

PRIVATE HIGHER EDUCATIONAL INSTITUTION
"INTERNATIONAL ACADEMY OF ECOLOGY AND MEDICINE"
Department of Dentistry

SYLLABUS
EDUCATIONAL DISCIPLINE

«Orthopedic dentistry»


LEVEL OF HIGHER EDUCATION The second (master's) level

DEGREE OF HIGHER EDUCATION Master

FIELD OF KNOWLEDGE 22 Healthcare

SPECIALTY 221 Dentistry

COURSE _4_

Considered and approved
at a meeting of the Department of Dentistry
Protocol № 1 from «01» 09 2020 p.
Acting head of the department _____
MD, prof.  Kuts P.V.

Kiev 2020

1. General information	
Subject	Orthopedic dentistry
Lector	Acting Head of the Department, Doctor of Medical Sciences, Professor, Kuts Pavlo Valeriyovych, Bida Alexander Vitalievich
Teacher's e-mail	forum-for-me@bigmir.net
Discipline format	Normative discipline.
The volume of the discipline	120hours , 4 ECTS
Link to the distance learning site	maem.kiev.ua
Consultations	Web conferences in various programs (Zoom, Skype, Myit, Jitsy, Teams, Viber, Facebook, Cisco Webs). Exchange tasks via e-mail, Wandrive
2. Annotation to the course	
Orthopedic dentistry is a discipline that allows students to master in the clinic certain dental manipulations used in the treatment of patients with defects of the crown of the tooth, with partial defects of the dentition. Acquired in this way special (professional) competencies students then use in the treatment of dental patients of orthopedic profile. Students get acquainted with the organization and work of clinical offices, documentation. The subject of study of the discipline is orthopedic treatment of diseases of the dental apparatus are: Module 3 "Complete removable prosthetics" Module 4 "Maxillofacial Orthopedics"	
3. Purpose and objectives of the course	
The purpose of teaching the discipline "Orthopedic Dentistry" is to master patients' methods of performing certain dental manipulations used in the treatment of patients with defects, facial injuries, adentia, for the possibility of their further use in the treatment of patients and the formation of special (professional) competencies in orthopedic clinic. dentistry. The main tasks of studying the discipline "Orthopedic Dentistry" are: 1. Demonstrate mastery of moral and deontological principles of a medical specialist and the principles of professional subordination in the clinic of orthopedic dentistry. 2. Demonstrate the ability to examine patients with hard tissue defects, partial defects of the dentition and complete loss of teeth in the clinic of orthopedic dentistry. 3. Demonstrate the performance of dental manipulations in patients with hard tissue defects, partial defects of the dentition, complete loss of teeth, traumatic injuries of the maxillofacial area in the clinic of orthopedic dentistry.	
4. Competencies and learning outcomes	
Learning outcomes	Teaching methods
Have modern methods of prevention, diagnosis and treatment of patients with adentia, injuries	Lectures, practices, oral interviews, tests, dialogue with applicants for higher education, creative work with the creation of multimedia presentations and their presentation, independent work with literary sources
<p>integral: Ability to solve problems and problems in the field of health care in the specialty "Dentistry" in a professional activity or in the learning process, which involves research and / or innovation. – general: Ability to abstract thinking, analysis and synthesis; ability to learn and be modernly trained. Knowledge and understanding of the subject area and understanding of the profession. Ability to apply knowledge in practical situations. Ability to communicate in the state language both orally and in writing. Ability to communicate in a second language. Skills in the use of information and communication technologies. Ability to search, process and analyze information from various sources. Ability to adapt and act in a new situation; ability to work autonomously. Ability to identify, pose and solve problems. Ability to choose a communication strategy. Ability to work in</p>	

a team. Interpersonal skills. Ability to act on the basis of ethical considerations (motives). Safe activities skills Ability to evaluate and ensure the quality of work performed. The desire to preserve the environment. Ability to act socially responsible and civic conscious. – special (professional, subject):

As a result of studying the discipline "orthopedic dentistry" the student must be able to: Module 3 "Complete removable prosthetics"

1. Analyze the results of the examination of a dental patient with complete absence of teeth in the clinic of orthopedic dentistry;
 2. Explain the results of clinical and special (additional) research methods;
 3. Fit hard individual spoons on the upper and lower jaws;
 4. Demonstrate the receipt of functional prints;
 5. Analyze occlusion factors;
 6. Compare different types of articulators;
 7. Be able to plaster models in the articulator;
 8. To register the movements of the lower jaw;
 9. Master the basic provisions of spherical and articulated theories of articulation;
 10. Demonstrate the method of Efron, Gelfand, Katz;
 11. Examine the patient's mouth in the complete absence of teeth.
 12. Obtain anatomical prints from the edentulous upper and lower jaws for the manufacture of individual spoons.
 13. Make individual spoons on the upper and lower jaw.
 14. Fit hard individual spoons.
 15. Get functional prints from the upper and lower jaws.
 16. Determine the central ratio of the jaws with defects of the dentition of group IV.
 17. be able to check the design of complete removable dentures;
 18. be able to carry out the formation and polymerization of plastics;
 19. check the fixation of complete removable dentures in the patient's mouth;
 20. to master the sequence of processing of complete removable prostheses after polymerization;
 21. demonstrate the correction of the base and occlusion in complete removable dentures;
 22. diagnose possible complications of local anesthesia;
 23. to treat diseases of the oral mucosa, which occur under the influence of removable dentures.
 24. Carry out anatomical placement of teeth on the glass, on a spherical surface
 25. Check the design of complete removable dentures
 26. To carry out fixing of full removable prostheses.
 27. Carry out the correction of complete removable dentures
- Module 4 "Maxillofacial Orthopedics"
28. Conduct a clinical examination of patients with fractures of the jaws;
 29. Carry out differential diagnosis between fractures of the jaws of different localization;
 30. Apply transport splints and ligature teeth.
 31. Get prints and determine the central ratio in the manufacture of forming devices.
 32. Determine the scope of orthopedic treatment for false joints.
 33. To choose the design of the denture depending on the degree of narrowing of the oral cavity.
 34. Get fingerprints in patients with microstomy.

5. Organization of course training

The volume of the course

Type of lesson	<i>Total amount of hours</i>
Lectures	10
Practical classes	70
Independent work	40

Course signs

Semester 7-8	Specialty <u>221 Dentistry</u>	Course (year of study) 4	Normative discipline
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Course thematic

THEMATIC PLAN OF LECTURES THEMATIC PLAN OF LECTURES IN ORTHOPEDIC DENTISTRY FOR STUDENTS OF THE 4TH YEAR OF THE 7TH SEMESTER

№	Topic	Hours
1	Anatomical and physiological features of the masticatory apparatus with complete loss of teeth. Clinical stages of manufacturing complete removable prosthesis	2
2	Biomechanics of the mandible, occlusion factors. Theories of articulation	2
3	Laboratory stages of manufacturing complete removable dentures	2
	Total	6

THEMATIC PLAN OF LECTURES IN ORTHOPEDIC DENTISTRY FOR STUDENTS OF THE V COURSE OF IAEM 4 year of study 8 semester

№	Topic	Hours
1	Maxillofacial orthopedics. Purpose, task. Classification of jaw fractures. General characteristics of the devices.	2
2	Maxillofacial prosthetics of patients with injuries of the maxillofacial area. Contractures. Microstomy. Hard and soft palate defects. Etiology, clinic, features of orthopedic treatment.	2
	Total	4

**THEMATIC PLAN OF PRACTICAL CLASSES
in orthopedic dentistry for 4th year students of the VII semester**

№	Topic	Hours
1	Examination of patients with complete absence of teeth. Classification of edentulous jaws and mucous membranes according to Lund, Supli. Admission of patients.	
2	Preparation of the oral cavity of toothless patients for prosthetics. Methods of fixation of complete removable prostheses (fixation, stabilization and balance). Admission of patients.	
3	Anatomical prints of edentulous jaws. Prosthetic field and prosthetic bed. Determination of the maximum boundaries of the prosthetic bed on the models. Admission of patients.	
4	Individual spoons, their types and methods of manufacture (CITO, Vasilenko ZS). Adjustment of individual spoons according to Herbst Types of functional prints. Methods of obtaining functional prints. Imprint materials. Defining boundaries. Admission of patients.	
5	Bite rollers and their types. Manufacturing techniques. Requirements for biting rollers. Admission of patients. Methods of determination and methods of fixing the central ratio of the jaws. Possible errors and their correction	
6	Biomechanics of mandibular movements. Occlusion factors. Theories of articulation, basic provisions (Monson, Gizi-Ganau).	
7	Anatomical placement of artificial teeth on glass, on a spherical surface. Check of a wax design of full removable prostheses. Correction of possible errors in the clinic. Correction of errors of previous stages of prosthesis manufacturing in the laboratory. Admission of patients.	
8	Final modeling of the prosthesis base, plastering of the model in the cuvette (direct, reverse, combined). Laboratory stages of manufacturing complete removable prostheses (packaging, polymerization). Processing, grinding, polishing of prostheses.	
9	Possible errors and ways to eliminate them. Correction and delivery of complete removable dentures.	

10	Influence of lamellar prosthesis bases on oral tissues. Adaptation to prostheses.	3
11.	Credit	4
	Total	34

**THEMATIC PLAN OF PRACTICAL CLASSES IN ORTHOPEDIC DENTISTRY
4 year of study 8 semester**

№	Topic	Ho
1	Control of the initial level of knowledge. Maxillofacial orthopedics. Purpose and objectives. The structure of the VSC and NSC. Chewing muscles. The structure of the TMJ. Classification of jaw fractures. Clinical signs in different types of fractures. The mechanism of displacement of fragments in fractures of the jaws	3
2	Emergency dentistry. Types and volume of orthopedic dental care for maxillofacial lesions. General characteristics of maxillofacial devices and their classification. Transport tires.	3
3	Ligature ligation of teeth, indications, contraindications. Possible mistakes and complications. (including 1 hour of laboratory classes)	3
4	Treatment of fractures of the jaws without displacement of fragments with bent wire splints. Splinting errors.	3
5	The amount of specialized orthopedic care for patients with fractures of the jaws. Tires of laboratory production (tires of Weber, Vankevich, Limberg, Guning-Port).	3
6	Etiology, clinic and orthopedic treatment of fractures of the jaws with stable displacement of fragments in the vertical transverse planes.	3
7	The use of orthopedic devices in osteoplasty and soft tissue plastics of the maxillofacial area (forming and fixing devices).	3
8	Etiology, pathogenesis, clinic of mandibular contractures, their classification. Prevention of contractures and orthopedic methods of their treatment	3
9	Etiology, pathogenesis, clinic and orthopedic treatment of improperly fused fractures. Causes of the formation of a false joint, clinic. Pathological anatomy of the false joint. Dental prosthetics.	3
10	Microstomy. Etiology, clinic. Features of dental treatment of microstomy. Prosthetics with microstomy.	3
11	Prevalence, etiology, pathogenesis and orthopedic treatment of hard and soft palate defects. Obturators. Clinical and laboratory stages of manufacturing obturators. Prosthetics of facial defects. Resection prostheses. Ectoprostheses. Getting a face mask. (including 1 hour of laboratory classes)	3
12	Credit	3
	Total	34

Topics of laboratory classes

№	Topic	Venue lesson
1.	Functional diagnostics in orthopedic dentistry. Chewing muscle electromyography. Calculation methods (masticatory efficiency, gnathodynamometry, EMG, etc.). Modern diagnostic capabilities.	Office functional diagnostics

. THEMATIC PLAN OF INDEPENDENT WORK		
	Analysis of diagnostic models in the articulator.	
2.	Technology of casting the frames of fixed and removable solid dentures. Metals and alloys.	Processing of frames Foundry
3.	Modeling and polymerization of acrylic facing materials in fixed dentures.	Laboratory
4.	Modeling and polymerization of highly filled polymers. Polymerization of base plastics. Compression and directional polymerization of the Laboratory:	Laboratory: dental and metal ceramics
5.	Modeling of anterior and lateral teeth on phantoms. Functional anatomy of the crown surface of teeth of different functioning groups and ways of its restoration	Study room
6.	Metal ceramics. Metals and their alloys. Technology of applying a ceramic coating on a solid frame. Metal-free ceramics, technological and clinical features.	Laboratories: dental and metal ceramics
7.	Modeling of reproductions of solid frames of fixed dentures, new technological developments. Casting and shrinkage compensation	
8.	Planning of fixation of partial removable prostheses on models and in clinic, means and ways of fixing. Placement of teeth in partial removable dentures. Bent paper clips. Telescopic crowns.	Study room
9.	Parallelometry of diagnostic models. Constructions of clasp prostheses and their functional elements on models	Study room
10.	Refractory models. Modeling of clasp prosthesis frames. Shrinkage compensation of metal alloys. Duplicate models	Study room
11.	Milling on models. Installation of attachments in removable prostheses. Modeling of the frame and metal bases with attachments and clasps	Study room
12.	Placement of teeth in complete dentures behind glass and individual occlusal curves	Dental Laboratory
13.	Devices that reproduce the movement of the lower jaw. Articulators of their possibilities and use. Gnatometry. Facial arch.	Study room
14.	Basics of gnathology and possibilities of their use.	Study room
15.	Ro-graphy and computed tomography. Methods of conducting. Deciphering Ro-graphy and tomograms in diseases of the TMJ, clinical and practical use.	Radiological Office
16.	Analysis of the condition of the periodontium according to clinical and laboratory studies. Periodontogram. Radiograph.	Radiological Office
17.	Prosthetics on implants. Carcass modeling, collapsible and non-collapsible prosthesis structures. Advantages and disadvantages	Study room
18.	The amount of orthopedic care at the stages of medical evacuation. Maxillofacial apparatus	Study room

THEMATIC PLAN OF INDEPENDENT WORK OF STUDENTS (IWS)

Thematic plan of independent extracurricular work of students in the discipline of orthopedic dentistry

Module 3
"Complete removable prosthetics"
4th year of study 7th semester

№	Topic	Hours
Independent elaboration of topics:		
1	Classification of atrophies of the alveolar process of the upper and lower jaws with complete loss of teeth.	4
2	Dependence of the choice of impression material on the type of oral mucosa.	4
3	Principles of choosing artificial teeth for complete removable dentures.	4
4	Mistakes made in the clinical stages of manufacturing complete removable plate prostheses	4
5	Features of manufacturing complete removable plate prostheses under adverse clinical conditions. Pre-prosthetic preparation of the oral cavity.	4
Total		20

№	4th year 8th semester Independent elaboration of topics:	Hours
1	Fractures and dislocations of teeth. Methods of splinting and orthopedic treatment.	2
2	Etiology, pathogenesis, clinic of mandibular contractures, their classification. Prevention of contractures and orthopedic methods of their treatment.	2
3	Fractures of the upper jaw. Methods of orthopedic treatment.	2
4	Fractures of the alveolar processes of the jaws. Methods of their orthopedic treatment.	2
5	Dislocations of the mandible, their characteristics. Methods of orthopedic treatment.	2
6	Preventive devices and prostheses.	3
7	Diagnosis and differential diagnosis in emergencies and emergencies.	3
8	Preparation for differentiated credit	4
Total		20

6. Course evaluation system

General course evaluation system	<p>Current control is performed based on the control of theoretical knowledge, skills and abilities in practical classes. Independent study students are assessed in practical classes, and is an integral part of the final grade of the student. Current control is performed during the training sessions and aims at checking the assimilation of students learning the material. Forms of current control are:</p> <p>a) test tasks with a choice of one correct answer, with the definition of the correct</p>
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sequence of actions, with determination of the conformity, defining the specific portion of the photo or diagram ("detection");
 b) individual oral questioning, interview;
 c) the solution of typical situational tasks;
 g) control of practical skills;
 Grades on the national scale ("excellent" - 5, "good" - 4, "satisfactory" - 3, "unsatisfactory" - 2), received by students, are displayed in the journals of attendance and academic group performance.

Final control

The final control is the form of a differentiated credit at the end of the 1st semester and at the end of the 2nd semester upon completion of the course of medical biology. The semester exam is a form of final control of mastering by the student of theoretical and practical material on academic discipline. The final control (exam) is carried out at the last control lesson.

Students are admitted to the FC who have attended all the classes provided by the curriculum in the discipline and while studying the module scored the number of points not less than the minimum (**72 points**). A student who, for good or bad reasons, has missed classes, is allowed to rework academic debt for a certain period of time.

Evaluation of current educational activities. During the assessment of mastering each topic for the current educational activity of the student scores are set on a 4-point (national) assessment scale. This takes into account all types of work provided by the discipline program. The student must receive a score on each topic. Scores on the traditional scale are converted into points. The final assessment of the current academic activity is the arithmetic mean (the sum of scores for each lesson is divided by the number of lessons per semester) and translated into points according to **Table 2.**

Table 2. Conversion of the average score for the current activity into a multi-point scale (for disciplines completed by diff.credit, exam)

4- point scale	120- point scale	4- point scale	120- point scale	4- point scale	120- point scale	4- point scale	120- point scale
5	120	4,45	107	3,91	94	3,37	81
4,95	119	4,41	106	3,87	93	3,33	80
4,91	118	4,37	105	3,83	92	3,29	79
4,87	117	4,33	104	3,79	91	3,25	78
4,83	116	4,29	103	3,74	90	3,2	77
4,79	115	4,25	102	3,7	89	3,16	76
4,75	114	4,2	101	3,66	88	3,12	75
4,7	113	4,16	100	3,62	87	3,08	74
4,66	112	4,12	99	3,58	86	3,04	73
4,62	111	4,08	98	3,54	85	3	72
4,58	110	4,04	97	3,49	84	<3	Not enough
4,54	109	3,99	96	3,45	83		
4,5	108	3,95	95	3,41	82		

*The maximum number of points that a student can collect for current educational activity during semester in order to be admitted to the exam is **120 points**.*

*The minimum number of points that a student can collect for current educational activity during semester in order to be admitted to the exam is **72 points**.*

Calculating of the number of points is based on obtained marks of student according to traditional scale while learning subject during the semester, by calculating the arithmetic mean (AM) that is rounded to two signs after comma.

Evaluation of independent work of students. Independent work of students, which is provided by the topic of the lesson together with the classroom work, is evaluated during the current control of the topic in the relevant lesson. Assimilation of topics that are submitted only for independent work is checked during the final module

	<p>control.</p> <p>Evaluation of final control.</p> <p>The maximum number of points that a student can score during the exam is 80 points.</p> <p>The final control is considered credited if the student scored at least 60% of the maximum amount of points (for a 200-point scale - at least 50 points).</p> <p>Determining the number of points that a student scored in the discipline: the number of points that a student scored in the discipline is defined as the sum of points for the current academic activity (Table1) and for the final control (diff.credit, exam) (Table 3).</p> <p>Table 3. Scale of assessment of differentiated (exam) credit:</p> <table border="1"> <thead> <tr> <th>Traditional scale</th> <th>Points</th> </tr> </thead> <tbody> <tr> <td>«5»</td> <td>70-80</td> </tr> <tr> <td>«4»</td> <td>60-69</td> </tr> <tr> <td>«3»</td> <td>50-59</td> </tr> </tbody> </table>	Traditional scale	Points	«5»	70-80	«4»	60-69	«3»	50-59
Traditional scale	Points								
«5»	70-80								
«4»	60-69								
«3»	50-59								
Requirements for written work	The final written work is performed in the form of a test.								
Practical classes	Classroom work								
The 1st semester									
Classroom work - score from 2 to 5 for each topic.									
<p><i>Differentiated credit (semester control)</i> Semester control at the end of the 1st semester is provided in the form of Differentiated credit. (Table 2) Provides a final grade on a 120-point scale as the sum of grades for the current control of knowledge (oral examination, written survey, Practical work, abstracts).</p> <p>Semester control includes control of theoretical and practical training.</p> <p>Amount: minimum $72 + 50 = 122$, maximum $120 + 80 = 200$</p>									
The 2nd semester									
Classroom work - score from 2 to 5 for each topic.									
<p>Final module control is evaluated from 50 to 80 points and consists of:</p> <p>Test control - 40 tests = 40 points (1 point for the correct answer to 1 test).</p> <p>Answer to 2 theoretical questions of 20 points for each = 40 points. Amount: 80.</p> <p>Amount: minimum $72 + 50 = 122$, maximum $120 + 80 = 200$</p>									
The list of theoretical questions to prepare students for the exam.									
<p>List of control questions for the final module control with orthopedic dentistry Module 3 "Complete removable prosthetics" 1. Examination of patients with complete loss of teeth: stages, basic and additional methods of examination, medical records 2. Stage of subjective examination. Pathological conditions and somatic diseases that are risk factors at the dental office 3. Examination of the temporomandibular joint (basic and additional methods) 4. Examination of the masticatory muscles (basic and additional methods). 5. Examination of the oral mucosa. Mobility and pliability of the mucous membrane, classification by Supli. 6. Methods of recording movements of the lower jaw 7. Planning of orthopedic treatment and before prosthetic preparation 8. Functional anatomy of masticatory muscles. Synergism and coordinated antagonism, the state of relative physiological rest of the masticatory muscles 9. Functional anatomy of the temporomandibular joint 10. Algorithm and features of examination of a patient with complete absence of teeth; 11. Features of anatomical structures of the maxillofacial area of patients with complete loss of teeth; 12. Volume of additional examination of a patient with complete absence of teeth; 13. methods of obtaining functional prints; 14. tactics of treatment of a patient with complete absence of teeth in the clinic of orthopedic</p>									

dentistry. 15. stages of determination and fixation of the central ratio of edentulous jaws; 16. functional anatomy of the components of the masticatory apparatus and topography of the muscles that take the main part in the movements of the mandible; 17. principles of work with the articulator at prosthetics of patients with complete absence of teeth. 18. know the principles of anatomical placement of teeth; 19. know the principles of setting on a spherical surface; 20. material and technical support for the manufacture of complete removable prostheses; 21. etiological factors, clinical manifestations and pathogenesis of mechanical, chemical, thermal insulating and sensitizing effects of removable prostheses; 22. Anatomy of the occlusal surface of dentitions and individual teeth, sagittal and transverse occlusal curves. Anatomical and functional occlusal surface, occlusal compass. 23. Biomechanics of mandibular movements. Phases of masticatory movements according to Giza. Occlusion and articulation, types of occlusion, occlusion factors 24. Movement of the lower jaw in the vertical direction. Terminal hinge axis, Posset diagram 25. Parameters that characterize the movement of the lower jaw in the sagittal direction. Sagittal articular and incisal ways, sagittal articular and incisal corners 26. Parameters that characterize the movement of the lower jaw in the transverse direction. Transverse articular and incisal pathways, Bennett's angle and movement, Gothic angle 27. Central occlusion, occlusal contacts are normal. Classification of antagonistic surfaces by Jenkelson, the concept of stable and unstable occlusal contacts 28. Anterior occlusion, contacts are normal. Frontal guidance. Bonville's three-point contact 29. Lateral occlusion, contact options (occlusal concepts) 30. Supracontacts - etiology, classification 31. Devices that reproduce the movements of the lower jaw - classification, scope 32. The structure of articulators. Medium anatomical articulators - design features, indications for use 33. Adjustable articulators - design features, indications for use, methods of individual adjustment 34. Ways to transfer models to the articulator 35. Methods of registration of the position of the upper jaw and transfer of models to the articulator using the facial arch 36. Acrylic plastics - composition, properties, phases and modes of polymerization of plastics 37. Alginate impression masses - composition, properties, indications, technology of application 38. Silicone impression masses - composition, properties, indications, methods of obtaining impressions 39. Structural and functional changes of the dental apparatus with complete loss of teeth 40. Anatomical formations of the oral cavity, which are important in removable prosthetics. Flexibility and mobility of the mucous membrane, their consideration in removable prosthetics. Assessment of the condition of alveolar processes in edentulous areas, Elbrecht classification 41. Preparation of the oral cavity for prosthetics with complete removable dentures. 42. RAM constructions, their components. 43. Checking the design of complete removable dentures 44. Planning the design of dentures while maintaining single teeth on the jaws 45. Obtaining working prints for the manufacture of PZP - materials and techniques. Indications for fingerprints with individual spoons 46. The concept of fixation, stabilization, balance of removable dentures and the factors that provide them 47. The boundaries of the bases of complete removable plate prostheses on the upper and lower jaws 48. Errors in determining and fixing the ratio of the jaws 49. Artificial teeth for removable dentures - materials, types. Comparative characteristics of porcelain, composite, acrylic teeth. Rules of selection of artificial teeth. 50. Methods of artificial teeth in PZP; options for placing teeth in the frontal area. Anatomical landmarks for teeth placement. Occlusal concepts with full removable prosthetics 51. Technology of compression pressing of plastics. Methods of plastering reproductions of prostheses in the cuvette 52. Technology of foundry pressing of plastics. Equipment, materials. Directed polymerization mode. 53. Plastics for the manufacture of prosthetic bases. Classifications, composition, properties. Types and modes of polymerization 54. Errors when working with plastic, types of porosity 55. Methods of imposition and correction of PZP, recommendations to the patient on prosthesis care. Phases of adaptation to removable prostheses according to Courland 56. Recommended terms of use of different types of RAM. Indications for prosthesis replacement. Relocation of removable prostheses - indications, methods, materials 57. Repair of prostheses - technology. Causes of fracture of bases 58. Factors of influence of bases of prostheses and prosthetic materials on fabrics of a prosthetic bed. Classifications of prosthetic stomatitis 59. Traumatic prosthetic

stomatitis. Etiology, clinical manifestations, differential diagnosis and treatment 60. Toxic prosthetic stomatitis. Etiology, clinical manifestations, differential diagnosis and treatment 61. Allergic prosthetic stomatitis. Etiology, clinical manifestations, differential diagnosis and treatment 62. Additional laboratory methods of examination of patients with prosthetic stomatitis 63. Errors at the stage of fixing the ratio of the jaws and determining the occlusal height 64. Errors in obtaining prints 65. Errors at the stage of manufacturing a plastic base 66. Errors at the stage of examination of patients and planning the design of PZP 67. Errors in the imposition and correction of prostheses

Module 4 "Maxillofacial Orthopedics"

21. The role of maxillofacial orthopedics in providing medical care to patients with defects and deformities of the jaws and face that occurred after injuries, operations, and diseases; 22. Classifications of jaw fractures and the mechanism of displacement of fragments in jaw fractures; 23. Principles of organization of dental care in emergencies; 24. Methods of fixing partial removable dentures. 25. Volume of orthopedic care for maxillofacial wounded; 26. General characteristics of the maxillofacial apparatus and their classification; 27. Methods of making bent wire tires for the upper and lower jaws; 28. Technological stages of manufacturing various devices when displacing fragments; 29. Etiology, prevention and treatment of scar contractures; 30. Etiological factors and principles of treatment of incorrectly fused fractures; 31. Anatomical and physiological features of the hard and soft palate; 32. Features of orthopedic treatment of defects of hard and soft palate; 33. Clinical stages of making a face mask. 34. The mechanism of displacement of fragments in fractures of the upper and lower jaw. 35. Diagnosis of localization of fractures of the lower and upper jaw by displacement of fragments. 36. Localization of attachment of muscles that lead to movements of the lower jaw. 37. Influence of muscles on the mechanism of displacement of jaw fragments: contractile ability of muscles, elastic retraction of muscles. 38. General characteristics of maxillofacial devices, their classification, design features. 39. Distribution of devices by location, by function, by materials, by medical purpose. 40. Designs of devices: intraoral, intra-extraoral and 41. Etiology, clinical signs, pathogenesis of fractures of the jaws without displacement of fragments. 24. Standard and individual tires. 43. Types of bent Tigerstedt wire tires: smooth tire bracket, tire with strut, tire with inclined plane, tire with hook hooks. 44. Tires Entelis, Zbarzha, Vasileva, Gordashnikova. 45. Methods of making bent wire tires for the upper and lower jaws. 46. Rules of fixing tires on the jaw. Possible errors in splinting and means of their elimination. 48. Necessary tools and materials for the manufacture of tires. 49. Intermaxillary fixation in fractures of the mandible using smooth wire splints. 50. Etiology, clinical signs, pathogenesis of fractures of the jaws with a stable displacement of fragments. 51. Criteria for selecting the device when displacing fragments. 52. Treatment of fractures of the jaws with displacement of fragments in the vertical direction. 53. Treatment of fractures of the jaws with displacement of fragments in the sagittal direction. 54. Treatment of fractures of the jaws with displacement of fragments in the transverse direction. 55. Treatment of fractures of the jaws in the presence of toothless fragments. 56. Volume and types of specialized orthopedic dental care for maxillofacial wounded. 57. Indications for use, design of removable tires, clinical laboratory stages of manufacturing removable tires according to Weber, Vankevich, Limberg, Guning-Port. 58. Features of construction of removable tires depending on the nature and location of the fracture, the presence of teeth on the fragments and their condition, as well as associated complications. 59. Causes of improper growth of jaw fragments. 60. Pathological anatomy in fractures that have not fused properly. 61. Indications for surgical, prosthetic, orthodontic, instrumental-surgical methods of treatment of incorrectly fused fractures. 62. Principles of treatment of fractures that are incorrectly fused with fully preserved dentition, partial and complete loss of teeth. 63. General and local causes of the formation of a false joint, clinic, pathological anatomy. 64. Classifications of false mandibular joints (IM Oxman, V.Yu. Courland). 65. Treatment of fractures of the mandible that have not fused. 66. Indications for the use of removable and non-removable devices for a false joint. 67. Orthopedic measures for the treatment of false joints. 68. Production of prostheses with hinges: Oxman, Vanstein, Courland. Collapsible prostheses.

Folding prostheses. 69. Prevention of post-traumatic and postoperative deformities of the jaws. 70. Etiology and pathogenesis of narrowing of the oral cavity or microstomy. 71. Features of obtaining prints in patients with microstomy. 72. Technique of making a prosthesis that folds. 73. Technique of making a collapsible prosthesis. 74. Anatomical and physiological features of hard and soft palate. 75. Etiology, clinic, pathogenesis and orthopedic treatment of acquired hard and soft palate defects. 76. Historical aspects of orthopedic treatment of defects of hard and soft palate (obturators of Pare, Foshar, Suersen, Kingsley, Shiltsky). 77. Classification of obturators, types of connections. 78. Production of obturators at defects of a firm palate. 79. Methods of manufacturing obturators for soft palate defects. Methods of fixing obturators.

The list of practical skills for final module control

List of practical skills to be tested during the final module control in orthopedic dentistry Module 3

1. Examine the patient's mouth in the complete absence of teeth. 2. Obtain anatomical prints from the edentulous upper and lower jaws for the manufacture of individual spoons. 3. Make individual spoons on the upper and lower jaw. 4. Fit hard individual spoons. 5. Get functional prints from the upper and lower jaws. 6. Determine the central ratio of the jaws with defects of the dentition of group IV. 7. Check the design of complete removable dentures; 8. Check the fixation of complete removable dentures in the patient's mouth; 9. Carry out anatomical placement of teeth on the glass, on a spherical surface 10. Check the design of complete removable dentures 11. Fix complete removable dentures. 12. Carry out the correction of complete removable dentures Module 4 "Maxillofacial Orthopedics" 1. Conduct occlusion. 2. Conduct a clinical examination of patients with fractures of the jaws; 3. Carry out differential diagnosis between fractures of the jaws of different localization; 4. Apply transport splints and ligature teeth. 5. Get prints and determine the central ratio in the manufacture of forming devices. 6. Making a face mask. 7. Make a choice of denture design depending on the degree of narrowing of the oral cavity. 8. Get fingerprints in patients with microstomy.

Circumstance of admission to the final control	<p>1. Semester control at the end of the 1st semester is provided in the form of a differential credit. (Table 2) Provides a final score on a 120-point scale as the sum of scores for the current control of knowledge (oral examination, written survey, tests, verification of identification of micropreparations, abstracts), the results of 2 content modules.</p> <p>2. Students are allowed to take the differentiated credit, exam only if there is no debt for the implementation of the curriculum.</p>
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7. Course policy

The organization of the educational process is carried out with the use of the European Credit Transfer System (ECTS) to assess student performance. The points gained in the current survey, independent work and points of the final control are credited. This must take into account the student's presence in class and his activity during practical work. Inadmissible: absences and late classes; use of a mobile phone, tablet or other mobile devices during the lesson (except for the cases provided by the curriculum and methodical recommendations of the teacher); copying and plagiarism; untimely performance of the task, the presence of unsatisfactory grades for 50% or more of the submitted theoretical and practical material.

8. RECOMMENDED LITERATURE

1. Basic:

1. Klemin VA Orthopedic dentistry. Textbook / VA Klemin, VE Zhdanov. –K. : VSI «Medicine», 2010. -224p. Recommended by the Ministry of Education and Science of Ukraine as a textbook for students of higher medical educational institutions of the IV level of accreditation GRIFF LETTER № 1 / 11-10347 dated 09.11.2010.
2. Makeev VF, Stupnitsky RM Theoretical foundations of orthopedic dentistry (textbook). –Lviv: Danylo Halytsky LNMU, 2010, -394 p.
3. Nespryadko VP, Rozhko MM Orthopedic dentistry. Kyiv, Book Plus, 2003.
4. Chulak LD, Shuturminsky VG Clinical and laboratory stages of denture manufacturing. Odessa. Odessa honey. University, 2009, 318p.
5. Emergency care in dentistry / VA Klemin, AV Pavlenko, VN Arendaryuk, etc. Ed.

В.А.Клемина. –Donetsk: Publisher Zaslavsky A.Yu., 2011. -144p.

6. Rozhko MM, Nespryadko VP, Mikhailenko TN etc. Dental prosthetic equipment.

- К .; Book Plus, 2006. - 544 p.

2.Additional:

1. Barava GM, Strelkovsky KM Technique of making maxillofacial prostheses. - К., 1992.

2. Levitov AN, Rubanenko VV, King MD Maxillofacial orthopedics: a course of lectures.- Poltava, 1995. - 80 p.

3. Attacks AL Articulation and prosthetics in dentistry.- К .: Health, 1984.

4. Fundamentals of deontology in dentistry. Handbook for students and doctors / Ed. GP Ruzina. - Vinnytsia: New book, 2008. -120p.

5. Maevski SV Dental gnathophysiology. Norms of occlusion and functions of the dental system / Maevski SV - Lviv: GalDent. - 2008. -144p.

6. Klemin VA Dental crowns made of polymeric materials. –М .: MED press-inform, 2004. -176p.

7. VA Klemin. Morphofunctional and clinical assessment of teeth with hard tissue defects / VA Klemin, AV Borisenko, PV Ishchenko. - М .: MED press-inform, 2003. - 111p.

8. Klemin VA Diagnostic model of the jaw / VA Klemin. - М .: МЕДпресс-информ, 2006. -256с.

9. Aesthetic aspects of restorative dentistry (monograph) / VN Shabanov, AP Pedorets, OV Shabanov, VA Klemin. Elista: ZAORNPP

Ginger, 2010. -111p.

10. Bida VI Pathological abrasion of the hard tissues of the teeth and basic principles its treatment (Training manual). - К .: OJSC "Publishing House Kyivska Pravda, 2002. - 96p.

11. Borisenko AV, Nespryadko VP Composite filling and facing materials. A practical guide. - Kiev, Book Plus, 2002.

Lector



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