



Prosthetic dentistry

1. IMPRINT	
Academic Year	2021/2022
Department	Faculty of Dental Medicine
Field of study	English Dentistry Division
Main scientific discipline <i>(in accord with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)</i>	Medical sciences
Study Profile <i>(general academic / practical)</i>	General academic
Level of studies <i>(1st level / 2nd level / uniform MSc)</i>	Uniform MSc
Form of studies	Full-time program
Type of module / course <i>(obligatory / non-compulsory)</i>	Obligatory
Form of verification of learning outcomes <i>(exam / completion)</i>	Completion
Educational Unit / Educational Units <i>(and address / addresses of unit / units)</i>	Department of Prosthodontics 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 (title, First Name, Last Name, contact)	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 (First name, Last Name and contact for the person to whom any objections concerning syllabus should be reported)	Prof. Jolanta Kostrzewa-Janicka, DDS, PhD Krzysztof Majchrzak, DDS, PhD Magdalena Rączkiewicz DDS Mail: Krzysztof.majchrzak@wum.edu.pl	
Teachers	Prof. Jolanta Kostrzewa, DDS, PhD Kamila Wróbel-Bednarz DDS, PhD Magdalena Rączkiewicz DDS Daniel Surowiecki, DDS Marta Jaworska, DDS, PhD Piotr Stendera DDS, PhD Mariusz Cierech DDS, PhD Krzysztof Majchrzak, DDS, PhD, Marcin Szerszeń, DDS	jolanta.kostrzewa-janicka@wum.edu.pl kamilA.Krobel@wum.edu.pl mraczkiewicz@wum.edu.pl daniel.surowiecki@wum.edu.pl marta.jaworska-zaremba@wum.edu.pl pstendera@wum.edu.pl mcierech@wum.edu.pl krzysztof.majchrzak@wum.edu.pl mszerszen@wum.edu.pl

2. BASIC INFORMATION

Year and semester of studies	4 th year, 7 th and 8 th semester	Number of ECTS credits	7
FORMS OF CLASSES		Number of hours	ECTS credits calculation
Contacting hours with academic teacher			
Lecture (L)		24 (e-learning)	0,8
Seminar (S)		10	0,3
Discussions (D)			
e-learning (e-L)			
Practical classes (PC)		110	3,6
Work placement (WP)			
Unassisted student's work			
Preparation for classes and completions		66	2,3

3. COURSE OBJECTIVES

O1	Knowledge acquiring 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.
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O2	Knowledge acquiring 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	Knowledge acquiring regarding planning and preparation for prosthetic treatment, taking into account the principles of prophylactic and therapeutic management in disorders of the stomatognathic system
O4	Knowledge acquiring 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 communication skills with the patient, building trust, learning 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 *(concerns fields of study regulated by the Regulation of Minister of Science and Higher Education from 26 of July 2019; does not apply to other fields of study)*

<p>Code and number of effect of learning in accordance with standards of learning <i>(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)</i></p>	<p>Effects in time</p>
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Knowledge – Graduate* knows and understands:

A.K1.	demonstrates familiarity with structures of the human body: cells, tissues, organs and systems, with particular focus on the stomatognathic system
A.K2.	development of organs and the whole organism, with particular emphasis on the masticatory organ
B.K1.	the role of root and trace elements in processes occurring within the body, with focus on the supply, absorption and transport
B.K8.	mechanics of the masticatory organ
C.K23.	the equipment of a dental surgery and the instruments used in dental procedures
C.K24.	the definition and classification of the primary and auxiliary dental materials
C.K25.	the composition, construction, manner of binding, properties, designation and methods of using dentistry materials
C.K28.	the basic clinical procedures related to reconstruction of hard tooth tissues, endodontic treatment as well as methods, technical and laboratory procedures related to prosthetic restorations
D.K14.	the imperative and model of the doctor's behaviour, adopted by the professional self-government of doctors and dentists
F.K1.	the occlusal norms at different stages of individual development and deviations from the norms
F.K2.	the mechanisms leading to organ and system pathologies (including infectious, invasive, autoimmune, resistance deficiency, metabolic and genetic diseases)

F.K3.	the principles of prophylactics and treatment of masticatory apparatus diseases at different stages of development
F.K4.	the viral, bacterial and mycotic flora of the oral cavity and its role
F.K6.	the principles related to administration of local anaesthesia of masticatory organ tissues
F.K8.	the procedures in case of periapical diseases
F.K12.	the indications and contraindications related to treatment with the use of dental implants
F.K13.	the indications and contraindications related to performance of aesthetic dentistry treatments
F.K14.	the etiology and principles of treatment of complications within the stomatognathic system
F.K16.	the methods of the rehabilitation of the masticatory organ
F.K17.	therapeutic methods to be used for limitation and counteracting pain, minimisation of fear and stress
F.K19.	the principles of anaesthesia in dental procedures and the basic pharmacological products
F.K21.	the principles of radiological diagnostics
F.K22.	and understands the pathomechanism of the influence of oral cavity diseases on general health
G.K25.	the principles of medical ethics and deontology, including principles of ethical activity of the doctor

Skills– Graduate* is able to:

A.S2.	explain the anatomical rationale of the physical examination
B.S1.	relate chemical phenomena to processes occurring within the oral cavity
B.S2.	interpret physical phenomena occurring in the masticatory organ
C.S4.	predict and explains complex pathomechanisms of disorders leading to development of diseases
C.S5.	describe the clinical course of diseases in pathological processes
C.S11.	select reconstructive, prosthetic and binding biomaterials based on material properties and clinical conditions
C.S12.	recreate proper anatomic occlusal conditions and performs occlusion analysis
C.S13.	plan prosthetic restorations and knows principles related to their preparation at the laboratory.
E.S11.	diagnose headaches and facial pains as well as neurological diseases in adults and children, which cause problems in dental practice
F.S1.	conducts a medical interview with the patient or their family
F.S2.	conduct the physical examination of the patient
F.S3.	explain to the patient the issue of the patient's problems, identifies the method of treatment confirmed with the patient's informed consent, and the prognosis

F.S6.	interpret the results of additional examinations
F.S7.	determine indications to perform a certain dental procedure
F.S11.	manage the general and local complications during and after dental procedures
F.S12.	prescribes medications, regarding to their interactions and side effects
F.S13.	maintain the patient's up to date documentation, refers for specialized dental and medical examinations
F.S19.	applies appropriate drugs during and after the dental procedure, in order to relieve pain and fear
F.S25.	carry out prosthetic rehabilitation in simple cases in the field of 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:	
-	-
Skills– Graduate is able to:	
-	-
Social Competencies – Graduate is ready for:	
-	-

6. CLASSES		
Form of class	Class contents	Effects of Learning
Lectures VII semester	LECTURE 1: Piotr Stendera DDS, PhD Indications for restoring missing teeth. Use of removable partial dentures. Clinical management and treatment procedures. Content: Aims of prosthetic dentistry. Indications for prosthetic treatment. Removable partial dentures in prosthetic rehabilitation - divisions of removable restorations. The role of medical and dental history . Classifications of missing teeth. Partial dentures - definition, build, indications and stages of clinical procedure. Introductory information covering immediate, early and dentures. Cast dentures - definition, build, indications and contraindications. Presentation of clinical cases of prosthetic rehabilitation with the use of skeletal dentures in classes II, III and IV according to the Galasińska-Landsberger classification. Stages of clinical proceedings in the fabrication of skeletal dentures.	A.K1., A.K2., B.K2., B.K8., C.K23., C.K24., C.K25 C.K28., F.K1., F.K2., F.K3., F.K8., F.K16.

	<p>LECTURE 2: Piotr Stendera DDS, PhD Laboratory fabrication of removable dentures. Content: 1. Introduction. The use of removable prosthetic restorations in rehabilitation of patients. 2. Clinics - patient examination, treatment planning and anatomical impressions. 3. Preparation of gypsum anatomical models. 4. Occlusal wax rims - laboratory design and intended use. 5. Clinics – establishing central occlusion, selection of shape and color of artificial teeth. 6. Mounting master casts with wax rims in the articulator. Types of articulators. 7. Setting teeth in wax - making trial dentures. 8. Clinics – try in denture (on models and in the patient's mouth). 9. Converting wax to acrylic - flasking and polymerization of partial dentures. 10. Final denture preparation after removal from the polymerization can. 11. Denture smoothing and polishing for delivery to dental office. 12. Clinics - adjusting and delivering prostheses to the patient. Indications for the patient. 13. Final polishing and giving to use. 14. Clinics - correction of dentures (follow up appointment) 15. Smoothing and polishing of dentures after corrections.</p> <p>LECTURE 3: Piotr Stendera DDS, PhD Build of skeletal dentures. Design rules Content: The main components of a cast prosthesis. Parallelometric analysis - goals and stages. Build of a surveyor. Drawing orientation lines and areas of abutment teeth. Lower(infrabulge) and upper angle (suprabulge) surfaces. Definition of undercuts. Clamp surfaces - definition and spatial location and their descriptive features. Clasp arm types. Clasp build. Retentive parts of clasps and their types. Types of clasps. Occlusal rests and principles of designing the support of skeletal dentures. Types of rigid occlusal support. Principles and stages of designing denture major connectors. Types of major connectors in upper and lower cast metal denture.</p> <p>LECTURE 4: Piotr Stendera DDS, PhD Content: Build of cast metal dentures. Purpose of the parallometric analysis (surveying). 1. Objective and subjective examination of the patient as well as additional examinations enabling properly planned prosthetic treatment with the use of skeletal dentures. 2. Initial analysis of the abutment teeth and preparation of the prosthetic foundation before performing anatomical impressions. 3. Principles of paralometric analysis: - finding an optimal position of the master cast in relation to the vertical arm of surveyor - guidelines for drawing auxiliary lines on the model -designing proper position of individual parts of cast metal framework - marking and drawing on the model every part of the cast metal</p>	<p>A.K1., A.K2., B.K2., B.K8., C.K23., C.K24., C.K25., C.K28., F.K1., F.K2., F.K3., F.K8., F.K16.</p> <p>C.K23., C.K24., C.K28., F.K3., F.K16.</p> <p>C.K23., C.K24., C.K28., F.K3., F.K16.,</p>
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	<p>prosthesis (prosthetic clasps, rests, minor connectors, major connectors, mesh for the acrylic part).</p> <p>LECTURE 5: Piotr Stendera DDS, PhD Summary of clinical proceedings in the fabrication of removable dentures. Removable dentures in prosthetic rehabilitation after surgical procedures. Problems related to the long-term use of dentures Content: Cast metal dentures - a summary of the clinical procedure and a discussion of the differences in the procedure depending on the extent of the deficiencies and the presence of support zones. Occlusion in skeletal dentures. Partial dentures - summary of the clinical procedure and discussion of the differences in the procedure depending on the extent of the deficiencies and the presence of support zones. Prosthetic rehabilitation of patients after surgical procedures in the facial part of the skull due to tumors - introduction to the principles of rehabilitation in this group of patients with the use of removable dentures and presentation of clinical cases. Problems related to the long-term use of dentures - adaptation, changes to the prosthetic foundation, settling of dentures, mechanical damage to dentures and the possibility of repairing them. Influence of the design and form of prostheses structural elements on the denture bearing area.</p> <p>LECTURE 6: Piotr Stendera DDS, PhD Contents: Principles of designing cast metal dentures. 1. Introduction. Examples of different cast metal denture designs for similar configurations of teeth deficiencies. 2. Elements of a skeletal denture affecting the hard and soft tissues of patient's oral cavity. - clasp arms - major connectors - stabilizers -minor connectors with occlusal rests 3. Examples of constructions of cast metal dentures to minimize the undesirable impact of the prosthetic restoration on the environment of the patient's oral cavity. 4. Examples of different designs of cast metal dentures on models and in the patient's mouth and the effects of their long-term use. 5. The influence of dental plaque and calculus on abutment teeth during long term usage of cast metal dentures. 6. Periotest - build, the way the device works and examples of use in the design of cast metal dentures 7. Indications for a patient using cast metal dentures. Laboratory procedure. Equipment and devices. Materials and methods. 1. Introduction, presentation of laboratory equipment and their application. 2. Presentation of materials and methods of their use in fabricating cast metal dentures.</p> <p>LECTURE 7: Piotr Stendera DDS, PhD TITLE: Cast metal dentures – video clip. Contents: Presentation of the video clip “Cast metal partial denture”. Additional</p>	<p>A.K1., A.K2., B.K2., B.K8., C.K23., C.K24., C.K25 C.K28., F.K1., F.K2., F.K3., F.K16., F.K22.</p> <p>C.K23., C.K24., C.K28.,F.K2., F.K16.,</p>
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	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.K23., C.K24., C.K28.,F.K2., F.K16.,
Lectures VIII semester (e-learning form)	<p>Lecture 1: Marta Jaworska, DDS, PhD Planning and mouth preparation for prosthetic treatment. 1. Therapeutic goals and functions of modern dental prosthetics 2. Diagnostics and indications for prosthetic treatment 3. Treatment plan (components, conditions for successful prosthetic treatment) 4. Patient examination -interview - extraoral examination - intraoral examination - additional tests (radiological diagnostics) - analysis of diagnostic models - interdisciplinary consultations - auxiliary methods (computer visualization, diagnostic waxing of models, wax-up) - occlusograms, bruxchecker -photographic documentation 5. Errors made at the treatment planning stage 6. Interdisciplinary preparation of the patient for prosthetic treatment</p> <p>Lecture 2: Prof. Jolanta Kostrzewa –Janicka, DDS, PhD The importance of occlusion in prosthetic treatment 1. Functional and morphological relationships within the masticatory organ. - prosthetic rehabilitation tasks - the role of occlusion in prosthetic treatment 2. Clinical examination of the masticatory organ before rehabilitation of occlusion - dental examination (evaluation of soft and hard tissues, missing teeth, occlusion, clinical condition of dentition) - examination of the masticatory organ (palpation of the masticatory muscles and temporomandibular joints, assessment of mandibular movements - range, pattern, pain) 3. Additional tests of the masticatory organ - radiological (panoramic, tomographic, cephalometric) - instrumental (analysis of plaster models in the articulator, condylography) 4. Mandible articulation states - occlusion - static - maximum tooth formation, posterior position contact in the central relation, slide in centric - dynamic - guidance - articulation - jaw movements without teeth contact or guidance (canine, group, incisal) - temporomandibular joint function parameters (sagittal condylar guidance – condyle inclination, transverse movement – Bennett's (Bennett's angle, Bennett's movement), immediate side shift, laterotrusion, mediotrusion) 5. Reference positions in prosthetic treatment - habitual occlusion (maximum intercuspation) - constructive bite (centric relation, central occlusion in the toothless subjects, bite determination in cases of no support zones) - therapeutic position of the mandible (functional disorders of the</p>	<p>A.K1., A.K2., B.K8., C.K28., F.K1., F.K2., F.K3., F.K12., F.K13., F.K14., F.K16., F.K21., F.K22., A.S2., C.S11., C.S12., F.S6.</p> <p>A.K1., A.K2., B.K8., C.K28., F.K1., F.K2., F.K3., F.K14., F.K16., F.K21., F.K22., A.S2., C.S11., C.S12., F.S6.</p>

	<p>masticatory organ - occlusal splints)</p> <p>6. Contacts of teeth in static and dynamic occlusion - historical outline of the occlusal concept - occlusal determinants: centric relation, vertical dimension, occlusal plane, compensation curves (Spee, Wilson), guidance (incisal, canine)</p> <p>Lecture 3: Krzysztof Majchrzak, DDS, PhD Immediate dentures.</p> <ol style="list-style-type: none"> 1. Definition of immediate dentures 2. Indications 3. Relative and absolute contraindications 4. Advantages of using immediate dentures and their impact on the prosthetic base 5. Discussing issues related to planning prosthetic treatment with immediate dentures <ul style="list-style-type: none"> - Treatment planning - interview - research, - additional tests 6. Clinical management: <ul style="list-style-type: none"> - impressions - recording jaw relation - methods for preparing plaster models - surgery and delivery of ready dentures - indications for the patient - aftercare 7. Clinical cases - single tooth extraction 8. Clinical cases - multiple tooth extraction 9. Post operative dentures 10. Surgical templates <p>Lecture 4: Krzysztof Majchrzak, DDS, PhD TITLE: Prosthetic management after extensive surgical procedures. Elements of oncological prophylaxis.</p> <p>The lecture, on the basis of the presented clinical cases, describes the clinical procedure in the prosthetic rehabilitation of patients after extensive surgery of neoplasms occurring in the head and neck region. It also introduces some issues of oncological prophylaxis in relation to the generally understood prosthetic rehabilitation, a dentist may be a primary care physician in the case of many diseases of the oral cavity and the surrounding tissues of the head and neck.</p> <ol style="list-style-type: none"> 1. Epidemiology of head and neck tumors in Poland and Europe and in the world - the most common location, origin of tumors, degree of differentiation, morbidity and mortality rates, prognosis, forecasting for the coming years. 2. Carcinogenic factors, predisposing to neoplastic metaplasia, precancerous conditions, neoplasms in situ, the special role of viruses, especially HPV, in the oncogenesis of oral cancer. 3. "1 by 3" - an educational campaign of oncological prevention within the framework of Oral Cancer Week - under the auspices of Poland 	<p>A.K1., A.K2., B.K8., C.K28., F.K1., F.K2., F.K3., F.K6., F.K8., F.K16., F.K21., F.K22., A.S2., C.S11., C.S12., F.S6.</p> <p>A.K1., A.K2., B.K1., B.K2., B.K8., C.K28., D.K14., F.K1., F.K2., F.K3., F.K4., F.K12., F.K14., F.K16., F.K17., F.K21., F.K22., A.S2., C.S11., C.S12., F.S6., G.K25.</p>
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	<p>Head and Neck Cancer Research Group.</p> <p>4. General principles of treating head and neck tumors - treatment surgical, radiotherapy and / or chemotherapy; modern methods of therapy: combined radio- and chemotherapy, targeted therapies, 3-D conformal radiotherapy and IMRT (intensity modulated radiotherapy).</p> <p>5. Morphological and functional disorders occurring in patients after surgeries of facial tumors and adjuvant treatment, which imply different therapeutic management in relation to patients depending on the location, type, malignancy and treatment method of these tumors.</p> <p>6. The algorithm for prosthetic rehabilitation of patients after oncological operations in the head and neck area adopted in our clinic, and summarized in a few basic issues:</p> <p>a / individualization of the prosthetic restoration project, b / interdisciplinarity of treatment (general medical specialties and dental), c / protection of a defective prosthetic field, d / staged prosthetic rehabilitation:</p> <p>7. Discussion of clinical cases of patients undergoing prosthetic rehabilitation. Clinical cases are divided according to the area of postoperative cavities:</p> <p>a / patients with defects in the middle level of the face supplied in three therapeutic and prosthetic modes:</p> <p>8. Discussion of clinical cases of patients undergoing prosthetic rehabilitation. Clinical cases are divided according to the area of postoperative cavities:</p> <p>a / patients with cavities in the lower level of the face: - patients after hemiresection of the mandible without reconstruction jaw bones</p> <p>9. Prosthetic rehabilitation of patients after cancer surgeries in the head and neck region using implantological methods - intraoral dental implants.</p> <p>10. Therapeutic and clinical recommendations in the surgical procedure preceding long-term prosthetic reconstruction with implantological methods in postoperative patients.</p> <p>11. Discussion of clinical cases of patients undergoing prosthetic rehabilitation with the use of intraoral dental implants:</p> <p>a / patients after jaw resection without reconstruction, b / patients after unnecessary partial mandibular resections jaw bone reconstruction, c / patients after partial mandibular resections without reconstruction jaw bones,</p>	
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	<p>d / patients after partial mandibular resections and reconstructions jaw bones.</p> <p>12. Possibilities of prosthetic rehabilitation in postoperative patients with losses of facial tissues:</p> <p>a / face prostheses in the form of individual restorations prosthetic nose, ear, eyeball, b / face prostheses in the form of prosthetic restorations as components prosthetic construction: intraoral prosthesis + epithesis.</p> <p>13. Face prostheses made with the use of implantoprosthetic techniques - extraoral bone implants:</p> <p>a / epithets of the ear, nose, eyeball - stand-alone prosthetic restorations and as construction elements intraoral prosthesis + epithesis</p> <p>LECTURE 5: Prof. Jolanta Kostrzewa –Janicka, DDS, PhD Morphological and functional disorders of the stomatognathic system.</p> <ol style="list-style-type: none"> Definitions of stomatognathic system and masticatory organ Morphological and functional relationships within the masticatory organ Changes in the masticatory organ in time (adaptation, compensation) Etiology of temporomandibular disorders. Diagnostics of the masticatory organ <ul style="list-style-type: none"> - Clinical examinations - symptoms questionnaire - physical examination - dental examination - examination of the masticatory organ (palpation of the masticatory muscles, mandible movements examination - range of movements, pattern, pain, sounds in the temporomandibular joints) - Additional tests - radiological - X-ray, magnetic resonance imaging - instrumental - graphic registration of mandible movements - extraoral and extraoral (gotic arch, condylography) Classification of temporomandibular disorders Differential diagnosis Therapeutic treatment <ul style="list-style-type: none"> - initial (analgesic, anti-inflammatory, unloading joint structures, relaxing for masticatory muscles) -causal <p>Lecture 6: Prof. Jolanta Kostrzewa –Janicka, DDS, PhD Prosthetic treatment in patients with occlusion disorders.</p> <ol style="list-style-type: none"> Occlusion - basic definitions Short circuit disorders - definition The effects of occlusion disorders - signs of disorders at the level of dental, periodontal, masticatory muscles and temporomandibular joints 	<p>A.K1., A.K2., B.K1., B.K2., B.K8., C.K28., E.S11., F.K1., F.K2., F.K3., F.K14., F.K16., F.K21., F.K22., A.S2., C.S12., F.S6.</p> <p>A.K1., A.K2., B.K1., B.K2., B.K8., C.K28., E.S11., F.K1., F.K2., F.K3., F.K14 F.K16., D.K14., C.S5., C.S12., F.S6 .</p>
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	<p>4. Objectives of occlusion therapy 5. Optimal occlusion conditions according to Okeson 6. Indications for the commencement of occlusion therapy restoring optimal occlusion 7. Methods of treating occlusion disorders (conservative, prosthetic, orthodontic, surgical) 8. Treatment planning - diagnostic methods 9. Presentation of cases of patients with occlusion disorders treated in the Department of Prosthodontics of the Warsaw Medical University.</p> <p>Lecture 7: Krzysztof Majchrzak, DDS, PhD Prosthodontic treatment of patients in developmental age and congenital malformations. 1. Aims of prosthetic treatment in this age group. 2. Interdisciplinary nature of treatment. 3. Division into age categories. 4. Prosthetic solutions in particular age categories. 5. Additional tests. 6. Bone age. 7. Cleft palate - epidemiology. 8. Clinical cases of using permanent dentures. 9. Clinical cases of the use of removable dentures. 10. Hypodontics - epidemiology. 11. Clinical cases with permanent dentures treatment. 12. Clinical cases of implantological treatment. 13. Clinical cases with the use of removable dentures. 14. Enamel and dentin disorders, clinical case.</p> <p>Lecture 8: Krzysztof Majchrzak, DDS, PhD Prosthodontic rehabilitation with overdenture. 1. Overdenture prostheses - definition, types 2. Indications for use 3. Treatment planning using OVD prostheses supported on residual dentition 4. Assessment of residual dentition - selection of abutment teeth 5. Criteria for selecting abutment teeth 6. The importance of inter-maxillary space for OVD prostheses 7. Retention elements 8. Matrices - retention force 9. Installation of retention elements in the denture 10. Clinical cases 11. Overdenture prosthesis supported by intraosseous implants - indications, contraindications 12. Placement of implants 13. Biomechanical risk factors 14. Clinical cases 15. Overdenture dentures - advantages and disadvantages 16. Hygiene rules for OVD prostheses and retention elements 17. Problems that may occur when using OVD</p> <p>Lecture 9: Bohdan Bączkowski, DDS, PhD Dental implants as prosthetic abutments. Dental implants as prosthetic abutments. 1 Factors affecting integration of the endosteal implant 2. Osseointegration phenomenon 3. Implant shape 4. Surface characteristics</p>	<p>A.K1., A.K2., B.K1., B.K2., B.K8., C.K28., D.K14., F.K1., F.K2., F.K3., F.K4., F.K12., F.K14., F.K16., F.K17., F.K21., F.K22., A.S2., C.S11., C.S12., F.S6., G.K25.</p> <p>A.K1., A.K2., B.K1., B.K2., B.K8., C.K28., D.K14., F.K1., F.K2., F.K3., F.K4., F.K12., F.K14., F.K16., F.K17., F.K21., F.K22., A.S2., C.S11., C.S12., F.S6., G.K25.</p> <p>A.K1., A.K2., B.K1., B.K2., B.K8., C.K28., E.S11., F.K1., F.K2., F.K3., F.K12., F.K14., F.K16., F.K17., F.K21., F.K22., A.S2., C.S12., F.S6.</p>
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	<p>5. Assessment of the bone surface in terms of long-term use of implants 6. Techniques for surgical implant placement 7.Types of loads in terms of expected treatment success</p> <p>8. Indications and contraindications for implant prosthetic treatment 9. Division of intraosseous implants 10. Implants as prosthetic abutments 11. Treatment planning based on the example of edentulous patient - possible prosthetic constructions 12. Types of implantological abutments, indications for their use 13. Clinical management of permanent implant-based dentures 14. Clinical management of implant-based removable dentures - specific solutions for OVD prostheses 15. Toronto bridges 16. Aesthetic aspects in implantological treatment 17. "All on 4" solutions</p>	
<p>Seminars (topic of particular seminar will be chosen by teacher responsible for classes)</p>	<p>SEMINAR 1 TITLE: Treatment planning and preparation for prosthetic treatment 1. Therapeutic goals and functions of modern prosthetic dentistry 2. Treatment plan (components, conditions for successful prosthetic treatment) 3. Patient examination 4. Errors made at the stage of treatment planning 5. Interdisciplinary preparation for prosthetic treatment</p> <p>SEMINAR 2 TITLE: Occlusion in prosthetic dentistry 1. The importance of occlusion in prosthetic treatment 2. Clinical examination of the masticatory organ before of prosthetic treatment 3. Additional tests of the masticatory organ 4. Mandible articulation states 5. Occlusal determinants</p> <p>SEMINAR 3: TITLE: Face bow and articulators 1) The need to put together plaster models. 2) Mandible movements and ways of describing them. 3) Historical outline of occluders and articulators. 4) Definitions and classification. 5) Construction of the articulator. 6) Parameters used to set articulators. 7) Examples of articulators used today. 8) Function, types and structure of face bow. 9) Ways to fix and transfer plaster model relationships. 10) Articulator adjustable individually.</p> <p>SEMINAR 4: TITLE: Partial dentures, repairs and stomatopathies</p>	<p>A.K1., A.K2., B.K8., C.K28., F.K1., F.K2., F.K3., F.K12., F.K13., F.K14., F.K16., F.K21., F.K22., A.S2., C.S11., C.S12., F.S6.</p> <p>A.K1., A.K2., B.K8., C.K28., F.K1., F.K2., F.K3., F.K14., F.K16., F.K21., F.K22., A.S2., C.S11., C.S12., F.S6.</p> <p>A.K1., A.K2., B.K2., B.K8., C.K23., C.K24., C.K25 C.K28., F.K1., F.K2., F.K3., F.K8., F.K16.</p>

	<p>1. Acrylic partial dentures</p> <ul style="list-style-type: none"> - Definition - Indications - Requirements for acrylic partial dentures - Clinical management <p>2. Repairs</p> <ul style="list-style-type: none"> - Causes of damage of prosthetic restorations -Removable dentures repairs: crack, fracture, broken fragment of the denture plate, restoring a tooth, restoring clasp - Repair of cast metal dentures: fracture within a clasp arm: fracture of occlusal rest, deformation or fracture of major or minor connectors, tooth restoration <p>3. Stomatopathy</p> <ul style="list-style-type: none"> - Definition - Etiology - Factors contributing - Symptoms - Differentiation - Clinical examination - Treatment - Prevention <p>SEMINAR 5: TITLE: Master cast surveying and design of skeletal prostheses</p> <ol style="list-style-type: none"> 1. Master cast surveying – 2. Clasp surfaces - definition and location as well as their descriptive features. Structure and types of staple clasps. Elements and types of retention arms of clasps. Occlusal rests and design principles for supporting skeletal dentures. Rigid periodontal supports - types and application. Types of major connectors in the upper and lower skeletal prosthesis - presentation on examples of clinical works. <p>SEMINAR 6: TITLE: Skeletal dentures - clinical procedure, laboratory execution</p> <p>Contents:</p> <p>Skeletal prosthesis - definition, indications and contraindications. Construction elements of a skeletal denture. Presentation of subsequent clinical visits in the implementation of skeletal prostheses covering the initial stage - examinations, diagnostics, preparation of the patient for treatment, including initial prosthetic preparation and subsequent clinical visits necessary to implement the planned prosthetic supplement in the form of a skeletal prosthesis.</p> <p>Stages of laboratory performance as a correlated procedure with clinical visits. Master casts and their initial preparation for duplication, including surveying and design.</p> <p>SEMINAR 7: TITLE: Prosthetic crowns and methods of their cementation</p> <ul style="list-style-type: none"> -1. Division of prosthetic crowns - overview of the division of crowns, - indications and contraindications for the use of crowns, - overview of the types of crowns (temporary, full coverage, 	<p>A.K1., A.K2., B.K8., C.K28., F.K1., F.K2., F.K3., F.K12., F.K13., F.K14., F.K16., F.K21., F.K22., A.S2., C.S11., C.S12., F.S6.</p> <p>A.K1., A.K2., B.K8., C.K28., F.K1., F.K2., F.K3., F.K12., F.K13., F.K14., F.K16., F.K21., F.K22., A.S2., C.S11., C.S12., F.S6.</p> <p>A.K1., A.K2., B.K8., C.K28., F.K1., F.K2., F.K3., F.K12., F.K13., F.K14., F.K16., F.K21., F.K22., A.S2., C.S11., C.S12., F.S6.</p>
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	<p>telescopic).</p> <p>2. Preparation of the abutment tooth for the crown</p> <ul style="list-style-type: none"> - preparation guidelines, - types of the gingival margin, - gingival marginal retraction. <p>3. Impressions for the crown</p> <ul style="list-style-type: none"> - materials used for impressions, - types of impression trays, - impression techniques. <p>4. Cements, types and characteristics</p> <p>5. Traditional cementation</p> <p>6. Adhesive cementation</p> <ul style="list-style-type: none"> - types of adhesive cements, - preparation of ceramics for adhesive cementation, - preparation of a tooth for adhesive cementation, - silanization, - selected cementing schemes for individual types of ceramics, - advantages and disadvantages of adhesive cementation. <p>SEMINAR 8:</p> <p>TITLE: Fixed partial dentures (bridges)</p> <ol style="list-style-type: none"> 1. Definitions, indications, contraindications, division 2. Structure 3. Biomechanics of the span 4. Clinical management from planning to delivery <p>SEMINAR 9:</p> <p>TITLE: Prosthetic posts</p> <ol style="list-style-type: none"> 1. Division 2. Individual posts: <ol style="list-style-type: none"> a. characteristics. b. indications, c. contraindications, d. preparation, e. instrumentation, f. cementation, 3. Standard posts: <ol style="list-style-type: none"> a. characteristics. b. indications, c. contraindications, d. preparation, e. instrumentation, f. cementation 4. Root posts with and without retention unit: <ol style="list-style-type: none"> a. characteristic. b. indications, c. contraindications, d. preparation, e. instrumentation, f. cementation h. matrix mounting procedure in denture plate 5. Inlays (inlay, onlay, overlay): <ol style="list-style-type: none"> a. characteristic. b. indications, c. contraindications, d. preparation e. instrumentation, f. delivery 	<p>A.K1., A.K2., B.K8., C.K24., C.K25., C.K28., F.K1., F.K2., F.K3., F.K12., F.K13., F.K14., F.K16., F.K17., F.K19., F.K21., F.K22., A.S2., C.S11., C.S12., F.S6.</p> <p>A.K1., A.K2., B.K8., C.K24., C.K25., C.K28., F.K1., F.K2., F.K3., F.K12., F.K13., F.K14., F.K16., F.K17., F.K19., F.K21., F.K22., A.S2., C.S11., C.S12., F.S6.</p> <p>A.K1., A.K2., B.K8., C.K24., C.K25., C.K28., F.K1., F.K2., F.K3., F.K12., F.K13., F.K14., F.K16., F.K17., F.K19., F.K21., F.K22., A.S2., C.S11., C.S12., F.S6.</p>
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	<p>SEMINAR 10: TITLE: Overdenture (OVD) and denture relining</p> <ol style="list-style-type: none"> 1. Definition of OVD prostheses 2. Indications and contraindications for OVD prostheses 3. Advantages and disadvantages of OVD prostheses 4. Types of retention elements for OVD prostheses 5. Clinical management in fabrication of OVD prostheses 6. Mounting of retention elements in the denture 7. Implantoprosthodontic treatment of edentulous patients with OVD prostheses 8. Denture relining - definition, indications and contraindications 9. Materials used in denture relining 10. Direct method of relining 11. Indirect method 12. Rebase and prosthesis replication 	<p>A.K1., A.K2., B.K8., C.K24., C.K25., C.K28., F.K1., F.K2., F.K3., F.K12., F.K13., F.K14., F.K16., F.K17., F.K19., F.K21., F.K22., A.S2., C.S11., C.S12., F.S6.</p>
Practical classes	<p>Practical classes take place once a week, they last 4 hours. The subject of practical class cycle is prosthetic rehabilitation of patients (in simple clinical cases) using various types of prosthetic restorations, depending on indications, general health and age of the patient. Optimal selection of prosthetic restorations in specific conditions with permanent and / or removable restorations. Contents: examination of the patient, analysis of the morphological and functional state of the masticatory organ and additional tests, presentation and discussion of possible treatment plans, determination of the optimal treatment plan taking into account the indications and contraindications for the use of individual prosthetic restorations, clinical and laboratory procedures in the implementation of prostheses, cooperation in a therapeutic team, follow-up care.</p>	<p>A.K1., A.K2., A.S2., B.K1., B.K2., B.K8., B.S1., B.S2., C.K23., C.K24., C.K25., C.K28., C.S4., C.S5., C.S11., C.S12., C.S13., D.K14., E.S11., F.K1., F.K2., F.K3., F.K4., F.K6., F.K8., F.K12., F.K13., F.K14., F.K16., F.K17., F.K19., F.K21., F.K22., F.S1., F.S2., F.S3., F.S6., F.S7., F.S11., F.S12., F.S13., F.S19., F.S25., G.K25.</p>

7. LITERATURE

Obligatory

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

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. Churchill Livingstone 2003

8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
<p>Knowledge: A.K2., A.S2., B.K8., B.S1., B.S2., C.K23., C.K24., C.K25., C.K28., C.S4., C.S5., C.S11., C.S12., C.S13., E.S11., F.K1.,</p>	<p>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</p>	<p>Assessment criteria: points 1,2,3. Written tests: 2.0 (failed) <60% 3.0 (satisfactory) 60-65% 3.5 (rather good) 66-70%</p>

<p>F.K2., F.K3., F.K12., F.K13., F.K14., F.K16., F.K21., F.K22., F.S1., F.S2., F.S3., F.S6., F.S7., F.S11., F.S12., F.S13., F.S19., F.S25.</p>	<p>prosthetic restorations) 3. Way of behavior towards patient, assistant, technician The grade is the average from points 1,2,3.</p>	<p>4.0 (good) 71-75% 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.</p>
<p>Skills: A.K2., A.S2., B.K8., B.S1., B.S2., C.K23., C.K24., C.K25., C.K28., C.S4., C.S5., C.S11., C.S12., C.S13., E.S11., F.K1., F.K2., F.K3., F.K12., F.K13., F.K14., F.K16., F.K21., F.K22., F.S1., F.S2., F.S3., F.S6., F.S7., F.S11., F.S12., F.S13., F.S19., F.S25.</p>	<p>Assessment of student active participation by his teacher in terms of the appropriate preformation of therapeutic procedures, theoretical knowledge, attitude towards the patient and the teacher.</p>	<p>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 Table below</p>

9. ADDITIONAL INFORMATION (information essential for the course instructor that are not included in the other part of the course syllabus e.g. if the course is related to scientific research, detailed description of, information about the Science Club)

The subject of the seminars is variable, depending on the availability of patients. Examples of topics for seminars to be selected by teacher are given.

All absences should be made up in the form agreed with teacher conducting the exercises.

Please avoid using mobile phones during classes and ensure that you wear appropriate clothes and ID.

The person responsible for teaching in the fourth year is dr hab. Dominika Gawlak, MD, PhD.

The final grade for the diploma examination after year 5 is the grade average of:

- exercises for the fourth and fifth year (20%),
- practical exam (30%)
- test examination (50%).

Students scientific association , trustee Marcin Szerszeń, DDS; Kamila Wróbel- Bednarz DDS, Phd