, contraindications. Hygiene rules for OVD prostheses and retention elements. Problems that may occur while using OVD prostheses.	B.W8., C.W28., F.W1., F.W2., F.W3., F.W14., F.W18., F.W21.
	Lecture 9: Bohdan Bączkowski, DDS, PhD Topic: Dental implants. Historical view. Factors influencing the integration of the intraosseous implant. The phenomenon of osseointegration. Characteristics of implants and implantological abutments. Assessment of the bone foundation in terms of long-term use of implants. Techniques of surgical implant placement. Types of loads. Indications and contraindications for implant prosthetic treatment. Treatment planning. Clinical management. Toronto bridge. Aesthetic aspects in implantology treatment. "All on 4" solutions. Summary of the lecture	B.W8., C.W28., F.W1., F.W2., F.W3., F.W10., F.W12., F.W14., F.W18., F.W21.
Seminars (topic of particular seminar will be chosen by teacher responsible for classes)	SEMINAR 1 Topic: Treatment planning and preparation for prosthetic treatment. Therapeutic goals and functions of modern dental prosthetics. Treatment plan (components, conditions for the success of prosthetic treatment). Examination of the patient. Mistakes made at the treatment planning stage. Interdisciplinary preparation of the patient for prosthetic treatment. Influence of oral cavity diseases on general health.	B.W8., F.W1., F.W21., C.U12., F.U6.
	SEMINAR 2 Topic: Occlusion issues in dental prosthetics. The importance of occlusion in prosthetic treatment. Clinical examination (dental and functional targeting masticatory organ). Additional examinations. Mandibular articulation. Parameters of the temporomandibular joints (articular pathway angle, Bennett's angle, Bennett's movement, immediate lateral shift). Occlusal determinants (key features).	C.W23., C.W24., C.W25., C.W28., F.W1., F.W3., F.W14.
	SEMINAR 3: Topic: Face bows and articulators. Purpose of plaster models mounting	F.W2., F.W3., F.W14., C.U11.,

	in articulator. Mandibular movements and ways of describing them. Historical outline of occludators and articulators. Definitions and classification. Construction of the articulator. Parameters used to set articulators. Examples of articulators used today. Function, types and structure of the facebows. Ways of fixing and transferring relations of gypsum models. Using an individually adjustable articulator. Basic and auxiliary materials in dental technology.	F.U6.
	SEMINAR 4: Topic: Partial dentures, repairs and stomatopathies. Partial dentures. (Definition, indications, requirements for non-removable partial dentures, clinical management). Repairs. (Causes of damage to prosthetic restorations, methods of repairing various prosthetic restorations). Stomatopathies. (Definition, causes, factors contributing to the occurrence, symptoms, differentiation, clinical examination, treatment, prophylaxis).	C.W28., C.U11., C.U12., C.U13., F.U6.
	SEMINAR 5: Topic: Parallelometric analysis and design of cast metal dentures. Parallelometric analysis - definition, goals and stages. Construction of a dental surveyor. The stages of analysis and the definitions necessary to carry it out. Types and structure of components of cast metal dentures. Rigid periodontal supports - types and applications. Presentation on examples of clinical works.	B.W8., C.W28., F.W1., F.W2., F.W3., F.W14., F.W21., F.W22., C.U12., F.U6.
	SEMINAR 6: Topic: Cast metal dentures (skeletal prostheses - clinical management, laboratory execution) Cast metal denture - definition, indications and contraindications to perform depending on the structure and function of the stomatognathic system. Structural elements of a skeletal prosthesis. Pre-prosthetic diagnosis. Presentation of subsequent clinical visits in the fabrication of cast metal dentures. Overall health impact assessment. Stages of laboratory performance as a correlated procedure with clinical visits. Master casts and their initial preparation for duplication, including surveying and design.	C.W28., F.W2., F.W3., F.W14., F.W21., C.U11., C.U12., C.U13., F.U6.
	SEMINAR 7: Topic: Prosthetic crowns and methods of cementation. Division of prosthetic crowns. Pre-prosthetic preparation and diagnostics. Preparation of the abutment tooth for the crown. Impressions. Cements, types and characteristics.	C.W28., F.W2., F.W3., F.W14., F.W21., C.U11., C.U12., F.U6.
	SEMINAR 8: Topic: Dental bridges (fixed partial dentures) Definitions, indications, contraindications, division. Components. Span biomechanics. Clinical management from planning to delivery.	F.W3., F.W10., F.W18., F.W21., C.U12., C.U13.
	SEMINAR 9: Topic: Dental posts. The division of dental posts. Assessment of abutment teeth. Planning and diagnostics. Indications and contraindications. Selection of materials.	F.W3., F.W10., F.W14., F.W21., C.U11., C.U12., C.U13, F.U6.
	SEMINAR 10: Topic: Overdenture (OVD) and relines. Definition of OVD prostheses and their influence on stomatognathic functions. Indications and contraindications. Advantages and disadvantages. Types of retention elements for OVD dentures. Clinical procedure in the manufacture of OVD prostheses. Installation of retention elements in the denture.	F.W1., F.W2., F.W3., F.W12., C.U11., C.U12., F.U6.

	Implant prosthetic treatment of edentulous patients with the use of OVD prostheses. Denture relining - definition, methods, indications, contraindications and impact on general health.	
Practical classes E1-E30	Title: Prosthetic Rehabilitation of Patients Depending on Prosthetic Foundation Conditions. Exercises take place once a week, and clinical sessions last for 4 academic hours. The content of the exercises depends on the availability of patients and includes prosthetic rehabilitation of patients (in simple clinical cases) using various types of prosthetic restorations, depending on indications, changes within the prosthetic foundation, the overall health status, and the patient's age. Educational content includes: patient examination, analysis of the morphological and functional state of the masticatory system, and additional examinations; presentation and discussion of possible treatment plans; determination of an optimal treatment plan, taking into account indications and contraindications for the use of specific prosthetic restorations; clinical and laboratory procedures in the execution of these restorations; collaboration within the therapeutic team; and follow-up care. Classes with the use of high-fidelity simulators focus on learning the development of abutments for porcelain-fused-to-metal crowns. E1-E10: Review of knowledge from previous years of study, covering topics related to the mechanics of the masticatory system, dental office equipment, and instruments used in dental procedures, especially prosthetic ones, and in the dental prosthetic laboratory; definitions and classifications of basic and auxiliary dental materials; basic clinical procedures; methods and technical-laboratory procedures for making prosthetic restorations; normal occlusal relationships at different stages of individual development and deviations from normal; principles of preventive and therapeutic procedures in diseases of the masticatory system at different stages of development; viral, bacterial, and fungal flora of the oral cavity and its significance; rehabilitation methods for the masticatory system; principles of radiological diagnostics; prevention of oral diseases; safety and hygiene principles in dentistry; the relationship of chemical phenomena to processes occurring in the oral cavity; physical phenomena occurring in the masticatory system; treatment planning for patients visiting the healthcare facility for the first time; continuation of treatment for established patients; initial clinical stages in the execution of complete removable and extensive partial dentures. E11-E20: Subsequent clinical stages in the execution of complete removable and extensive partial dentures settling in. Familiarization with indications and contraindications for treatment using dental implants; indications and contraindications for performing procedures in the field of aesthetic dentistry; reasons for complications in diseases of the stomatognathic system and principles of management in case of such complications; pathomechanism of the effect of oral diseases on general health; pathomechanism of the effect of general diseases or applied therapies on the oral cavity; the imperative and standard of behavior established by the professional self-government of physicians and dentist-physicians; principles of medical ethics and deontology;	B.W8., B.U1., B.U2., C.W23., C.W24., C.W25., C.W28., F.W1., F.W2., F.W3., F.W14., F.W18., F.W21., G.W19. F.W10., F.W11., F.W12., F.W19., F.W20., D.W14., G.W27.

	ethical issues in contemporary medicine resulting from the dynamic development of biomedical science and technology; and the principles of ethical conduct for a dentist. E21-E30: Subsequent clinical stages in the execution of complete removable and extensive partial dentures settling in. Planning and performing treatment using simple fixed prosthetic restorations. Acquisition and refinement of skills in the following areas: predicting and explaining complex pathomechanisms leading to the development of diseases; analyzing the clinical course of diseases in pathological processes; selecting restorative, prosthetic, and connecting biomaterials based on material properties and clinical conditions; replicating anatomical occlusal conditions and performing occlusal analysis; designing prosthetic restorations in accordance with laboratory manufacturing principles; conducting medical interviews with patients or their families; conducting a dental physical examination of the patient; explaining the nature of the patient's complaints; determining the treatment plan confirmed by the patient's informed consent and prognosis; interpreting the results of additional examinations and consultations; establishing indications and contraindications for performing specific dental procedures; dealing with general and local complications during dental procedures and post-dental procedures; prescribing medications, considering their interactions and side effects; maintaining current patient records; issuing referrals for specialized dental and general medical examinations or treatment; using appropriate medications during and after dental procedures to alleviate pain and anxiety; conducting prosthetic rehabilitation in simple cases, covering clinical and laboratory procedures; diagnosing headaches and facial pain, as well as neurological diseases in adults and children that pose challenges in dental practice.	C.U4., C.U5., C.U11., C.U12., C.U13., E.U11., F.U1., F.U2., F.U3., F.U6., F.U7., F.U9., F.U10., F.U11., F.U16., F.U22.

7. LITERATURE

Obligatory

1. I. Hayakawa: Principles and Practices of Complete Dentures. Quintessence Publ. Co Ltd 2001.
2. H.T. Shillingburg: Fundamentals of Fixed 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

8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
B.W8., B.U1., B.U2., C.W23., C.W24., C.W25., C.W28., C.U4., C.U5., C.U11., C.U12., C.U13., E.U11., F.W1., F.W2.,	Interactive participation in lectures and seminars. Initiating discussions and will to solve problems. Colloquiums from all departments of prosthetic dentistry. Active participation in seminars and lectures. The final grade for the fourth year includes three components: 1. Theoretical knowledge - oral or written test 2. Practice (clinical work with the patient, performing various types of	**Assessment criteria: points 1,2,3. Written tests:** 2.0 (failed) <60% 3.0 (satisfactory) 60-65% 3.5 (rather good) 66-70% 4.0 (good) 71-75%

F.W3., F.W10., F.W11., F.W12., F.W14., F.W18., F.W19., F.W20., F.U1., F.U2., F.U3., F.U6., F.U7., F.U11., F.U16., F.U22., D.W14., G.W19., G.W27.	prosthetic restorations) 3. Way of behavior towards patient, teacher, technician The grade is the average from points 1,2,3.	4.5 (more than good) 76-80% 5.0 (very good)> 80% **Oral tests and points 2,3:** 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 3.0- meets the above criteria sufficiently 2.0- insufficient knowledge of the learning outcomes, does not meet the above criteria
B.W8., B.U1., B.U2., C.W23., C.W24., C.W25., C.W28., C.U4., C.U5., C.U11., C.U12., C.U13., E.U11., F.W1., F.W2., F.W3., F.W12., F.W14., F.W18., F.W21., F.U1., F.U2., F.U3., F.U6., F.U7., F.U9., F.U10., F.U11, F.U16., F.U22.	Evaluation of active participation by the supervising teacher regarding the correctness of medical procedures, theoretical knowledge, attitude towards patients, and assistants. 1. Lack of preparation in 3 exercises during the semester reduces the final grade for the academic year. 2. Absence from exercises must be made up after consulting with the assistant, even in the case of a medical certificate. 3. Behavior that violates exercise regulations, such as arriving late, not wearing an identification badge, using a mobile phone during exercises, etc., results in the assistant recording a lack of preparation, which, when it occurs three times, lowers the final grade for the academic year, as stated in point 1. 4. Preparation of a presentation or review article, based on current literature and available sources, allows for a "+," which either offsets the lack of preparation from point 3 or provides an additional point for the "partial" test during the semester.	

9. ADDITIONAL INFORMATION

Participation in lectures is mandatory. Attendance will be electronically verified. Absence will result in the requirement to prepare a presentation based on current literature covering the topic for which the student was absent.

The topics of seminars vary and depend on patient admissions and availability. Examples of seminar topics are provided for selection by the supervising teacher. Two written examination dates are possible for each test.

All absences must be compensated for in a manner agreed upon with the supervising teacher.

The use of mobile phones during clinical sessions is only allowed after informing the teacher. Proper uniform and identification are required.
Dr. n. med. Krzysztof Majchrzak is responsible for teaching in the fourth year.

The final grade for the diploma examination after the fifth year is the average of grades from:
• Exercises in the fourth and fifth years (20%)
• Practical exam (30%)
• Written exam (50%)

SKN - supervisors: Dr. n. med. Kamila Wróbel-Bednarz: kwrobel@wum.edu.pl, Dr. n. med. Marcin Szerszeń: mszerszen@wum.edu.pl