Educational institution "RMU"

Department of Dental Disciplines

Syllabus

in the discipline "Impression and prosthetic materials" for students majoring in 560004 "Dentistry"

Form of study	on an ongoing basis
well	4
Semester	7
Exam	
Total number of credits in the curriculum	2
The total number of hours allocated to the curriculum.	60
Lectures Practical classes	18 18
Independent work	24

Syllabus Developer:
Makenzhanov A.

Reviewed and approved at a meeting of the Department of Fundamental Disciplines.
Protocol No. 1 dated "6" September 2025.

Head of department Bektasheva A.K.
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(signature)

Bishkek 2025

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Scope of the discipline and types of academic work

Well	Semester	Weeks	Total number of teaching hours		Number of hours of independent work		Total number of hours	Number of modules
			Lecture	Practical classes	SIV	SIVT		
4	7	18	18	18	12	12	60	2

Annotation of the academic discipline.«The course "Impression and Prosthetic Materials in Dentistry" provides students with the theoretical and practical foundations for selecting and using modern impression and prosthetic materials in orthopedic dentistry. Students study the physicochemical properties, classification, and clinical protocols for working with alginates, silicones, polyesters, digital impressions, and materials for fixed and removable prosthetics (ceramics, zirconium dioxide, PEEK, and hybrid composites). Particular attention is paid to adhesive protocols and biocompatibility.

The purpose and objectives of the discipline

The purpose of discipline

The main objective of training in the discipline "Impression and prosthetic materials in dentistry" is to develop students' systematic clinical knowledge and practical skills in:

- physicochemical properties, classification and clinical characteristics of modern impression materials used at the stages of orthopedic treatment;
- curing mechanisms, hydrophilicity, fidelity, shrinkage and dimensional stability of alginates, C-silicones, A-silicones, polyesters, polysulfides, hardening and thermoplastic masses;
- digital technologies for obtaining impressions: operating principles of intraoral scanners, differences from traditional methods, advantages and disadvantages of the digital protocol, working with virtual models and material libraries in CAD/CAM systems;
- modern prosthetic materials for the production of fixed and removable structures: glass ceramics (E-max), zirconium dioxide (fully and partially

stabilized), hybrid ceramics, high-tech polymers (PEEK), composites for milling;
- adhesive protocols for fixing metal-free restorations, types of fixing cements (composite, glass ionomer, temporary) and criteria for their selection;
- methods of clinical assessment of the quality of impressions (precision of marginal fit, absence of pores and deformations, clarity of gum retraction), typical errors when taking impressions and methods for eliminating them;
- biocompatibility and allergological status of polymers, ceramics and alloys, clinical manifestations of material intolerance (galvanism, allergic stomatitis) and methods of their prevention;
- algorithms for selecting impression and prosthetic materials depending on the clinical situation (single crowns, bridge prostheses, prosthetics on implants, complete removable dentures), as well as taking into account the age characteristics and aesthetic requirements of the patient;
- methods of asepsis, antisepsis and disinfection of impressions and finished structures, rules of sanitary and epidemiological regime in the dental office and laboratory.

Objectives of the discipline

- To develop a comprehensive fundamental knowledge of the physicochemical properties, curing mechanisms and clinical characteristics of alginate, silicone (C and A), polyester, polysulfide, curing and thermoplastic impression materials.
- To teach methods of clinical assessment of impression quality, identification and elimination of typical defects (pores, stretching, deformation), as well as rules for disinfection and storage of various types of impressions.
- To explore modern digital technologies in orthopedic dentistry: the operating principles of intraoral scanners, the differences between digital and traditional protocols, and the advantages and limitations of the method.
- To master the classification, properties and indications for the use of modern prosthetic materials: glass ceramics (E-max), zirconium dioxide, hybrid ceramics, PEEK, composites for CAD/CAM.
- To study adhesive protocols for fixing metal-free structures, types of fixing cements (composite, glass ionomer, temporary) and criteria for their selection depending on the restoration material.
- To develop practical skills in working with impression materials: mixing alginates, working with automatic mixers for elastomers, obtaining single- and double-layer impressions, selecting and making individual trays.
- To master the skills of clinical selection of impression and prosthetic materials depending on the type of prosthetics (crowns, bridges, implants, complete removable dentures), as well as taking into account aesthetic requirements and biocompatibility.

- Develop the ability to work in a team with related specialists (dental technician, implant surgeon) and effectively communicate material selection issues.

The block “Impression and prosthetic materials” is included in the basic part of the professional cycle for the specialty “Dentistry” (code 560004).

After mastering this discipline, the student:

Will know

terms used in dental materials science and the main methods of taking impressions and manufacturing prosthetic structures; concepts of etiology, pathogenesis, morphogenesis of complications associated with the use of materials, nosology, principles of classification of impression and prosthetic materials;

Will understand

the essence and basic patterns of physical and chemical processes occurring during the curing of impression and prosthetic materials; their influence on accuracy, stability and biocompatibility, characteristic changes in the tissues of the prosthetic bed in case of intolerance to materials (galvanism, allergic stomatitis);

Will be able to use

rules for constructing a clinical diagnosis in relation to the choice of material, principles of working with impression materials (alginates, silicones, polyesters) and orthopedic structures made of various materials;

Will be able to determine

macroscopic and microscopic defects of impressions (pores, stretches, deformations, inaccuracy of marginal fit) and associate them with a violation of the protocol for working with the material;

Will be able to carry out

clinical and laboratory analysis; differential diagnosis of errors in taking impressions; diagnosis of the causes of failures in orthopedic treatment related to the material (incorrect choice, violation of the adhesive protocol, bioincompatibility);

Will be able to analyze

characterization of the physical and chemical properties of impression and prosthetic materials (shrinkage, hydrophilicity, flowability, strength, aesthetic parameters) in order to establish indications for their use; clinical, laboratory and other data, and formulate a conclusion on their basis about the most probable

causes and mechanisms of development of complications associated with the material;

Will be able to synthesize

results of clinical examination, analysis of diagnostic models and digital impressions for an informed choice of the optimal impression and prosthetic material;

Will be able to evaluate

and develop principles of etiotropic and pathogenetic therapy for complications caused by intolerance to dental materials (material replacement, desensitizing therapy, correction of the adhesive protocol).

Subject plan for studying the discipline and competency matrix (workload is indicated in academic hours)

No.	Name sections and topics disciplines (lectures and practical classes)	Classroom activities				Total hours on	SRSP	Independent work of a	Formed competencies	Used educational	Dummies	Forms of current and border control academic
		lectures	seminars	practical classes	laboratory work							
	7th semester											
1	Introduction to impression materials. Impression trays. Classification and properties.	*2*		2		4		2	OK-1, PC-2, PC-15	*visualization lecture*	*Diagnostic plaster model*	*Oral survey*
2	Alginate materials. Chemical composition, properties, mixing technique.	2		2		4	2		PC-4, PC-22	*lecture-visualization*		*Testing, control work. Solving situational problems*
3	Elastomers: C-silicones and A-	2		2		4		2	PC-22, DPK-1	*visualizatio*	*Artificial jaws*	*A lesson*

	silicones. Chemistry of processes, properties, technology.									*n lectur e*		*using head manne quins*
4	Polysulfides and polyester materials. Properties and indications for use.	2		2		4	2		PC-19, PC-20	*lectur e-visual izatio n*		*classes using diagno stic models Testing Analysi s of OPT*
5	Hardening and thermoplastic materials. Zinc oxide-eugenol pastes.	2		2		4		2	PC-16, PC-22	*visual izatio n lectur e*	*Diagno stic plaster models*	*analysi s of clinical cases.*
6	Impression quality control. Material selection in the clinic. Criteria and errors.	2		2		4	2		PC-2, PC-4	*Visua lizatio n lectur e*		*classes using trainin g equipm ent and simulat ors. Assessi ng the acquisi tion of practic al skills (abiliti es). Solving situatio nal proble ms*

7	Modern digital impressions. Intraoral scanners, CAD/CAM.	2		2		4	2	2	IK-1, DPK-1	*Visualization lecture*		*analysis of clinical cases. Classes using simulators and training equipment*
8	Prosthetic materials. Ceramics and zirconium dioxide. Properties and indications.	2		2		4	2	2	PC-22, DPK-2	*lecture-visualization*		*business and role-playing educational game. Classes using simulators and training equipment*
9	Prosthetic materials: composites, hybrids, PEEK. Adhesive protocols.	2		2		4	2	2	PC-6, DPK-2	*Visualization lecture*		*analysis of clinical cases. Use of computer-based training programs*

	Total 8 semester	18		18		36	12	12				**Credit**
	Total hours by discipline:	**18**		**18**		**36**	**12**	**12**				***60***

Guidelines for completing practical classes

Practical orthodontic classes follow the lecture course and serve as explanatory, generalizing, and reinforcing elements. They can be held in either virtual classrooms or in the clinic.

Lesson preparation plan:

1. Review of lecture notes and textbook on the topic.
2. Study of the anatomical and morphological features of the teeth discussed in this topic.
3. Familiarization with the instruments and materials required to perform manipulations.
4. Preparing answers to self-assessment questions.

Guidelines for completing independent work (IW)

When studying the discipline "Impression and Prosthetic Materials", the following types of independent work are used:

- Study of theoretical material from lecture notes and textbooks.
- **Practicing manual skills**on dental models and phantoms.
- Independent study of specific issues with preparation of presentations.
- Analysis of clinical protocols and scientific articles on current issues in modern dentistry.
- Solving situational problems and interpreting data from additional research methods

No.	Topic of independent work for students of 5th semester:	Assignment for independent work	Recommended literature	Deadlines surrender (week number)
1.	Evolution of impression materials: history and modernity.	Abstract, presentation, preparation of the report.	Dental Materials Science: Textbook / E. S. Kalivradzhiyan, E. A. Bragin, I. P. Ryzhova [et al.]. - Moscow: GEOTAR-Media, 2023 Dictionary of professional dental terms / E. S. Kalivradzhiyan, E. A. Bragin, I. P. Ryzhova - Moscow: GEOTAR-Media, 2017 Fundamentals of Dental Prosthetics Technology. Vol. 1.2: textbook: in 2 volumes / S. I. Abakarov [et al.]; edited by E. S. Kalivradzhiyan. - Moscow: GEOTAR-Media, 2022 Dental Materials Science with a Course in Occupational Health and Safety: Textbook / M. L. Mironova, T. M. Mikhailova. - Moscow: GEOTAR-Media, 2021 https://pubmed.ncbi.nlm.nih.gov	1
2.	Comparative characteristics of hydrocolloid and elastomeric impression materials.	Abstract, presentation, preparation of a report		2

3.	Silicone impression materials: C-silicones vs. A-silicones.	Abstract, presentation		3
4.	Methods for disinfecting impressions made from various materials. WHO protocols.	Abstract, presentation, preparation using dummies.		4
5	Digital technologies in dentistry: 3D printing and CAD/CAM.	Abstract, presentation, preparation of the report.	.	5
6	PEEK in dentistry: indications, advantages and disadvantages.	Abstract, presentation, preparation of the report.		6
7	E-max glass ceramics: types, manufacturing technology, clinical aspects.	Abstract, presentation, preparation of the report.		6

Guidelines/instructions for students

3.1. Methodological recommendations for students on studying the discipline

The theoretical component of the course "Impression and Prosthetic Materials" is designed not only to deepen and consolidate the knowledge acquired in the classroom, but also to promote the development of students' clinical thinking, initiative, and skills in organizing the dentist's working time.

- **Working with lectures:**The material taken during lectures must be regularly reviewed and supplemented with information from relevant periodicals.
- **Preparation for the topics:**When studying a new topic, it is necessary to first read the recommended literature and make a brief summary of the main provisions, classifications and treatment protocols.
- **Workbook:**Each student keeps a workbook (practical classes diary), the design of which must meet the following requirements:
    - Availability of a title page indicating full name, group and course.
    - Numbering of each work, recording of the date and topic of the lesson.

- Recording the title of the work, the purpose, description of the clinical situation or stages of preparation/filling.
- **Graphic part:**Presentation of odontoglyphic diagrams, graphic representation of carious cavities, filling in the dental formula.
- **Conclusions:**At the end of each work, a justification for the chosen treatment method or a brief conclusion based on the results of the clinical analysis is formulated.

Abstract -This is a brief written summary of the content of a scientific paper on a given topic. It is an independent research project in which the student explores the essence of the problem being studied, using elements of analysis relevant to the essay topic.

The essay presents various points of view, as well as personal perspectives on the issues raised in the essay topic. The essay's content should be logical, and the presentation of the material should be problem-based and thematic.

Requirements for writing annotations:

The annotation may be 9 to 10 pages long, typed or handwritten.

Main sections: table of contents (brief outline), introduction, main content, conclusion, bibliography.

The annotation text should contain the following sections:

- Title page indicating: name of the university, faculty, topic of the abstract, full name of the author and full name of the instructor.

–Introduction, relevance of the topic

–main section

–Conclusion (analysis of literature search results)

conclusions

–The list of references must contain at least 10 bibliographic titles, including online resources.

The text part of the annotation is drawn up on a sheet of paper in the following format:

–Top margin – 2 cm; left margin – 3 cm; right margin – 1.5 cm; bottom margin – 2.5 cm;

–Text font: Times New Roman, font height – 14, spacing – 1.5;

–Page numbers are at the bottom of the page. The first page is unnumbered. The abstract must be completed correctly and in accordance with generally accepted presentation formatting standards. References must be included, including periodicals from the past five years.

Abstract evaluation criteria:

–Relevance of the research topic;

–compliance of the content with the topic;

–depth of material processing;

–the correctness and completeness of the formulation of the questions posed;

–the significance of the results obtained for further practical activities;

–correctness and completeness of use of literature;

–compliance of the abstract project with the standard;
–Quality of presentation and answers to questions during the defense of the report abstract.
Report -This is a brief but informative message reflecting the essence of the issue under consideration and various opinions on the topic under study. In some cases, the author's personal perspective may be expressed within the framework of thematic questions.
Reporting requirements:
The volume of text should not exceed five printed pages.
The quality report has four main structural elements:
1) introduction;
2) Introduction (at this stage, the speaker must interest the audience, formulate the relevance and novelty of the research, emphasize the importance and purpose of the work performed);
3) the main part (it describes the research methods used, the work done, and analyzes the results obtained); 4) conclusion (summarizing the results of the work).
*The text part of the report has been compiled.*on a sheet of the following format:
–Top margin – 2 cm; left margin – 3 cm; right margin – 1.5 cm; bottom margin – 2.5 cm;
–Text font: Times New Roman, font height – 14, spacing – 1.5;
–Page numbers are at the bottom of the sheet. There is no number on the first page.
Evaluation criteria:
- timeliness of submission;
- compliance with requirements;
- depth of material processing;
- compliance of the content with the topic;
- correctness and completeness of the source use.

List of basic and additional literature

- **Main literature**

a) main literature:

1. **Dental materials science**: textbook / E. S. Kalivradzhiyan, E. A. Bragin, I. P. Ryzhovaetc.etc.. - Moscow: GEOTAR-Media, 2023.
2. **Orthopedic Dentistry. Materials and Technologies**: textbook / A. I. Abdurakhmanov, O. R. Kurbanov. - 3rd ed. , processed and additional - Moscow: GEOTAR-Media, 2016.

3. **Microprosthetics in dentistry**: textbook / S. I. Abakarov, D. V. Sorokin, D. S. Abakarova; edited by S. I. Abakarov. - Moscow: GEOTAR-Media, 2023.
4. **Fundamentals of Dental Prosthetics Technology. Vol. 1, 2**: textbook : in 2 volumes / S. I. Abakarovetc.etc.; edited by E. S. Kalivradzhiyan. - Moscow: GEOTAR-Media, 2022.

b) additional literature:

1. 1**Dental Materials Science with a Course in Occupational Health and Safety**: textbook / M. L. Mironova, T. M. Mikhailova. - Moscow: GEOTAR-Media, 2021.
2. **Interaction of dental materials with the human body**: textbook / Kurbanov O. R., Alieva A. O., Kurbanov Z. O. - Moscow: GEOTAR-Media, 2019.
3. **Orthopedic Dentistry (faculty course)**: textbook / V. N. Trezubov, A. S. Shcherbakov, L. M. Mishnev; edited by V. N. Trezubova. - 9th ed. , processed and additional - Moscow: GEOTAR-Media, 2019.
4. **Orthopedic dentistry**: textbook / edited by E. S. Kalivradzhiyan, I. Yu. Lebedenko, E. A. Bragin, I. P. Ryzhova. - Moscow: GEOTAR-Media, 2018.
5. **Orthopedic dentistry (fixed dental prosthetics)**: textbook / O. R. Kurbanov, A. I. Abdurakhmanov, S. I. Abakarov. - Moscow: GEOTAR-Media, 2015.
6. **Dictionary of professional dental terms**/ E. S. Kalivradzhiyan, E. A. Bragin, I. P. Ryzhova. - Moscow: GEOTAR-Media, 2017.

List of resources of the information and telecommunications network "Internet" necessary for mastering the discipline

Provide links to websites that are publicly accessible.

List of resources of the information and telecommunications network "Internet" required for mastering the discipline (modules)

- Scientific electronic library eLibrary (https://elibrary.ru)
- PubMed Central (https://www.ncbi.nlm.nih.gov/pmc)
- Websites of dental material manufacturers (3M, Ivoclar Vivadent, GC, Dentsply Sirona)

- **Monitoring and evaluation of learning outcomes**
- Each module is assessed on a 100-point scale. The maximum score is 100.
- A student is allowed to take the final test if he or she has scored a certain number of points in all subjects.
- Discipline 60 or more points.

Evaluation criteria	Module 1	Module 2

Classroom activities (participation in discussions, oral questions, group work, etc.)	40 points	40 points
Independent work: essay, report.	20 points	20 points
Total for the module (testing, situational task)	40 points	40 points
Final score for the course (test):	100 points	100 points

- **Evaluation system**
- The maximum number of points for each module is 100, including:
  Independent Student Work (ISW) – 20 points.
- Current score: 40 points
- Midterm assessment (module) – 40 points
- The results of all modules for the semester are summed up and the average score is calculated.
- Students must make up missed classes and unsatisfactory grades in accordance with the faculty duty schedule established by the department.
- Retaking a module is only permitted for a valid reason and must be completed no later than two weeks after the module's due date.
- Admission to the final assessment
- A student is admitted to the final assessment (differentiated credit or exam) if he or she scores 60 points or more in a given subject.
- Credit system
- The credit system uses a multi-point grading scale with letter designations, which allows teachers to assess students' knowledge more flexibly.
- The final assessment in the form of a credit is based on attendance, the current assessment and the midterm (module) assessment.
- Final assessment format: Credit/Exam.
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Rating and Scoring Scale				
Maximum points				
	unsatisfactory	satisfactorily	good	great
20	0-11	12-15	16-17	18-20
40	0-23	24-30	31-35	36-40
60	0-35	36-45	46-53	54-60
100	0-59	60-75	76-89	90-100

Check (%)	Letter	Average score	Numerical	Traditional
96–100	A+	4.00	5	Great
93–95.99	A	3.75		
90–92.99	A-	3.67		
87–89.99	B+	3.33	4	Good
83–86.99	B	3.00		
80–82.99	B-	2.67		
77–79.99	C+	2.33	3	Satisfactorily
73–76.99	WITH	2.00		
70–72.99	WITH-	1.67		
67–69.99	D+	1.33	2	Satisfactorily
63–66.99	D	1.00		
60–62.99	D-	0.67		
0–59.99	F	0.00	1	Failure

- **I**– assigned to a student who has failed to complete all course requirements for a valid reason. The student has the right to complete all course requirements within the time limit established by the educational institution, after which the grade will be adjusted.
- **IN**– awarded to a student who decides to withdraw from a course no later than the sixth week of the semester. Applies only to elective courses.
- **AB**– is awarded to a student who has attended at least 80% (eighty percent) of the classes in the additional course as a listener (without receiving a grade).
- The average grade point average for each subject is calculated automatically in the AVN information system.
- Based on academic performance, a grade point average (GPA) is calculated, with a maximum value of 4.0. A student's GPA is determined at the end of each semester and is totaled at the end of the entire course of study.
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- **Evaluation criteria:**
- **Practical lesson assessment criteria:**
- *- excellent grade*
  This grade is awarded to a student if he/she has knowledge of the discipline in the full scope of the program and understands it deeply enough; independently, in a logical sequence and exhaustively answers all questions, highlighting the most significant; is able to analyze, compare, classify, generalize, concretize and systematize the studied material, highlighting the main points in it;
- *- Rating "good"*

*:*The student has a virtually complete knowledge of the subject according to the program (gaps in knowledge exist only in some sections); independently and partially with leading questions, provides complete answers to questions in the assignment; does not always highlight the most important things, but at the same time does not make serious errors in the answers;

- - *rating "satisfactory"*
  This test is administered in cases where the student has basic knowledge of the subject; has difficulty answering independently, uses inaccurate wording; makes mistakes in answering questions;
- - *grade "unsatisfactory"*
  This pass is issued in cases where the student has not mastered the required minimum level of knowledge on the subject and cannot answer the questions on the pass even taking into account additional leading questions from the teacher.
- **Criteria for assessing practical skills:**
- - *Excellent rating*
  The award is granted when all stages of the obstetric and gynecological examination are thoroughly and systematically performed. Clear and professional communication with the patient is essential during the examination. The student must have a thorough understanding of the obstetric and gynecological aspects being studied, including the analysis and interpretation of specific symptoms.
- - *Rating "good"*
  This skill is considered proven upon competent performance of the basic stages of an obstetric and gynecological examination and effective interaction with the patient, ensuring understanding and trust. It also requires the ability to identify key symptoms and conduct appropriate analysis.
- - *Rating "satisfactory"*
  Provided for the main stages of an obstetric and gynecological examination, but with some limitations, misunderstandings, and communication errors. Basic knowledge of symptoms and their interpretation is provided.
- - *Rating "unsatisfactory"*
  Punishment is imposed if a student makes serious errors or omissions during an obstetric-gynecological examination, as well as if there are communication problems that may cause difficulties or even dissatisfaction for the patient during the examination.
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- **Criteria for evaluating abstracts:**
- - *excellent grade*
  A student is given a grade if the essay topic is fully covered, excellent mastery of the material is demonstrated, relevant sources are used in the required quantity, the structure of the work corresponds to the assigned tasks, and the degree of independence in the work is high;
- - *rating "good"*

A student is given a grade if the essay topic is generally covered, good assimilation of the material is demonstrated, relevant sources are used, the structure of the work generally corresponds to the assigned tasks, and the degree of independence is average;

- - *rating "satisfactory"*
  This grade is given to a student if the essay topic is poorly covered, satisfactory assimilation of the material is demonstrated, the sources used and the structure of the work partially correspond to the set tasks, and the degree of independence of the work is low;
- - *grade "unsatisfactory"*
  This grade is given to a student if the essay topic is not covered, a low level of assimilation of the material is demonstrated, the sources used are insufficient, the structure of the work does not correspond to the set objectives, the work is not independent.
- **Project evaluation criteria:**
- - *Excellent rating*
  The award is given to students whose projects demonstrate outstanding depth of research into issues and aspects of obstetrics and gynecology and present innovative research approaches. Effective outreach highlights the project's creativity and originality, as well as active community engagement. The project's organization and structure should be well-organized, logically structured, and ideas should be presented clearly and professionally.
- - *rating "good"*
  The award is given to students who demonstrate in-depth research on obstetrics and gynecology issues and aspects, supported by concrete facts and data. The learning impact is significant, but there is room for improvement. The presence of creative elements lends the project originality, but some aspects may require refinement. Community engagement is positive, but could be more intense. The project's organization and structure are generally good, but some areas may require improvement.
- - *rating "satisfactory"*
  The project is presented to students if it meets the minimum requirements for studying obstetrics and gynecology topics and aspects, but requires refinement. The learning effectiveness is basic, and the project could be improved in this area. The project contains creative elements, but these could be expanded and deepened. Community engagement could be more active. The project's organization and structure require additional attention to improve clarity and coherence.
- - *grade "unsatisfactory"*
  The project offered to students does not meet basic standards and does not provide sufficient depth of study of obstetrics and gynecology issues. The learning effectiveness is extremely limited, lacking creativity and originality. Community participation is insufficient or nonexistent. The project's

organization and structure raise serious concerns, making it difficult to understand and disorganized.

- **Test evaluation criteria, MSQ:**
- - *excellent grade*

  The test's successful completion award is given to a student who provides correct, insightful, and understandable answers, demonstrating a high level of knowledge and its practical application. Important factors include the student's ability to solve complex problems, demonstrate creativity, and meet test requirements. Criteria may vary, but the general requirement is an excellent understanding and successful application of the course material (with a score of 90 or more correct answers).
- - *"good" grade*

  A test grade is awarded to a student if they demonstrate a good knowledge of the subject, provide correct answers, clearly and concisely express their thoughts, and successfully complete the main aspects of the test questions. This grade may also reflect the student's ability to apply acquired knowledge in various situations and effectively utilize acquired skills within the test questions (number of correct answers from 76 to 89).
- - *"satisfactory"*

  A test grade is awarded to a student who has demonstrated a basic understanding of the subject, provided answers that meet the minimum requirements, and successfully completed the main elements of the test. This grade may indicate that the student has mastered the basics of the material, but may not have achieved a high level of depth of knowledge or was unable to cope with more complex aspects of the tasks (with 60-75 correct answers).
- - *grade "unsatisfactory"*

  A "fail" grade is given to a student if their knowledge of the subject is insufficient, their answers contain significant errors, or do not meet the minimum requirements, or if the student fails to address key aspects of the test. This grade indicates an unsatisfactory level of mastery of the material and an inability to apply knowledge to the test questions (provided the student answered up to 59 questions correctly).
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The scale of correspondence between grades and scores on the final test.	
Points	**Grade**
90-100	"Great"
76-89	"Good"
60-75	"Satisfactorily"
0-59	"Unsatisfactory"

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- **Academic Discipline Policy:**
- - mandatory attendance of classes;
- - active participation of the student in practical classes;
- - preliminary preparation and homework;

- - High quality and timely completion of SIW tasks;
- - participation in all types of control (current, control, final);
- - Being late for classes and/or leaving before the end of classes for any reason is considered one missed class, which cannot be made up;
- - The following is unacceptable: using mobile phones during classes, cheating and plagiarism, late submission of assignments, failure to comply with subordination and rules of conduct.
- **Help:**
- For consultations on completing independent work (IA/SAU), its presentation and defense, as well as to obtain additional information on the material being studied and on all other issues arising in connection with the course being taught, please contact the teacher during the hours allocated for IAW.