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

"APPROVED"

Acting Head of the Department
_____Oleksandr BIDA

WORKING PROGRAM OF EDUCATIONAL DISCIPLINE

" Orthopedic dentistry "

LEVEL OF HIGHER EDUCATION Second (master's) level
DEGREE OF HIGHER EDUCATION Master's degree
BRANCH OF KNOWLEDGE 22 Healthcare
SPECIALTY 221 Dentistry
COURSE 3

Reviewed and approved
at the meeting of the Department of Dentistry
Protocol No. 1 of "31". 08. 2022

Kyiv 2022

Working program of educational discipline Orthopedic Dentistry for the training of students of higher education of the second (master's) level of higher education in the specialty *221 Dentistry* .

Developers: Doctor of Medicine, Prof. Kuts V.P. , assistant V.V. Shabranska

Approved by the Central Methodical Council of the Academy Protocol No. 1 of 31.08 2022

Agreed

First Vice-Rector  Oleksandra SOROKA

1. Description of the academic discipline

<table>
<tr><td rowspan="2">Name of indicators</td><td rowspan="2">Field of knowledge, direction of training, educational and qualification level</td><td colspan="2">Characteristics of the academic discipline</td></tr>
<tr><td>full-time education</td><td>external form of education</td></tr>
<tr><td rowspan="2">The number of credits is 10.0</td><td>Branch of knowledge
_ 22 Healthcare
(code and name)</td><td colspan="2" rowspan="2">Normative
(optional)</td></tr>
<tr><td></td></tr>
<tr><td>Modules - 2</td><td rowspan="5">Specialty:
221 Dentistry</td><td colspan="2">A year of training</td></tr>
<tr><td>Content modules – 7</td><td>2022</td><td>2023</td></tr>
<tr><td>Individual research task
_____
(name)</td><td colspan="2" rowspan="2">Semester</td></tr>
<tr><td>The total number of hours is 210</td></tr>
<tr><td>5th</td><td>the 6th</td></tr>
<tr><td rowspan="11">Weekly hours for full-time education:
classrooms - 1 40
independent student work - 70</td><td rowspan="11">Educational - qualification level :
of the second (master's) level of higher education in specialty 221 Dentistry</td><td colspan="2">Lectures</td></tr>
<tr><td>10 hours</td><td>10 hours</td></tr>
<tr><td colspan="2">Practical, seminar</td></tr>
<tr><td>40 hours</td><td>60 hours</td></tr>
<tr><td colspan="2">Laboratory</td></tr>
<tr><td>hours</td><td>hours</td></tr>
<tr><td colspan="2">Independent work</td></tr>
<tr><td>25 hours</td><td>8 hours</td></tr>
<tr><td colspan="2">Individual tasks:</td></tr>
<tr><td colspan="2">hours</td></tr>
<tr><td colspan="2">Type of control:</td></tr>
<tr><td>Diff. exam</td><td>Diff. exam</td></tr>
</table>

Note .

The ratio of the number of hours of classroom classes to independent and individual work is (%):

for full-time education - 66.7% : 33.3%

INTRODUCTION

The study program of the study discipline "Orthopedic Dentistry" was compiled in accordance with the project of the Standard of Higher Education of Ukraine (hereinafter - Standard)
of the second (master's) level
(name of higher education level)
fields of knowledge 22 Healthcare
(code and name of field of knowledge)
specialties 221 Dentistry
(code and specialty name)
discussed at the XIII All-Ukrainian scientific and practical conference with international participation "Actual issues of the quality of medical education" (May 12-13, 2016, Ternopil) and the sample curriculum for training specialists of the second (master's) level of higher education in the field of knowledge 22 "Health care" I" in higher educational institutions of the Ministry of Health of Ukraine, specialty 221 "Dentistry", educational qualification "Master of Dentistry", professional qualification "Dentist", approved by the Ministry of Health of Ukraine on 26.07.2016.

Description of the academic discipline (abstract)

Orthopedic dentistry is an educational discipline that enables students to master in the clinic certain dental manipulations used in the treatment of patients with defects of the crown part of the tooth, with partial defects of the dentition. The special (professional) competences acquired in this way will be used by students in the future in the process of treating dental patients with an orthopedic profile. Students get acquainted with the organization and work of clinical offices, the preparation of documentation.

The subject of study of the educational discipline **" Orthopedic Dentistry " is the orthopedic treatment of diseases of the maxillofacial apparatus:**

- defects of the crown part of individual teeth

- partial loss of teeth

Interdisciplinary connections

"Orthopedic dentistry" as a discipline

a) is based on students' previous study of human anatomy; histology, embryology and cytology, medical biology, medical chemistry, biological and bioorganic chemistry, medical physics, microbiology, virology and immunology and integrates with these disciplines;

b) lays the foundations for students to study such clinical disciplines as orthopedic dentistry, therapeutic dentistry, orthodontics, surgical dentistry;

c) is based on the study by students of propaedeutic disciplines of the dental profile: propaedeutics of orthopedic dentistry, propaedeutics of therapeutic dentistry and propaedeutics of children's therapeutic dentistry and is integrated with these disciplines;

d) integrates with the following clinical disciplines: prevention of dental diseases, children's therapeutic dentistry and therapeutic dentistry, surgical dentistry.

1. **The purpose and tasks of the educational discipline**

1.1. **The purpose of studying an academic discipline " Orthopedic dentistry" is** mastering on patients the technique of performing certain dental manipulations, which are used in the treatment of patients with defects of the crown part of the tooth, with partial edentia, for the possibility of their further application in the treatment of patients and the formation of special (professional) competencies in the clinic of orthopedic dentistry .

1.2. **The main tasks of studying the discipline " orthopedic dentistry " are:**

Examination of patients in the orthopedic dentistry clinic

- Functional anatomy and clinical biomechanics of the maxillofacial apparatus
- Analgesia in the clinic of orthopedic dentistry. Emergency situations
- Clinical and laboratory stages of manufacturing artificial crowns
- Clinical and laboratory stages of manufacturing bridge prostheses
- Examination of patients with partial loss of teeth. General characteristics and design planning of partial removable prostheses
- Clinical and laboratory stages of manufacturing partial removable lamellar prostheses
- Clinical and laboratory stages of the production of braced prostheses and prostheses with a cast metal base
- Adaptation to removable prostheses and the impact of prostheses on the tissues of the oral cavity

1.3. **Competences and learning outcomes,** the formation of which contributes to the discipline (relationship with the normative content of the training of higher education applicants, formulated in terms of learning outcomes in the Standard).

According to the requirements of the Standard, the discipline ensures that students acquire *the following competencies:*

- *integral:*

The ability to solve tasks and problems in the field of health care in the specialty "Dentistry" in professional activity or in the learning process, which involves conducting research and/or implementing innovations.

- *general:011*

1. Ability to abstract thinking, analysis and synthesis; the ability to learn and be modernly educated.
2. Knowledge and understanding of the subject area and understanding of the profession.
3. Ability to apply knowledge in practical situations.

4. Ability to communicate in the national language both orally and in writing. Ability to communicate in a second language.
5. Skills in using information and communication technologies.
6. Ability to search, process and analyze information from various sources.
7. Ability to adapt and act in a new situation; ability to work autonomously.
8. Ability to identify, pose and solve problems.
9. Ability to choose a communication strategy.
10. Ability to work in a team.
11. Interpersonal skills.
12. The ability to act on the basis of ethical considerations (motives).
13. Skills of performing safe activities
14. The ability to evaluate and ensure the quality of the work performed.
15. The desire to preserve the environment.
16. The ability to act socially responsibly and civically.

- *special (professional, subject):*

1. To recognize the moral and ethical and professional rules of activity of a dentist.

2. Understand the moral and deontological principles of a medical specialist and the rules of professional subordination in a clinic of orthopedic dentistry.
3. Learn to promote a healthy psychological microclimate in the team; learn the legal norms of the dentist-patient relationship.

4. Demonstrate examination of the patient.
- Be able to establish a preliminary and final diagnosis based on examination data (clinical and laboratory).
- Be able to propose an orthopedic treatment plan.
- Be able to choose a plan for preparing the patient's oral cavity for prosthetics.
- Learn the examination method - occluder
- To study the method of obtaining an impression for the production of solid cast fixed structures
- Know the method of obtaining impressions for the manufacture of stamped and stamped-soldered prostheses
- Study the sequence of fixation of central occlusion with 1 group of defects using occlusion blocks
- Determination of the position of the upper jaw using the facial arch
- Know the sequence of application of the facial arch
- Learn the sequence of models in the articulator using the face bow.
- Know methods of pain relief during tooth preparation
- Know the types of gum retraction
- Know the sequence of teeth preparation for a stamped metal crown.
- Know the sequence of teeth preparation for solid metal and combined crown

- To study the design planning of a bridge-like prosthesis
- Know the sequence of checking the design of artificial crowns
- Know the sequence of checking the construction of a bridge-like prosthesis.
- Learn the technique of fixing crowns and bridge-like prostheses
- Know the methods of removing crowns.

5. Demonstrate dental manipulations on patients
- Know the sequence of obtaining an anatomical impression from the lower and upper jaws for the manufacture of partial removable prostheses
- To study the methods of determining and fixing the central ratio of the jaws in 2.3 groups of defects with the help of occlusal rollers
- Master the planning of the design of a partial removable prosthesis.
- To master the stages of parallelometry of the diagnostic model and to plan the clasp fixation of the brace prosthesis
- Learn the sequence of checking the design of a partial removable prosthesis
- To study the correction of a partial removable prosthesis
- Know the sequence of rebasing a partial removable prosthesis

6. Distinguish the features of the application of the principles of asepsis and antiseptics in the clinic of orthopedic dentistry:
* to study modern requirements for sterilization of instruments in the clinic of orthopedic dentistry;
* to realize the importance of observing the rules of asepsis and antiseptics at the dental appointment;
* learn the norms of control over the effectiveness of sterilization;
* determine methods of preventing conditions for the spread of infection in medical institutions.

Detailing of competences in accordance with the descriptors of the NRC in the form of "Matrix of competences".

Matrix of competences

No	Competence	Knowledge	Skill	Communication	Autonomy and responsibility
	General competences				
1	Ability to abstract thinking, analysis and synthesis; the ability to learn and be	To know the current trends in the development of the industry and the indicators	Be able to analyze professional information, make informed decisions,	Set the appropriate ones connections to achieve goals	To be responsible for the timely acquisition of modern knowledge

	modernly educated	characterizing them	acquire up-to-date knowledge		
2	Knowledge and understanding of the subject area and understanding of the profession	To know the peculiarities of the professional activity of a dentist	To be able to carry out professional activities that require updating and integration of knowledge	Form a communication strategy in professional activities	Be responsible for continuous professional development with a high level of autonomy
3	Ability to apply knowledge in practical situations	Know the methods of implementing knowledge in solving practical tasks	Be able to use professional knowledge to solve practical problems	Establish connections with subjects of practical activity	To be responsible for the justification of the adopted decisions.
4	Ability to communicate in the national language both orally and in writing. Ability to communicate in a second language	Know the state language, including the professional direction. Possess a foreign language at a level sufficient for a professional communication	Be able to use the state language and a foreign language for professional activities and communication	Form a communication strategy in professional activities	Be responsible for continuous professional development with a high level of autonomy
5	Skills in using information and communication technologies	Have modern knowledge in the field of information and communication technologies used in professional activities	To be able to use information and communication technologies in a professional field that requires updating and integration of knowledge	Use information and communication technologies in professional activities	Be responsible for continuous development of professional knowledge and skills
6	Ability to search,	Have the necessary	To be able to use information	Use information	Be responsible for continuous

	process and analyze information from various sources	knowledge in the field of information technologies used in professional activities	technologies in the professional field to find, process and analyze new information from various sources	technologies in professional activities	development of professional knowledge and skills
7	Ability to adapt and act in a new situation; ability to work autonomously	Know the methods of implementing knowledge in solving practical tasks	To be able to use professional knowledge for adaptation and actions in a new situation	Establish connections with subjects of practical activity	To be responsible for the quality of the performance of professional tasks in a new situation
8	Ability to identify, pose and solve problems	Know the methods of implementing knowledge in identifying, setting and solving problems of professional activity	To be able to use professional knowledge to identify, pose and solve problems of professional activity	Establish connections with subjects of practical activity with for the purpose of detection, formulation and solution problems of professional activity	To be responsible for the validity of the decisions made regarding the solution problems of professional activity
9	Ability to choose a communication strategy	Know the methods of implementing knowledge in choosing a communication strategy with patients and colleagues	Be able to use knowledge to choose a communication strategy with patients and colleagues	Form a communication strategy in professional activities	Be responsible for continuous professional development with a high level of autonomy
10	Ability to work in a team.	Know the ways of collective interaction while	To be able to use knowledge to choose a communication strategy	Form a communication strategy in professional activities.	To be responsible for continuous professional development

		working in a team	during collective interaction		
11	Skills of interpersonal interaction	Know the methods of interpersonal interaction when communicating with colleagues and patients	To be able to use knowledge to choose a communication strategy during interpersonal interaction	Form a communication strategy in professional activities.	Be responsible for continuous professional development with a high level of autonomy
12	The ability to act on the basis of ethical considerations (motives)	Know the moral and ethical principles of a medical specialist and the rules of professional subordination	Use the moral and ethical principles of a medical specialist and the rules of professional subordination in practical activities	To observe the moral and ethical principles of a medical specialist and the rules of professional subordination during professional activity	To bear personal responsibility for observing the moral and ethical principles of a medical specialist and the rules of professional subordination
13	Skills of performing safe activities	The ability to assess the level of danger when performing professional tasks	Be able to carry out professional activities in compliance with safety rules	To ensure high-quality performance of professional compliance work safety rules	Be personally responsible for compliance with safety rules when performing professional tasks
14	The ability to evaluate and ensure the quality of the work performed	Ability to evaluate and ensure quality in the performance of professional tasks	Know the methods of evaluating performance quality indicators	Be able provide quality performance of professional work	Establish connections to ensure quality performance of works
15	The desire to preserve the environment	Ability to assess the state of the environment	Be able to analyze environmental quality indicators.	Ensure quality performance of professional tasks in terms of environmental	To bear personal responsibility for compliance with the rules of

				protection	environmental protection when performing professional tasks
16	The ability to act socially responsibly and civically	Know your social and public rights and responsibilities	To form one's civic consciousness, to be able to act in accordance with it	Ability convey their public and social position	To bear responsibility for one's civic position and activities
	Special (professional competences)				
1	To recognize the moral and ethical and professional rules of activity of a dentist	Know the basic provisions of the Code of Ethics for a dentist	Use in practical activities Code of ethics of a dentist	Observe the regulations when communicating with patients and colleagues Ethical code of the dentist	Bear personal responsibility for compliance with provisions in practical activities Code of ethics of a dentist
2	Understand the moral and deontological principles of a medical specialist and the rules of professional subordination in a clinic of orthopedic dentistry	Know the moral and deontological principles of a medical specialist and the rules of professional subordination in a clinic of orthopedic dentistry	To use in practical activities the moral and deontological principles of a medical specialist and the rules of professional subordination in the clinic of orthopedic dentistry	To adhere to the moral and deontological principles of a medical specialist and the rules of professional subordination in the clinic of orthopedic dentistry during professional activity	To bear personal responsibility for observing the moral and deontological principles of a medical specialist and the rules of professional subordination in the clinic of orthopedic dentistry
3	Learn to promote a healthy psychological microclimate in the	Know the current legal norms of the dentist-patient relationship	To use the legal norms of dentist-patient relationship in practical activities. To be able to	To be observed during professional activity valid legal norms of	Bear personal responsibility for compliance with current legal norms of the dentist-patient

	team; learn the legal norms of the dentist-patient relationship		form a healthy psychological microclimate in the team	the relationship "dentist - patient. Support healthy psychological microclimate in the team	relationship
4	- to be able to establish a preliminary and final diagnosis based on examination data (clinical and laboratory); - to be able to propose a plan of orthopedic treatment; - to be able to choose a plan for preparing the patient's oral cavity for prosthetics; - to learn the examination method - ocludo-gram; - to study the method of obtaining an impression for the production of solid cast fixed structures; - to know the	Know the equipment of the dental office, basic dental tools, composition, properties and indications for the use of dental materials used are trained in the clinic of orthopedic dentistry	To be able to use the equipment of the dental office, basic dental instruments and dental materials used in the clinic of orthopedic dentistry;	Interact with junior medical staff. At using dentist's equipment gic office, basic dental tools and dental materials, that used get ready in the clinic orthopedic stomatology	To bear personal responsibility for the correct use of dental office equipment, basic dental tools and dental materials used are trained in the clinic of orthopedic dentistry

	method of obtaining impressions for the production of stamped and stamped-soldered prostheses; - study the sequence of fixation of the central occlusion with 1 group of defects with the help of occlusion blocks; - determining the position of the upper jaw with the help of the facial arch; - to know the sequence of application of the facial arch; - study the sequence of models in the articulator using the facial arch; - to know methods of pain relief during tooth preparation; - know the types of gum retraction;				

	- to know the sequence of pre-pairing of teeth under a stamped meta-left crown; - to know the sequence of preparation of teeth for a solid metal crown and a combined crown; - to study the planning of the construction of a bridge-like prosthesis; - to know the sequence of checking the construction of artificial crowns; - to know the sequence of checking the construction of a bridge-like prosthesis; - to study the method of fixation of crowns and bridge-like prostheses; - know the methods of removing				

	crowns				
5	- to know the sequence of obtaining an anatomical impression from the lower and upper jaws for the production of partial removable prostheses; - to study the methods of determining and fixing the central ratio of the jaws in 2.3 groups of defects with the help of occlusion rollers; - learn the planning of the construction	Know the algorithms of execution on phantoms	To be able to perform dental manipulations on phantoms.	Communicate and interact with colleagues and the teacher while performing dental manipulations on phantoms	To bear personal responsibility for the correct performance of stomatological manipulations on phantoms

	of a partial removable prosthesis; - to master the stages of parallelomet-development of the diagnostic model and plan the clasp fixation of the brace prosthesis; - learn the sequence of checking the construction of a partial removable prosthesis; - study the correction of a partial removable prosthesis; - to know the sequence of re-basing a partial removable prosthesis				
6	Distinguish the features of the application of the principles of asepsis and antiseptics in the clinic of orthopedic dentistry: - to study the	Know the basic principles aseptics and antiseptics in the clinic of orthopedic dentistry, modern methods of disinfection and	Be able to organize disinfection and sterilization of dental equipment and tools; control the effectiveness of sterilization	Understand the importance of following the rules of asepsis and antiseptics at the dental appointment	Determine methods of preventing conditions for the spread of infection in medical institutions. To bear personal responsibility for compliance

	modern requirements for sterilization of instruments in the children's dentistry clinic; - learn the importance of observing the rules of asepsis and antiseptics at the dental appointment; - learn the norms of control over the effectiveness of sterilization; - determine methods of preventing conditions for the spread of infection in medical institutions	sterilization of dental equipment and instruments			with the norms of asepsis and antiseptics at the dental appointment

Learning outcomes:

Integrative final program learning outcomes, the formation of which is facilitated by the educational discipline "orthopedic dentistry":

1. Demonstrate mastery of the moral and deontological principles of a medical specialist and the principles of professional subordination in a clinic of orthopedic dentistry.

2. To demonstrate the ability to examine patients with defects of hard tissues and partial defects of dentition in the clinic of orthopedic dentistry.

and removable dentures

3. To demonstrate the performance of dental manipulations in patients with defects of hard tissues and partial defects of dentition in the clinic of orthopedic dentistry.

Learning outcomes for the discipline.

As a result of studying the educational discipline "orthopedic dentistry", the student should **know:**

Module 1 "Fixed prosthetics"

1. Examination of patients in orthopedic dentistry - stages, basic and additional methods of examination, medical documentation
2. Stage of subjective examination. Pathological conditions and general somatic diseases, which are risk factors at the dental appointment
3. Examination of the temporomandibular joint (main and additional methods)
4. Examination of masticatory muscles (main and additional methods).
5. Examination of the mucous membrane of the oral cavity. Mobility and flexibility of the mucous membrane, classification according to Suppli.
6. Examination of teeth and dental rows (main and additional methods). Classification of dentition defects according to Kennedy and Betelman
7. Examination of periodontal tissues (main and additional methods)
8. X-ray examination methods in orthopedic dentistry
9. Methods of recording movements of the lower jaw
10. Electromyography
11. Assessment of occlusal ratios of dental rows. Occlusionography. Electronic analysis of occlusion T-Scan
12. Static and dynamic methods of evaluation of chewing efficiency
13. Preliminary and final diagnosis. Peculiarities of making a diagnosis in the clinic of orthopedic dentistry. Orthopedic treatment planning and pre-prosthetic preparation
14. Functional anatomy of masticatory muscles. Synergism and coordinated antagonism, the state of relative physiological rest of the masticatory muscles
15. Innervation and reflex regulation of the maxillofacial apparatus
16. Functional anatomy of the temporomandibular joint
17. Anatomy of periodontal tissues, structure of the tooth-alveolar junction. Reserve and residual durability of periodontal tissues. Physiological and pathological mobility of teeth
18. Anatomy of dentition, physiological and pathological bites. Factors that ensure the stability of the position of the teeth. Ways and mechanisms of redistribution of masticatory pressure, buttresses of the skull
19. Anatomy of the occlusal surface of dental rows and individual teeth, sagittal and transverse occlusal curves. Anatomical and functional occlusal surface, occlusal compass.

20. Biomechanics of lower jaw movements. Phases of chewing movements according to Guizi. Occlusion and articulation, types of occlusion, factors of occlusion
21. Movement of the lower jaw in the vertical direction. Terminal pivot axis, Posset diagram
22. Parameters characterizing the movement of the lower jaw in the sagittal direction. Sagittal articular and incisal paths, sagittal articular and incisal angles
23. Parameters characterizing the movement of the lower jaw in the transverse direction. Transverse articular and incisal paths, Bennett's angle and movement, Gothic angle
24. Central occlusion, occlusal contacts are normal. Classification of antagonizing surfaces according to Jenkelson, concepts of stable and unstable occlusal contacts
25. Anterior occlusion, contacts are normal. Frontal driving. Bonville three-point contact
26. Lateral occlusion, contact options (occlusal concepts)
27. Supracontacts - etiology, classification
28. Devices that reproduce the movements of the lower jaw - classifications, areas of application
29. The structure of articulators. Medium anatomical articulators - design features, indications for use
30. Adjustable articulators - design features, indications for use, methods of individual adjustment
31. Methods of transferring models to the articulator
32. The technique of registering the position of the upper jaw and transferring the models to the articulator using the facial arch
33. Pain, mechanism of occurrence, ways of conducting. Theories of the occurrence of toothache. Innervation of the maxillofacial area
34. Types of analgesia in outpatient dental practice. Indications for local anesthesia in orthopedic dentistry
35. Conductive analgesia on the upper jaw, methods
36. Conductive analgesia on the lower jaw, methods
37. Methods of infiltration analgesia in the oral cavity, indications
38. Analgesia during preparation of frontal teeth of the upper jaw.
39. Analgesia during preparation of premolars of the upper jaw.
40. Analgesia during preparation of molars of the upper jaw.
41. Analgesia during preparation of the front teeth of the lower jaw.
42. Analgesia during preparation of mandibular premolars.
43. Analgesia during preparation of molars of the lower jaw.
44. Modern local anesthetic agents - mechanism of action, classification, indications for use
45. General complications of injection anesthesia - causes, ways of prevention
46. Local complications of injection anesthesia - causes, ways of prevention

47. Emergencies at a dental appointment - allergic reactions of the immediate type. Clinical picture, first aid
48. Emergency conditions at a dental appointment - hypertensive crisis, angina pectoris, myocardial infarction. Clinical picture, first aid
49. Emergency conditions at a dental appointment - dizziness, collapse. Clinical picture, first aid
50. Emergency conditions at a dental appointment - an attack of bronchial asthma. Clinical picture, first aid
51. Etiology of defects of the crown part of teeth. Defect classifications, Milikevich index. Types of orthopedic structures for replacing defects of the crown part of teeth, indications
52. Artificial crowns - indications, classifications, comparative characteristics. Materials and technologies for manufacturing artificial crowns
53. Oral cavity preparation for prosthetics. Requirements for teeth that are used as a support for fixed orthopedic structures
54. Indications for depulping of supporting teeth. Indications for reinforcing abutment teeth with pin structures
55. Toolkit for preparing teeth for fixed orthopedic structures
56. Rules for preparation of teeth for fixed orthopedic structures, safety measures, methods of controlling the depth of preparation of hard tissues
57. Protection of welcome teeth during and after preparation. Provisional structures, dentine sealants
58. Complications during and after tooth preparation - causes, consequences, ways of prevention
59. Methods of preparing teeth for artificial crowns
60. Marginal adaptation of artificial crowns, options for pre-orbital preparation, types of ledges
61. Gum retraction, types, methods, indications
62. Stamped metal crowns - indications and contraindications, clinical stages of production
63. Solid metal crowns - indications and contraindications, clinical stages of production
64. One-piece combined crowns - indications and contraindications, clinical stages of production
65. Stamped metal crowns - laboratory stages of production
66. Solid metal crowns – laboratory stages of production
67. One-piece combined crowns - laboratory stages of production
68. Provisional crowns - indications, purpose of use, types. Materials for making provisional crowns
69. Methods of direct production of provisional structures
70. Laboratory method of making provisional crowns
71. Acrylic plastics - composition, properties, phases and modes of polymerization of plastics
72. Metal alloys for the manufacture of fixed orthopedic structures - classification, properties, application technologies

73. Technology of casting frames of non-removable orthopedic structures. Shrinkage of alloys and methods of its compensation
74. Spillway systems - types, construction rules. Methods of melting and casting metal alloys
75. Refractory masses - types, composition, properties
76. Technology of soldering parts of stamped and brazed structures. Solders - types, composition, properties, requirements. Fluxes. Solderless method of connecting parts of bridge-like prostheses
77. Gypsum - types, composition, properties
78. Alginate impression materials - composition, properties, indications, application technology
79. Silicone impression materials - composition, properties, indications, methods of obtaining impressions
80. Bridge-like prostheses - indications, classifications, materials and manufacturing methods. Peculiarities of preparation of supporting teeth. Comparative characteristics of solid-cast and stamped-soldered structures
81. Biomechanics of bridge prostheses, structural features, types of supporting elements. The relationship of the intermediate part to the alveolar process
82. Indications, clinical stages of prosthetics with single-cast bridge prostheses
83. Indications, clinical stages of prosthetics with stamped-soldered bridge prostheses
84. Laboratory stages of prosthetics with one-piece bridge prostheses
85. Laboratory stages of prosthetics with stamped and soldered bridge prostheses
86. Factors that ensure fixation of fixed prostheses.
87. Indications for temporary fixation of non-removable structures. Materials for temporary fixation of orthopedic structures. Provisional cements
88. Zinc - phosphate cements - composition, physical and chemical properties, indications and methods of application
89. Glass ionomer cements - composition, physicochemical properties, indications and methods of application
90. Composite cements - composition, physical and chemical properties, indications and methods of application
91. Errors and complications in obtaining prints. Causes, consequences, ways of prevention
92. Errors and complications during tooth preparation. Causes, consequences, ways of prevention
93. Errors at the laboratory stages of manufacturing stamped crowns
94. Errors at the laboratory stages of manufacturing stamped-soldered bridge-like prostheses
95. Errors at the laboratory stages of manufacturing solid crowns
96. Errors at the laboratory stages of manufacturing one-piece bridge prostheses
97. Errors at the laboratory stage of manufacturing plastic crowns
98. Errors during examination of patients and planning of orthopedic treatment

99. Errors during design verification and cementation of fixed orthopedic structures

Module 2 "Partial removable prosthetics"

1. Basic and additional methods of examination of patients with partial loss of teeth
2. Structural and functional changes in the maxillofacial apparatus with partial loss of teeth
3. Anatomical formations of the oral cavity that are important for removable prosthetics. Flexibility and mobility of the mucous membrane, their consideration in removable prosthetics. Assessment of the condition of alveolar processes in edentulous areas, classification according to Elbrecht
4. Preparation of the oral cavity for prosthetics with removable partial dentures. Requirements for supporting teeth
5. Designs of special equipment, their constituent parts. Peculiarities of the transformation of masticatory pressure by various types of CHZP
6. Partial removable lamellar prostheses - indications, clinical stages of manufacture
7. Partial removable lamellar prostheses with a metal base - indications, clinical stages of manufacture
8. Bügel prostheses - indications, construction planning depending on clinical conditions . Selection of abutment teeth, requirements, preparation
9. Checking the construction of partial removable prostheses
10. Planning the construction of prostheses while preserving single teeth on the jaws
11. Planning of fixing of special equipment. Staple lines. Factors affecting the choice of fixing elements in removable prostheses
12. Obtaining working impressions for the production of CZP - materials and methods. Indications for obtaining impressions using individual spoons
13. The concept of fixation, stabilization, balance of removable prostheses and the factors that provide them
14. Clips - classifications, designs, manufacturing methods. Factors determining the choice of the type of stapler
15. Lock fasteners (attachmen) - classifications, designs, indications
16. Beam fasteners - types, designs, indications
17. Telescopic fasteners - types, designs, indications
18. Limits of the bases of partial removable lamellar prostheses on the upper and lower jaws
19. Variants of the location of the arches of the brace prostheses on the upper and lower jaws. Arc parameters
20. Groups of dentition defects according to Betelman, clinical characteristics
21. The method of determining and fixing the central ratio of the jaws in the second group of defects according to Betelman
22. The method of determining and fixing the central ratio of the jaws in the third group of defects according to Betelman. Methods of determining the

occlusal height. Methods of determining the central ratio of the jaws
23. The technique of fixing the central occlusion with occlusal blocks and gypsum blocks. Production technology of occlusive rollers, requirements for rollers
24. Methodology of hot and cold methods of fixing the central ratio with the help of occlusion rollers
25. Errors in determining and fixing the ratio of the jaws
26. Artificial teeth for removable prostheses - materials, types. Comparative characteristics of porcelain, composite, acrylic teeth. Rules for choosing artificial teeth
27. Techniques for placing artificial teeth in the emergency department; options for placing teeth in the frontal area. Anatomical guidelines for setting teeth. Occlusal concepts in partial removable prosthetics
28. Technology of compression pressing of plastics. Methods of plastering reproductions of prostheses in a cuvette
29. Technology of foundry pressing of plastics. Equipment, materials. Directional polymerization mode.
30. Plastics for the manufacture of denture bases. Classifications, composition, properties. Types and modes of polymerization
31. Errors when working with plastic, types of porosity
32. The technique of applying and correcting the CZP, recommendations for the patient on the care of the prosthesis. Phases of adaptation to removable prostheses according to Kurlyandskyi
33. Parallelometry - purpose, tasks, methods of implementation
34. Planning of fixing elements in hook-and-loop prostheses depending on clinical conditions. Calibration of models
35. Preparation of models for duplication. Duplicating masses - types, composition, application technology. Production of fireproof models
36. Modeling of the wax reproduction of the frame of the brace prosthesis. Types of downspout system, construction rules
37. Ney's clamp system, indications for use
38. Classification of molding compounds, composition, properties, indications for use
39. Metal alloys for the manufacture of frameworks of braced prostheses and prostheses with a metal base. Cobalt-chromium alloy - composition, technological and physico-chemical properties, temperature regime
40. Shrinkage of the alloy during casting, types. Methods of compensating the shrinkage of alloys during casting of frames of removable and non-removable structures
41. Technologies of Lithuania in dentistry. Methods of melting and casting of metals. Spillway systems - types, construction rules
42. Recommended terms of use of various types of special permits. Indications for replacement of prostheses. Rebasing of removable prostheses - indications, methods, materials
43. Repair of prostheses (replacement of a clasp, addition of a tooth, repair of

the base) - technology. Causes of base fracture

44. Factors affecting the bases of prostheses and prosthetic materials on the tissues of the prosthetic bed. Classifications of prosthetic stomatitis
45. Traumatic prosthetic stomatitis. Etiology, clinical manifestations, differential diagnosis and treatment
46. Toxic prosthetic stomatitis. Etiology, clinical manifestations, differential diagnosis and treatment
47. Allergic prosthetic stomatitis. Etiology, clinical manifestations, differential diagnosis and treatment
48. Additional laboratory methods of examination of patients with prosthetic stomatitis
49. Errors at the stage of fixing the ratio of the jaws and determining the occlusal height
50. Errors when receiving prints
51. Errors at the stage of manufacturing the plastic base
52. Errors at the stage of examination of patients and planning of the design of the emergency room
53. Errors at the stage of molding the frameworks of prostheses
54. Errors in fitting and correcting prostheses

As a result of studying the educational discipline "orthopedic dentistry", the student should be **able to:**

Module 1 "Fixed prosthetics"

1. Conduct an examination of the patient. Establish a preliminary and final diagnosis based on examination data (clinical and laboratory).
2. To propose an orthopedic treatment plan.
3. To propose a plan for preparing the patient's oral cavity for prosthetics.
4. Occludogram
5. Obtain an impression for the manufacture of integral fixed structures
6. Obtaining impressions for the manufacture of stamped and stamped-soldered prostheses
7. Fix the central occlusion with 1 group of defects using occlusion blocks
8. Determination of the position of the upper jaw using the facial arch
9. Transferring the models to the articulator using the facial arch
10. Analysis of occlusion on diagnostic models in the articulator.
11. Analgesia during tooth preparation
12. Perform gum retraction
13. Preparation of teeth for a stamped metal crown.
14. Preparation of teeth for solid metal and combined crowns
15. Planning the design of a bridge-like prosthesis
16. Checking the design of artificial crowns
17. Checking the design of a bridge-like prosthesis.
18. Fixation of crowns and bridge-like prostheses
19. Removal of crowns.

Module 2 "Partial removable prosthetics"

1. Conduct an examination of the patient. Establish a preliminary and final diagnosis based on examination data (clinical and laboratory).
2. To propose an orthopedic treatment plan.
3. To propose a plan for preparing the patient's oral cavity for prosthetics
4. Obtain an anatomical impression from the lower and upper jaws for the manufacture of partial removable prostheses
5. Determine and fix the central ratio of the jaws in 2.3 groups of defects with the help of occlusal rollers
6. Design planning of a partial removable prosthesis.
7. Carry out parallelograms of the diagnostic model and plan the clasp fixation of the brace prosthesis
8. Checking the construction of a partial removable prosthesis
9. Correction of a partial removable prosthesis
10. Rebasing of a partial removable prosthesis

2. Information volume of the academic discipline

It is assigned to the study of an academic discipline
165 academic hours , or 5.5 ECTS credits .

The program of the academic discipline is structured in modules:

Module 1. Fixed prosthetics

Content modules:

1. Examination of patients in the orthopedic dentistry clinic
2. Functional anatomy and clinical biomechanics of the maxillofacial apparatus
3. Analgesia in the orthopedic dentistry clinic. Emergency conditions
4. Clinical and laboratory stages of manufacturing artificial crowns
5. Clinical and laboratory stages of manufacturing bridge prostheses

Module 2. Partial removable prosthetics

Content modules:

1. Examination of patients with partial loss of teeth. General characteristics and design planning of partial removable prostheses
2. Clinical and laboratory stages of manufacturing partial removable lamellar prostheses
3. Clinical and laboratory stages of the production of braced prostheses and prostheses with a cast metal base

4. Adaptation to removable prostheses and the impact of prostheses on the tissues of the oral cavity

3. The structure of the academic discipline

	The name of the academic discipline	Credit ECTS	Number of hours					
			In total	Aud	Lectures	Sem.	Prac.	S.S.
	"Orthopedic stomatology" 3rd year of study	5.5	165	120	20	-	100	45
	Module 1. Fixed prosthetics ***19 topics + PMK = 20 classes (class duration 2.5 academic hours)*** **Content module 1.** Examination of patients in the clinic of	**2.5**	**75**	**50**	**10**	**-**	**40**	**25**

	orthopedic dentistry **Content module 2.** Functional anatomy and biomechanics of the maxillofacial apparatus **Content module 3.** Analgesia in the clinic of orthopedic dentistry. Emergency conditions **Content module 4.** Clinical and laboratory stages of manufacturing artificial crowns **Content module 5.** Clinical and laboratory stages of manufacturing bridge prostheses **PMK 1 "Fixed prosthetics"**							
	Module 2: "Partial removable prosthetics" ***19 topics + PMK = 20 classes (class duration 2.5 hours)*** **Content module 1.** Examination of patients with partial loss of teeth. Design planning of partial removable prostheses **Content module 2.** Clinical and laboratory stages of manufacturing partial removable lamellar prostheses **Content module 3.** Clinical and laboratory stages of the production of braced prostheses and prostheses with a cast metal base **Content module 4.** Adaptation to removable	**3.0**	**90**	**70**	**10**	**-**	**60**	**20**

	prostheses and the impact of prostheses on the tissues of the oral cavity **PMK 2: "Partial removable prosthetics"**							

4. Lecture topics
Module 1 "Fixed prosthetics"

No	Topic name	Number hours
1	Examination of patients in the orthopedic dentistry clinic. Basic and additional methods of examination. Diagnosis	2
2	Analgesia in the clinic of orthopedic dentistry. Emergency conditions at a dental appointment	2
3	Functional anatomy and biomechanics of the maxillofacial apparatus. Clinical analysis of occlusion.	2
4	Indications and clinical and technological stages of manufacturing artificial crowns	2
5	Indications and clinical and technological stages of manufacturing bridge prostheses	2
	Together	10

Module 2 "Partial removable prosthetics"

No. z/p	Topic name	Number hours
1	Structural and functional changes of the maxillofacial apparatus with partial loss of teeth. Examination of patients. Design features and comparative characteristics of various types of CZP, indications. Pre-prosthetic preparation	2
2	Factors ensuring the fixation of CZP. Planning of the construction of the CHZP depending on the clinical conditions; selection of supporting teeth and fixing elements, border of bases. Determination of the ratio of the jaws in 1-3 groups of defects of the dentition. Placement of teeth in the CZP. Verification of the	2

	design of the special equipment	
3	Bügel prostheses - design planning depending on clinical conditions. Types of fixing elements. Parallelometry	2
4	Technological stages of production of special equipment. Duplication of models. Refractory masses. Lithuania frames of fixed prostheses and metal bases. Compression and foundry pressing, polymerization of plastics.	2
5	Superimposition and correction of special conditions. Adaptation to removable prostheses. Replacement and repair of removable prostheses. The influence of the bases of prostheses on the tissues of the oral cavity. Prosthetic stomatitis.	2
	Together	10

5. Topics of practical classes

No.	The subject of the lesson Unknown prosthetics	Hours
1	Examination of the patient in the orthopedic dentistry clinic. Clinical examination methods. Additional (special) examination methods. Preliminary and final diagnosis.	3
2	Components of the masticatory system; their characteristics. Types of occlusions, their characteristics and signs. Analysis of diagnostic models in the articulator. The basics of working with an articulator.	3
3	Analgesia in the clinic of orthopedic dentistry. Indications for the use of various types of analgesia. Errors and complications of local anesthesia.	3
4	Indications for replacement of hard tissue defects with artificial crowns.	3
5	Clinical and laboratory stages of manufacturing a stamped metal crown.	3
6	Indications, clinical and laboratory stages of manufacturing a combined crown. Indications, clinical and laboratory stages of making a plastic crown.	3
7	Clinical and laboratory stages of production of a solid crown.	3
8	Errors and complications in prosthetics with artificial crowns.	3

9	Clinical issues of using bridge prostheses.	3
10	Indications, clinical and laboratory stages of manufacturing stamped and soldered bridge prostheses.	3
11	Indications and clinical stages of manufacturing one-piece bridge prostheses.	3
12	Laboratory stages of manufacturing one-piece bridge prostheses. Fixation of fixed dentures. Complications and errors in prosthetics with bridge prostheses	3
13	***Diff. test***	4
	IN TOTAL	40

No	**Topic name "Partial removable prosthetics"**	**Hours**
1	Examination of patients with partial loss of teeth. Changes in the maxillofacial apparatus with partial loss of teeth	3
2	Designs of partial removable prostheses - indications for prosthetics. Planning of fixation of partial removable prostheses.	3
3	Support teeth, clasp lines. Methods of fixing partial removable prostheses	3
4	Justification of the construction of the limits of the bases of partial removable prostheses	3
5	Determination and fixation of the ratio of the jaws in 1, 2, 3 groups of dental defects	3
6	Placement of teeth in partial removable prostheses	3
7	Checking the construction of partial removable prostheses	3
8	Manufacturing technology of partial removable prostheses with a plastic base. Compression and casting pressing of plastics	3
9	Fitting and correction of partial removable prostheses	3
10	Bügel prostheses - design planning depending on clinical	3

	conditions. Types of fixing elements	
11	Parallelometry of diagnostic models	3
12	Fixation of brace prostheses. Indications for the use of various types of mechanical fasteners. Supporting and holding clamps, Neya system	3
13	Technological stages of manufacturing removable prostheses with a solid metal frame. Duplication of working models	3
14	Compensation of shrinkage of alloys during casting.	3
15	Molding masses. Modeling of wax reproductions of frameworks of braced prostheses and prostheses with a metal base	3
16	The technology of casting frameworks of braced prostheses and prostheses with a metal base	3
17	Inspection of the design of the brace prosthesis. Overlay of a bygel prosthesis	3
18	Adaptation to removable prostheses, terms of use. Repair and replacement of prostheses. Errors and complications in prosthetics with partial removable prostheses.	3
19	The influence of the bases of removable prostheses on the mucous membrane of the oral cavity. Prosthetic stomatitis	3
20	Differentiated scoring	3
	IN TOTAL	60

6. Topics of seminar classes

The work program in orthopedic dentistry in the 3rd year does not include seminar classes

7. Topics of laboratory classes

The work program in orthopedic dentistry in the 3rd year does not include laboratory classes

8. Independent work

Thematic plan of independent work

Module 1 "Fixed prosthetics"
Thematic plan of independent work
Module 1 "Fixed prosthetics" 5th semester

No	Topics names	Number hours
1	**Preparation for practical classes** - theoretical preparation, work on test tasks, albums and presentations	19
2	**Studying topics that are not part of the classroom lesson plan:**	
	Diagnostic wax modeling when planning orthopedic treatment using fixed structures	1
3	**Preparation for the exam**	5
	In total	**25**

Module 2 "Partial removable dentures" 6th semester

No	Topic name	Number hours
1	**Preparation for practical classes** - theoretical preparation, work on test tasks, albums and presentations	15
2	**Studying topics that are not part of the classroom lesson plan:**	
	Clinical and laboratory stages of manufacturing partial removable prostheses with lock fixation	1
	Modern materials for the manufacture of denture bases	1
3	**Preparation for the test**	3
	In total	**20**

9. Individual tasks
INDRS

The types of individual research work of students (INDRS) are the preparation of reports and presentations in accordance with the thematic plan of the module, as well as participation in the work of the scientific student circle in orthopedic dentistry

10. Tasks for independent work

Module 1 "Fixed prosthetics"

1. Diagnostic wax modeling when planning orthopedic treatment using fixed structures.
2. Reinforcement of endodontically treated teeth using standard pins

Module 2 "Partial removable dentures"

1. Obtaining functional impressions with partial removable prosthetics. Manufacturing technologies of rigid individual spoons.
2. Clinical and laboratory stages of manufacturing partial removable prostheses with lock fixation
3. Modern materials for the manufacture of denture bases

11. Teaching methods

Types of educational activities of students according to the curriculum are: a) lectures, b) practical classes, c) independent work of students (SRS).

The topics of the lecture course reveal the problematic issues of the relevant sections of orthopedic dentistry.

Practical classes according to the method of their organization are clinical, and include:

1) examination of patients in the clinical office using dental equipment and instruments;
2) analysis of diagnostic models of patients with various types of pathology of the dental and jaw apparatus, selection of methods of restoration of defects of teeth and dentition;
3) practice of practical skills by students during the clinical reception of thematic patients,
4) solving situational problems (evaluation of diagnostic models, occluderograms, radiological examination data, etc.), which have a clinical direction, as well as solving test situational problems (format A).

Students in practical classes, during the clinical reception of patients, fill out the medical record of the examined patient, and it is also recommended to fill out other reporting documentation (doctor's work diary, dental work orders).

The educational process is organized according to the credit-module system in accordance with the requirements of the Bologna process .

The program of the discipline "Orthopedic Dentistry" is structured into 6 modules, which include blocks of content modules.

The grade for the module is determined taking into account the grades of the current control and the assessment of the final module control, which is issued during the assessment of theoretical knowledge and practical skills in accordance with the lists determined by the discipline program.

The grade in the discipline is defined as the arithmetic average of the grades of the discipline modules.

Credit includes all types of student work provided for in the approved individual plan: classroom, self-study, preparation for state certification, passing integrated licensing exams "Step 1" and "Step 2", practical-oriented state exam, industrial practice, etc.

Current educational activities of students are monitored in practical classes in accordance with specific goals.

It is recommended to use the following means of diagnosing the level of students' training: computer tests, solving situational problems, conducting an examination of thematic patients, establishing a diagnosis, planning the scope of the examination, interpreting their results; control of practical skills, others.

The final control of the learning of the modules is carried out after the completion of the study of the module. The evaluation of the student's success in the discipline is a rating and is presented on a multi-point scale as the average arithmetic evaluation of the mastery of the relevant modules and is defined according to the ECTC system and the traditional scale adopted in Ukraine.

Deadlines for drawing up and re-drawing the final modular control.

- assembly - at the main training session on the discipline;
- reassembly - within 20 days after the completion of the module;
- reassembly - within 10 days after the 1st reassembly.

12. Control methods

The general goal of control is subordinated to the main task of ensuring a high theoretical and scientific level of educational work and, therefore, quality training of personnel. The specific purpose of control is to determine the quality of assimilation of educational material, the degree of compliance of the formed competencies with the goals and tasks of educational training disciplines .

Principles of control : comprehensive nature, systematicity, purposefulness, objectivity, effectiveness, unity of requirements, constant improvement of all its forms and methods.

Effective functioning of the pedagogical control system requires compliance with certain conditions:

- teachers and students, evaluating the state of educational work, act according to uniform and agreed criteria, the rationale of which is known to everyone from afar ;

- o prices obtained as a result of control are considered non- violating, not subject to doubt both by those who control and by those who are controlled, since they are based on objective criteria known to both parties ;
- control and its results require publicity so that anyone can carefully study them, draw reasonable conclusions on the basis of this, which encourage active positive work aimed at the necessary adjustment of the educational process .

for the control of knowledge , abilities and skills :

- **objectivity** — creation of conditions under which the knowledge , abilities and skills of students would be maximally accurately manifested , putting forward uniform requirements, fair treatment of each student, the inadmissibility of the presence of elements of bias, the desire to find negative facts or impose purely personal views of the supervisor on certain theoretical problems, methodological techniques, etc.; at the same time, it should be remembered that the objectivity of control is incompatible with a liberal attitude to shortcomings and mistakes, superficiality and narrowness in the analysis and assessment of the work being checked;
- **reasonableness of assessments** — their argumentation ;
- **systematicity** — an important psychological factor that contributes to the formation of such qualities as organization and discipline , forms perseverance and focus on goal achievement;
- **an individual and differentiated approach to the assessment of knowledge , abilities and skills** involves the use of such didactic conditions under which psychological tension is reduced, the peculiarities of the student 's nervous system , his character, potential opportunities, abilities, etc. are taken into account, thanks to which the teacher becomes capable as fully as possible , more correctly and objectively in identifying and evaluating the knowledge of each student ;
- **comprehensiveness and optimality** presupposes: firstly , adequacy control of learning goals, that is, the content side of control should control what students were taught and take into account the amount of material that needs to be learned; second, the validity of the control, it should cover the entire scope of knowledge, skills and abilities that is controlled ; Third, reliability — stability of the results, obtained by repeated control after a certain time, as well as the closeness of the results during control by different teachers;
- **the professional orientation** of control, which is determined by the target training of a specialist and thereby contributes to increasing the motivation of the cognitive activity of students — future specialists.

Forms of control:

- according to the coverage of students: frontal, individual, paired, group;
- by method of implementation : oral, written;
- according to the method of organization : control by the teacher, mutual control, self-control;

- by the use of teaching aids : control using printed aids, volume aids (models, dummies, simulators, devices), technical aids, computer systems, including those with support for multimedia files;
- by level of standardization : standardized, non-standardized.

Each of the forms of control has its own characteristics and is conditioned by its goal , content , and method and the nature of learning.

An **oral survey** makes it possible to control not only knowledge , but also verbal abilities, helps to correct speech errors . Reproducing the material contributes to its better memorization , active use of scientific concepts, which is impossible without sufficient application of them in speech .

Pysmov e the survey helps to find out the level of assimilation of the material, but the possibility of writing off should be excluded and students should be carefully monitored during this survey. Written assignments require a considerable amount of the teacher's time to review.

An integral element of the system of the educational process in higher medical educational institutions of III and IV levels of school accreditation is **testing** as a standardized evaluation method that meets the new goals and objectives of higher medical education and promotes individualization and control of the educational process and is designed to ensure the quality of training of the future doctor.

All forms of control, with their skillful implementation, are accompanied by instructions, advice and recommendations of the teacher to the student. Control in all cases enables the auditee to learn lessons from the inspection of his work and draw correct conclusions for the future.

Assessment and marking .

The practical application of any form of pedagogical control ends with evaluations and marks .

Assessment is a method and result of establishing the fact of conformity or non-conformity of acquired knowledge and formed abilities and skills learning goals and objectives. The assessment also predicts identification of reasons that hindered learning and means of organizing educational activities to eliminate gaps in knowledge .

Mark - numerical and analogue of the assessment and has several rank values.

The basis for assessing the quality of students' knowledge , abilities, and skills is the requirements of programs in academic disciplines , but regardless of the specifics of the subject, the general requirements are as follows :

- understanding and degree of assimilation of the question, completeness, which is measured by the amount of software knowledge about the object being studied;
- depth, which characterizes the set of connections between knowledge - realized by students;
- methodological organization of knowledge;

- familiarization with the main literature of the academic discipline , and at the same time with modern periodical domestic and foreign literature in the specialty;
- the ability to apply theory in practice, to solve situational problems , etc.; operability , that is, the number of situations in which the student can apply - his knowledge in practice ;
- familiarization with the history and current state of science and perspectives of its development;
- logic, structure, response style and the student's ability to defend the - proposed scientific and theoretical propositions, awareness, generalization, concreteness;
- flexibility, that is, the student's ability to independently find situations in which knowledge is applied ;
- strength of knowledge.

In the process of pedagogical control, it should be taken into account that :

- it is impractical to control what should be mastered by the student at the level recognition , primary representation or recognition ;
- control should not be used if the teacher is sure that all students will cope with the task 100%, at the same time , sometimes it is appropriate to give such tasks that most students can cope with, because in this way students' faith in their own abilities is stimulated;
- well-organized step-by-step control reduces the need for final control or makes the latter unnecessary at all;
- it is necessary to vary the means of control;
- creation of a calm and friendly atmosphere during the control process contributes to the better work of students and has a positive effect on its results.

the student's **current educational activity is carried out** when mastering each topic of the module by assigning a rating on a 4-point traditional scale, at the end of the module the average rating is calculated, which is converted into points.

The maximum number of points for the student's current educational activity is **120 points.**

Assessment of students' independent work, which is provided for in the topic together with classroom work, is carried out during the ongoing control of the topic in the corresponding classroom lesson. The evaluation of topics that are submitted only for independent work and are not included in the topics of classroom training sessions is controlled during the defense of the essay and during the final module control.

13. Form of final control of study success

The final module control is carried out upon completion of the study of all topics of the module (content modules) in the last session of the module. Students who have completed all types of work provided for in the curriculum and who have studied the module and scored at least the minimum number of points are admitted to the final examination.

The final module control is standardized and includes control of theoretical and practical training. The theoretical part of the PMK consists of 25 test tasks (2 points each - a total of 50 points) and 1 theoretical question and 2 practical tasks, which are evaluated for 10 points. Practical training is evaluated based on the student's ability to perform a patient examination, differential diagnosis of diseases, establish a diagnosis, reasonably choose a treatment method, perform basic dental manipulations on phantoms (80 points in total). **The final module control** is credited to the student if he scored at least **50** points out of a possible 80. The **total** number of points for each module is 200.

Final semester certification

Compilation of semester final certifications (SPA, exams).

Students who have fulfilled all the requirements of the curriculum are allowed to take the final certification, and in the individual curriculum (report book) there is a note about admission to the SPA.

The last final module control of the academic discipline subject to SPA is conducted in the form of an exam. For students with a normative (shortened) term of study, the semester final certification is not conducted in the 2nd year of study.

The exam is taken by a commission approved by the order of the rector, consisting of: an examiner, members of the commission - representatives of the dean's office and specialized departments , in the presence of the teacher who last taught in this student group.

The grade for the exam corresponds to the scale:

Grade "5" - 80-71 points;

Grade "4" - 70-61 points;

Grade "3" - 60-50 points;

Grade "2" - less than 50 points.

The results of the student's completion of the SPA (exam) are recorded in the "Students' Performance Information in the Discipline" and sealed with the signatures of the examiner and members of the commission, after which the results of the SPA are announced to the students.

14. Scheme of accrual and distribution of points received by students

Conversion of a traditional 4-point scale into a multi-point (maximum 120 points) – conversion of the total current success rate for the module – is carried out only after the current class, which precedes the final module control. The conversion is carried out according to the following algorithm:

– the student's average grade on a traditional 4-point scale obtained during current classes belonging to this module is calculated (to the nearest hundredth of a point);

– in order to obtain a converted multi-point total assessment of current success for the module, the average assessment obtained on a traditional 4-point scale must be multiplied by a factor of 24. The exception is the case when the

average assessment on a traditional 4-point scale is 2 points. In this case, the student receives 0 points on a multi-point scale;

– the current grade point average is calculated based on the total number of classes in the module, not on the number actually attended by the student.

Correspondence of the average score of the current academic performance according to the traditional one 4-point scale to the total evaluation of the current success rate for the module

The minimum converted sum of current success points for all modules of the discipline **is 72 points.**

The average score of the current academic performance on a traditional 4-point scale	Points for current performance after GPA conversion
2.00	0
2.05	49
2.10	50
2.15	52
2.20	53
2.25	54
2.30	55
2.35	56
2.40	58
2.45	59
2.50	60
2.55	61
2.60	62
2.65	64
2.70	65
2.75	66
2.80	67
2.85	69
2.90	70
2.95	71
3.00	72

3.05	73
3.10	74
3.15	75
3.20	77
3.25	78
3.30	79
3.35	80
3.40	82
3.45	83
3.50	84
3.55	85
3.60	86
3.65	87
3.70	89
3.75	90
3.80	92
3.85	93
3.90	94
3.95	95
4.00	96
4.05	97
4.10	98
4.15	99
4.20	101
4.25	102
4.30	103
4.35	104
4.40	106
4.45	107
4.50	108
4.55	109
4.60	110
4.65	111
4.70	113
4.75	114
4.80	115
4.85	116
4.90	118
4.95	119

5.00	120

The result of the final module control is evaluated in points (the traditional 4-point evaluation is not assigned). The maximum number of points of the final modular control is 80 points. The minimum number of points of the final module control, at which the control is considered passed, is 50 points.

The maximum number of points per module is 200 points. The PMK assessment criteria are determined by the department, approved by the cyclic methodical commission on the implementation of the credit-module system of education and brought to the attention of students at the beginning of the study of the discipline (the first lecture and practical session).

Discipline assessment

The evaluation of the discipline "Therapeutic Dentistry" is given only to students who have passed all the modules of the discipline. According to the decision of the Academic Council, incentive points can be added to the number of points in the discipline for students who have scientific publications or won prizes for participation in Olympiads in the discipline among universities of Ukraine, student conferences, etc. The objectivity of evaluating the educational activity of students must be checked by statistical methods (by the correlation coefficient between the current success rate and the results of the final module control).

The grade for the discipline is issued by the department on a traditional (national) 4-point scale based on the average number of points for all modules provided by the discipline program.

The scale for converting the average number of points for all modules provided by the discipline program into a traditional assessment on the 4-point scale of disciplines and for all departments is the same (according to the table).

Transferring the average number of points for all modules provided by the discipline program into a traditional grade for 4-point scale

The average number of points for all modules provided by the discipline program	Traditional assessment for 4-point scale
122 - 149.99	"3"
150 - 179.99	"4"
180 - 200	"5"

The grade from the discipline is not converted from the ECTS grade.

The grade for the discipline is issued to the student no later than on the next working day after the last final module control.

If the student does not retake at least one final module test before the beginning of the new semester, he receives a traditional grade of "2" and an ECTS grade of "F" for the discipline, which is the basis for expelling the student.

List of control questions for the final modular control in orthopedic stomatology

Module 1 "Fixed prosthetics"

1. Examination of patients in orthopedic dentistry - stages, basic and additional examination methods, medical documentation
2. Stage of subjective examination. Pathological conditions and general somatic diseases, which are risk factors at the dental appointment
3. Examination of the temporomandibular joint (main and additional methods)
4. Examination of masticatory muscles (main and additional methods).
5. Examination of the mucous membrane of the oral cavity. Mobility and flexibility of the mucous membrane, classification according to Suppli.
6. Examination of teeth and dental rows (main and additional methods). Classification of dentition defects according to Kennedy and Betelman
7. Examination of periodontal tissues (main and additional methods)
8. X-ray examination methods in orthopedic dentistry
9. Methods of recording movements of the lower jaw
10. Electromyography
11. Evaluation of occlusal ratios of dental rows. Occlusionography. Electronic analysis of occlusion T-Scan
12. Static and dynamic methods of evaluation of chewing efficiency
13. Preliminary and final diagnosis. Peculiarities of making a diagnosis in the clinic of orthopedic dentistry. Orthopedic treatment planning and pre-prosthetic preparation
14. Functional anatomy of masticatory muscles. Synergism and coordinated antagonism, the state of relative physiological rest of the masticatory muscles
15. Innervation and reflex regulation of the maxillofacial apparatus
16. Functional anatomy of the temporomandibular joint
17. Anatomy of periodontal tissues, structure of the tooth-gum joint. Reserve and residual durability of periodontal tissues. Physiological and pathological mobility of teeth
18. Anatomy of dentition, physiological and pathological bites. Factors that ensure the stability of the position of the teeth. Ways and mechanisms of redistribution of masticatory pressure, buttresses of the skull
19. Anatomy of the occlusal surface of dental rows and individual teeth, sagittal and transverse occlusal curves. Anatomical and functional occlusal surface, occlusal compass.
20. Biomechanics of lower jaw movements. Phases of chewing movements according to Guizi. Occlusion and articulation, types of occlusion, factors of occlusion

21. Movement of the lower jaw in the vertical direction. Terminal pivot axis, Posset diagram
22. Parameters characterizing the movement of the lower jaw in the sagittal direction.
23. Sagittal articular and incisal paths, sagittal articular and incisal angles
24. Parameters characterizing the movement of the lower jaw in the transverse direction. 25. Transverse articular and incisal paths, Bennett's angle and movement, Gothic angle
26. Central occlusion, occlusal contacts are normal. Classification of antagonizing surfaces according to Jenkelson, concepts of stable and unstable occlusal contacts
27. Front occlusion, contacts are normal. Frontal driving. Bonville three-point contact
28. Lateral occlusion, contact options (occlusal concepts)
29. Supracontacts - etiology, classification
30. Devices that reproduce the movements of the lower jaw - classifications, areas of application
31. Structure of articulators. Medium anatomical articulators - design features, indications for use
32. Adjustable articulators - design features, indications for use, methods of individual adjustment
33. Methods of transferring models to the articulator
34. The technique of registering the position of the upper jaw and transferring the models to the articulator using the facial arch
35. Pain, mechanism of occurrence, ways of conducting. Theories of the occurrence of toothache. Innervation of the maxillofacial area
36. Types of pain relief in outpatient dental practice. Indications for local anesthesia in orthopedic dentistry
37. Conductive analgesia on the upper jaw, methods
38. Conductive analgesia on the lower jaw, techniques
39. Methods of infiltration analgesia in the oral cavity, indications
40. Analgesia during preparation of frontal teeth of the upper jaw.
41. Analgesia during preparation of premolars of the upper jaw.
42. Analgesia during preparation of molars of the upper jaw.
43. Analgesia during preparation of the front teeth of the lower jaw.
44. Analgesia during preparation of premolars of the lower jaw.
45. Analgesia during preparation of molars of the lower jaw.
46. Modern local anesthetics - mechanism of action, classification, indications for use
47. Common complications of injection anesthesia - causes, ways of prevention
48. Local complications of injection anesthesia - causes, ways of prevention
49. Emergencies at a dental appointment - allergic reactions of the immediate type. Clinical picture, first aid
50. Emergency conditions at a dental appointment - hypertensive crisis, angina attack, myocardial infarction. Clinical picture, first aid

51. Emergency conditions at a dental appointment - dizziness, collapse. Clinical picture, first aid
52. Emergency conditions at a dental appointment - an attack of bronchial asthma. Clinical picture, first aid
53. Etiology of defects of the crown part of teeth. Defect classifications, Milikevich index. Types of orthopedic structures for replacing defects of the crown part of teeth, indications
54. Artificial crowns - indications, classifications, comparative characteristics. Materials and technologies for manufacturing artificial crowns
55. Preparation of the oral cavity for prosthetics. Requirements for teeth that are used as a support for fixed orthopedic structures
56. Indications for depulping of supporting teeth. Indications for reinforcing abutment teeth with pin structures
57. Toolkit for preparing teeth for fixed orthopedic structures
58. Rules for preparation of teeth for fixed orthopedic structures, safety measures, methods of controlling the depth of preparation of hard tissues
59. Protection of welcome teeth during and after preparation. Provisional structures, dentine sealants
60. Complications during and after tooth preparation - causes, consequences, ways of prevention
61. Methods of preparing teeth for artificial crowns
62. Marginal adaptation of artificial crowns, variants of periorbital preparation, types of ledges
63. Gum retraction, types, methods, indications
64. Stamped metal crowns - indications and contraindications, clinical stages of production
65. Solid metal crowns - indications and contraindications, clinical stages of production
66. One-piece combined crowns - indications and contraindications, clinical stages of production
67. Stamped metal crowns - laboratory stages of production
68. One-piece metal crowns – laboratory manufacturing stages
69. Solid-cast combined crowns - laboratory stages of production
70. Provisional crowns - indications, purpose of use, types. Materials for making provisional crowns
71. Methods of direct production of provisional structures
72. Laboratory method of making temporary crowns
73. Acrylic plastics - composition, properties, phases and modes of polymerization of plastics
74. Metal alloys for the manufacture of fixed orthopedic structures - classification, properties, application technologies
75. Technology of casting frames of non-removable orthopedic structures. Shrinkage of alloys and methods of its compensation
76. Sprinkler systems - types, construction rules. Methods of melting and casting metal alloys

77. Refractory masses - types, composition, properties
78. Technology of soldering parts of stamped-soldered structures. Solders - types, composition, properties, requirements. Fluxes. Solderless method of connecting parts of bridge-like prostheses
79. Gypsum - types, composition, properties
80. Alginate impression materials - composition, properties, indications, application technology
81. Silicone impression materials - composition, properties, indications, methods of obtaining impressions
82. Bridge-like prostheses - indications, classifications, materials and manufacturing methods. Peculiarities of preparation of supporting teeth. Comparative characteristics of solid-cast and stamped-soldered structures
83. Biomechanics of bridge prostheses, structural features, types of supporting elements. The relationship of the intermediate part to the alveolar process
84. Indications, clinical stages of prosthetics with cast bridge-like prostheses
85. Indications, clinical stages of prosthetics with stamped and soldered bridge prostheses
86. Laboratory stages of prosthetics with single-cast bridge prostheses
87. Laboratory stages of prosthetics with stamped and soldered bridge prostheses
88. Factors that ensure fixation of fixed prostheses.
89. Indications for temporary fixation of non-removable structures. Materials for temporary fixation of orthopedic structures. Provisional cements
90. Zinc - phosphate cements - composition, physical and chemical properties, indications and method of application
91. Glass ionomer cements - composition, physical and chemical properties, indications and methods of application
92. Composite cements - composition, physical and chemical properties, indications and methods of application
93. Errors and complications in obtaining prints. Causes, consequences, ways of prevention
94. Errors and complications during tooth preparation. Causes, consequences, ways of prevention
95. Errors at the laboratory stages of manufacturing stamped crowns
96. Errors at the laboratory stages of manufacturing stamped-soldered bridge-like prostheses
97. Errors at the laboratory stages of production of cast crowns
98. Errors at the laboratory stages of production of solid bridge prostheses
99. Errors at the laboratory stage of manufacturing plastic crowns
100. Errors during examination of patients and planning of orthopedic treatment
101. Errors during design verification and cementing of non-removable orthopedic structures

Module 2 "Partial removable prosthetics"

1. Basic and additional methods of examination of patients with partial loss of

teeth
2. Structural and functional changes of the maxillofacial apparatus with partial loss of teeth
3. Anatomical formations of the oral cavity that are important for removable prosthetics. Flexibility and mobility of the mucous membrane, their consideration in removable prosthetics. Assessment of the condition of alveolar processes in edentulous areas, classification according to Elbrecht
4. Preparation of the oral cavity for partial dentures
5. Structures of the CZP, their constituent parts. Peculiarities of the transformation of masticatory pressure by various types of CHZP
6. Partial removable lamellar prostheses - indications, clinical stages of manufacture
7. Partial removable lamellar prostheses with a metal base - indications, clinical stages of manufacture
8. Bügel prostheses - indications, construction planning depending on clinical conditions . Selection of abutment teeth, requirements, preparation
9. Checking the design of partial removable prostheses
10. Planning the construction of prostheses while preserving individual teeth on the jaws
11. Scheduling of the fixing of the ČZP. Staple lines. Factors affecting the choice of fixing elements in removable prostheses
12. Obtaining working impressions for the production of special equipment - materials and methods. Indications for obtaining impressions using individual spoons
14. The concept of fixation, stabilization, balance of removable prostheses and the factors that ensure them
15. Staplers - classifications, designs, manufacturing methods. Factors determining the choice of the type of stapler
16. Lock fasteners (attachmen) - classifications, designs, indications
17. Beam fasteners - types, designs, indications
18. Telescopic fasteners - types, designs, indications
19. Limits of the bases of partial removable lamellar prostheses on the upper and lower jaws
20. Variants of the location of the arches of the brace prostheses on the upper and lower jaws. Arc parameters
21. Groups of dentition defects according to Betelman, clinical characteristics
22. The method of determining and fixing the central ratio of the jaws in the second group of defects according to Betelman
23. The method of determining and fixing the central ratio of the jaws in the third group of defects according to Betelman. Methods of determining the occlusal height. Methods of determining the central ratio of the jaws
24. Method of fixing central occlusion with occlusion blocks and gypsum blocks. Production technology of occlusive rollers, requirements for rollers
25. Methodology of hot and cold methods of fixing the central ratio with the help of occlusive rollers

26. Errors in determining and fixing the ratio of the jaws
27. Artificial teeth for removable prostheses - materials, types. Comparative characteristics of porcelain, composite, acrylic teeth. Rules for choosing artificial teeth
28. Methodology of placing artificial teeth in the emergency department; options for setting teeth in the frontal area. Anatomical guidelines for setting teeth. Occlusal concepts for partial removable prosthetics
29. Technology of compression pressing of plastics. Methods of plastering reproductions of prostheses in a cuvette
30. Technology of foundry pressing of plastics. Equipment, materials. Directional polymerization mode.
31. Plastics for the manufacture of denture bases. Classifications, composition, properties. Types and modes of polymerization
32. Errors when working with plastic, types of porosity
33. Techniques for applying and correcting the prosthesis, recommendations for the patient on the care of the prosthesis. 34. Phases of adaptation to removable prostheses according to Kurlyandskyi
35. Parallelometry - purpose, tasks, methods of implementation
36. Planning of fixing elements in hook prostheses depending on clinical conditions. Calibration of models
37. Preparation of models for duplication. Duplicating masses - types, composition, application technology. Production of fireproof models
38. Modeling of the wax reproduction of the frame of the brace prosthesis. Types of downspout system, construction rules
39. Ney's clamp system, indications for use
40. Classification of molding compounds, composition, properties, indications for use
41. Metal alloys for the manufacture of frameworks of braced prostheses and prostheses with a metal base. Cobalt-chromium alloy - composition, technological and physico-chemical properties, temperature regime
42. Shrinkage of an alloy during casting, types. Methods of compensating the shrinkage of alloys during casting of frames of removable and non-removable structures
43. Technologies of Lithuania in dentistry. Methods of melting and casting of metals. Spillway systems - types, construction rules
44. Recommended terms of use of various types of special permits. Indications for replacement of prostheses. Rebasing of removable prostheses - indications, methods, materials
45. Repair of prostheses (replacing a clasp, adding a tooth, repairing the base) - technology. Causes of base fracture
46. Factors affecting the bases of prostheses and prosthetic materials on the tissues of the prosthetic bed. Classifications of prosthetic stomatitis
47. Traumatic prosthetic stomatitis. Etiology, clinical manifestations, differential diagnosis and treatment

48. Toxic prosthetic stomatitis. Etiology, clinical manifestations, differential diagnosis and treatment
49. Allergic prosthetic stomatitis. Etiology, clinical manifestations, differential diagnosis and treatment
50. Additional laboratory methods of examination of patients with prosthetic stomatitis
51. Errors at the stage of fixing the ratio of the jaws and determining the occlusal height
52. Errors when receiving prints
53. Errors at the stage of manufacturing the plastic base
54. Errors at the stage of examination of patients and planning of the design of the emergency room
55. Mistakes at the stage of molding the frameworks of prostheses
56. Errors in the application and correction of prostheses

List of practical skills to be checked during the final modular control in orthopedic dentistry

Module 1 "Fixed prosthetics"

1. Conduct an examination of the patient. Establish a preliminary and final diagnosis based on examination data (clinical and laboratory).
2. Propose a plan of orthopedic treatment.
3. To propose a plan for preparing the patient's oral cavity for prosthetics.
4. Occludogram
5. Obtain an impression for the production of solid-cast fixed structures
6. Obtaining impressions for the manufacture of stamped and stamped-soldered prostheses
7. Fix the central occlusion with 1 group of defects using occlusion blocks
8. Determining the position of the upper jaw using the facial arch
9. Transferring the models to the articulator using the facial arch
10. Analysis of occlusion on diagnostic models in the articulator.
11. Analgesia during tooth preparation
12. Perform gum retraction
13. Preparation of teeth for a stamped metal crown.
14. Preparation of teeth for solid metal and combined crowns
15. Planning the construction of a bridge-like prosthesis
16. Checking the design of artificial crowns
17. Checking the structure of a bridge-like prosthesis.
18. Fixation of crowns and bridge-like prostheses
19. Removal of crowns.

Module 2 "Partial removable prosthetics"

1. Conduct an examination of the patient. Establish a preliminary and final diagnosis based on examination data (clinical and laboratory).
2. Propose a plan of orthopedic treatment.
3. To propose a plan for preparing the patient's oral cavity for prosthetics
4. Obtain an anatomical impression from the lower and upper jaws for the manufacture of partial removable prostheses
5. Determine and fix the central ratio of the jaws with 2.3 groups of defects using occlusal rollers
6. Design planning of a partial removable prosthesis.
7. Carry out parallelograms of the diagnostic model and plan the clasp fixation of the brace prosthesis
8. Checking the design of a partial removable prosthesis
9. Correction of a partial removable prosthesis
10. Rebasing of a partial removable prosthesis

Test tasks for current and final control (example)

Module 1 "Fixed prosthetics"

Task 1

Patient P, 36 years old, who applied to the orthopedic dentistry clinic, was assigned an additional examination in order to clarify the diagnosis. As a result of the study, a graphic record of the trajectories of the articular pathways and the numerical value of the angles of inclination of the articular pathways were obtained. What survey method was used?

A. mastication
B. functionography
C. orthopantomography
D. axiography*
E. electromyography

Task 2

Patient B, 37 years old, complained about the unaesthetic appearance of the upper front teeth. Objectively: 11.21 teeth are discolored, with fillings of 4 cl according to Black (occupy approx. 65% of the surface, disturbed marginal fit). On the aiming X-ray - periapically at the roots 11,21 - areas of rarefaction of bone tissue with indistinct contours (chronic granulating periodontitis), there is no filling mass in the canals. What should be the primary actions of the dentist?

A. replace fillings with photopolymer restoration
B. restore teeth with plastic crowns
C. restore teeth with stamped combined crowns
D. to restore teeth with integral combined crowns
E. perform endodontic treatment 11.21*

Task 3

The patient, who complained about the destruction of the 17th tooth, is scheduled to have an all-cast metal crown made. How should the cervical area of tooth 17 be prepared?
A. without a ledge
B. with a circular ledge under 90
C. with a circular ledge under 135
D. with circular ledge symbol*
E. with a ledge vestibularly and proximally, a symbol of a ledge on the oral side

Task 4

Patient M, 56 years old, complained about the loss of 22.23 teeth. Objectively: the bite is orthognathic, 21, 24 teeth are intact and stable. specify the most rational design for replacing the defect?
A. adhesive bridge prosthesis made of composite
B. solid cast combined cantilever bridge-like prosthesis with support for 21 teeth
C. stamped-soldered bridge prosthesis with support for 21.24 teeth
D. one-piece combined bridge prosthesis with support for 21.24 teeth*
E. you can use any of the above constructions

Module 2 "Partial removable prosthetics"

Task 1

Patient K., 48 years old, applied for prosthetics. Objectively: 35, 36, 37, 46, 47 teeth are missing; orthognathic bite, mucous membrane without pathological changes. The remaining teeth on the lower jaw are stable, intact, with a well-defined equator and fissures. What orthopedic construction is recommended?
A. Bügel prosthesis*
B. Fixed prostheses.
C. Small saddle-shaped prostheses.
D. Partial lamellar prosthesis
E. Cantilever prostheses

Task 2

Patient D., 45 years old, has a bilateral terminal defect of the dentition of the upper jaw, limited to the canines. What should be the distal limit of the base of the lamellar prosthesis?
A. Close to the maximum *
B. Do not reach the "A" line by 1 cm.
S. Do not overlap the maxillary ridges.
D. Overlap line "A" by 0.5 cm.
E. Arbitrary configuration.

Task 3

Patient A. 67 years old, underwent treatment in the orthopedic dentistry clinic for partial adentia. The orthopedic treatment plan provided for the manufacture of partial removable lamellar prostheses. During the examination, it

was established that the patient has III group of dental defects. The patient came to the clinic to fix the ratio of the jaws. What clinical stage precedes the stage of fixation of CS?
A Examination
B Taking prints*
C Design checks of partial removable prostheses
D Casting of models and production of wax patterns with biting rollers
E Proposition of artificial teeth

Task 4

The doctor received a partial removable prosthesis from the laboratory. During the inspection, the following defects were found: the prosthesis has a marble appearance (white veins). What mistake did the technician make when replacing wax with plastic?
A Monomer excess
In Pakovka in the "sand" stage
C The package is in the "rubber-like" stage
D Ripening of plastic dough in an open container, without stirring*
E Non-compliance with the polymerization regime

15. Methodical provision of discipline

- **Methodological developments** for the organization of independent work **of students** in preparation for practical classes - according to the number of topics in the Module
- **Methodical development** of practical classes **for teachers -** according to the number of topics in the Module
- Sets of test tasks (to control the initial and final level of knowledge) - according to the number of topics in the Module
- **Algorithms** for performing dental manipulations
- List of theoretical questions for PMK Module
- List of practical skills for PMK Module
- **30 test tasks** (in 5 variants) for the PMK Module
- **Tickets** for the theoretical part of the PMK Module

17.Recommended Books

Main (basic) literature:

1. Hasyuk P.A., Kostenko E.Ya., Machogan V.R., Rosolovska S.O., Vorobets A.B., Radchuk V.B. Stud Book on orthopedic dentistry. Ternopil-Uzhgorod. 2018. - 369 p.

2. Rozhko M.M., Nespryadko V.P., Mykhaylenko T.N. etc. Prosthetic equipment. - K.: Kniga-plus, 2016. - 604 p.
3. Dentistry. Textbook. In 2 books - Kn. 1 / M.M. Rozhko, Z.B. Popovich, V.D. Kuroyedova, etc.; under the editorship Prof. M.M. Rozhka. - K.: VSV "Medicine", 2013. - 872 p.
4. Hasyuk P. A. Almanac of orthopedic dentistry // P. A. Hasyuk, E. Ya. Kostenko, V. R. Machogan, S. O. Rosolovska, A. B. Vorobets // Ternopil: Bohdan - 2015. - 352 p.
5. Hasyuk P. A. Technological aspects of manufacturing orthopedic structures // P. A. Hasyuk, D. M. Korol, S. O. Rosolovska, L. S. Korobeynikov, V. B. Radchuk, R. V. Kozak // Ternopil : FOP Parkhin R. A. - 2016. - 140p.
6. Korol D. M. Fundamentals of prosthetic prosthetics / D. M. Korol, D. D. Kindiy, L. S. Korobeynikov, O. D. Ojubeiska, R. V. Kozak, T. P. Malyuchenko // Poltava. - 2016 - 139 p.
7. Korol, M. D. Dental materials science / M. D. Korol, O. D. Ojubeiska, D. M. Korol, I. M. Tkachenko, V. M. Petrushanko, M. O. Ramus, A. D. Dorubets , D. D. Kindiy, L. S. Korobeynikov // Poltava: FOP Myron I. A. - 2018. - 176 p.
8. Fastovets O. O. Fixed dental prosthetics: educational and methodological manual / O. O. Fastovets, R. A. Kotelevskyi, S. S. Kobylyak // Dnipro: DMA. - 2013. - 212 p.

Additional literature

1. Golyk V. P. All-ceramic restorations of hard tissues of teeth . Textbook / V. P. Golik; I. V. Yanyshen, A. Yu. Nikonov, I. O. Pereshivaylova // Kh.: KhNMU. - 2016. - 14 p.
2. Golyk V. P. Replacement of defects of hard tooth tissues with pin structures. Indications Clinical and laboratory production stages. Textbook / V. P. Golik; O. S. Maslovsky, I. V. Yanishen, O. O. Berezhna, A. V. Pohorila // Kh.: KhNMU. - 2015. - 27 p.
3. Hasyuk A.P. Human Odontology / A.P. Hasyuk, P.A. Hasyuk, T.V. Novoseltseva // Saarbrucken: LAMBERT Academic Publishing. - 2015. - 181 p.

17. Information resource

1. Official website of the O.O. Bogomolets National Medical University http://www.nmu.edu.ua/kaf59.php
2. Educational portal of NMU named after O.O. Bogomolets http://eduport.nmu.edu.ua/
3. Electronic information resources of the department