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Institute of Medicine

educational division (faculty/institute/academy) as higher education programme developer

COURSE SYLLABUS

Prosthodontics (Simple Prosthetics)

course title

Recommended by the Didactic Council for the Education Field of:

31.05.03 Dentistry

field of studies / speciality code and title

The course instruction is implemented within the professional education programme of higher education:

Dentistry

higher education programme profile/specialisation title

2024-2025

1. COURSE GOAL(s)

The goal of the course Prosthodontics (Simple Prosthetics) is to equip students with knowledge and skills in prevention, diagnostics, prosthetic treatment methods of diseases of the dentition; able to provide outpatient dental prosthetic care to patients with defects of hard dental tissues.

2. REQUIREMENTS FOR LEARNING OUTCOMES

Mastering the course (module) Prosthodontics (Simple Prosthetics) is aimed at the development of the following competences /competences in part: (GPC)-5, 6, (GC)-1, (PC)-1, 2, 6.

Competence	Competence descriptor	Competence formation indicators
code		(within this course)
GC-1	Being able to implement critical analysis of problem situations based on systems approach, develop an action strategy.	GC-1 A student should be able to implement critical analysis of problem situations based on systems approach, develop an action strategy.
GPC-5	Being able to examine patients to determine a diagnosis when solving professional tasks	GPC-5 A student should be able to examine patients to determine a diagnosis when solving professional tasks
GPC-6	Being able to prescribe non-drug and drug treatment, monitor its efficacy and safety when solving professional tasks	GPC-6 A student should be able to prescribe non-drug and drug treatment, monitor its efficacy and safety when solving professional tasks
PC-1	Being able to make an examination of a patient in order to determine a diagnosis	PC-1 A student should be able to make an examination of a patient in order to determine a diagnosis
PC-2	Being able to prescribe, monitor the efficacy and safety of non-drug and drug treatment	PC-2 A student should be able to prescribe, monitor the efficacy and safety of non-drug and drug treatment
PC-6	Being able to analyze and present in public medical information based on evidence-based medicine, participate in scientific research,	PC-6 A student should be able to analyze and present in public medical information based on evidence-based medicine, participate in scientific research, introduce new methods and techniques aimed at protecting public health

Table 2.1. List of competences that students acquire through the

Competence code	Competence descriptor	Competence formation indicators (within this course)
	introduce new methods	
	and techniques aimed at	
	protecting public health	

3. COURSE IN HIGHER EDUCATION PROGRAMME STRUCTURE

The course refers to the $\underline{core/variable/elective^*}$ component of (B1) block of the higher educational programme curriculum.

* - Underline whatever applicable.

Within the higher education programme students also master other (modules) and / or internships that contribute to the achievement of the expected learning outcomes as results of the course study.

Table 3.1. The list of the higher education programme components/disciplines that contribute to the achievement of the expected learning outcomes as the course study results

Compete nce code	Competence descriptor	Previous courses/modules*	Subsequent courses/modules*
GC-1	Being able to implement critical analysis of problem situations based on systems approach develop an action strategy	Cariesology and diseases of tooth hard tissues Fixed prosthodontics (simple prosthodontics)	Complex prosthodontics Gnathology and functional diagnostics of temporomandibular joint Complex prosthodontics Gnathology and functional diagnostics of temporomandibular joint
GPC-5	Being able to examine patients to determine a diagnosis when solving professional tasks	Cariesology and diseases of tooth hard tissues Fixed prosthodontics (simple prosthodontics)	Complex prosthodontics Gnathology and functional diagnostics of temporomandibular joint Complex prosthodontics Gnathology and functional diagnostics of temporomandibular joint
GPC-6	Being able to prescribe non-drug and drug treatment, monitor its efficacy and safety when solving professional tasks	Cariesology and diseases of tooth hard tissues Fixed prosthodontics (simple prosthodontics)	Complex prosthodontics Gnathology and functional diagnostics of temporomandibular joint Complex prosthodontics Gnathology and functional diagnostics of temporomandibular joint
PC-1	Being able to make an examination of a patient in order to determine a diagnosis.	Cariesology and diseases of tooth hard tissues Propaedeutics of dental diseases Fixed prosthodontics (simple prosthodontics	Cariesology and diseases of tooth hard tissues Propaedeutics of dental diseases Fixed prosthodontics (simple prosthodontics
PC-2	Being able to	Cariesology and	Complex prosthodontics

Compete nce code	Competence descriptor	Previous courses/modules*	Subsequent courses/modules*
	prescribe, monitor the efficacy and safety of non-drug and drug treatment	diseases of tooth hard tissues Propaedeutics of dental diseases Fixed prosthodontics (simple prosthodontics	Gnathology and functional diagnostics of temporomandibular joint
PC-6	Being able to analyze and present in public medical information based on evidence- based medicine, participate in	Cariesology and diseases of tooth hard tissues Propaedeutics of dental diseases Fixed prosthodontics (simple prosthodontics	Complex prosthodontics Gnathology and functional diagnostics of temporomandibular joint

* To be filled in according to the competence matrix of the higher education programme.

4. COURSE WORKLOAD AND ACADEMIC ACTIVITIES

The total workload of the course is 2 credits (72 academic hours).

*Table 4.1. Types of academic activities during the periods of higher education programme mastering (full-time training)**

Type of academic activities		Total academic hours	Semesters/training modules 5
Contact academic hours		51	51
including:			
Lectures (LC)			
Lab work (LW)		30	30
Seminars (workshops/tutorials) (S)			
Self-studies		21	21
Evaluation and assessment (exam/passing/failing grade)			
Total workload of the ac.h.		72	72
discipline credits		2	2

* To be filled in regarding the higher education programme correspondence training mode.

Type of academic activities		Total academic hours	Semesters/training modules 5
Contact academic hours		51	51
including:			
Lectures (LC)			
Lab work (LW)		51	51
Seminars (workshops/tutorials) (S)			
Self-studies		18	18
Evaluation and assessment (exam/passing/failing grade)		3	3
Total workload of the ac.h.		72	72
discipline credits		2	2

* To be filled in regarding the higher education programme correspondence training mode.

5. COURSE CONTENTS

Course module title	Course module contents (topics)	Academic activities types
Module 1 Methods of examination of patients in the clinic of prosthetic dentistry. Organization of prosthetic dental care.	 1.1.Topic Modern equipment, machines, tools at the workplace of a prosthodontist. Medical documentation, rules for filling it. Sanitary and anti-epidemic measures. Methods of examination of patients in the clinic of prosthetic dentistry: clinical and additional. Additional survey methods. Xray methods of examination. Indications for X-ray examination. "Reading" of X-rays. Methods for determining the functional state of the dentition (static, functional). Medical documentation and rules for filling it. Medical case as a scientific medical and legal document. 	LW
	Topic 1.2 Pathology of hard tissues of teeth. Classification. Etiological factors, clinic. Diagnostics. Basic and additional diagnostic methods. Diagnostic models. Characterization of impressions and impression materials. Features of alginate impression materials. Assessment of the quality of impressions. Getting plaster models. Analysis of diagnostic models. Differential diagnosis. Features of filling out a medical outpatient card (form 43-u) for patients with defects in dental hard tissues.	LW
Module 2 Methods of prosthetic	2.1. Topic 2.1 Treatment of pathology of hard tissues of teeth.	LW

Table 5.1. Course contents and academic activities types

Course module title	Course module contents (topics)	Academic activities types
treatment of patients with defects of hard dental tissues by inlays.	Types of dentures that restore the anatomical shape and size of the destroyed tooth crown. The choice of the method of orthopedic treatment depending on the index of destruction of the clinical crown. Cavity classifications. Indications and contraindications for inlay prosthetics. Types, classification of inlays. Clinical requirements for inlays.	
	Materials for making inlays. Methods for modeling inlays (clinical and laboratory). Clinical and laboratory stages of making inlays. Features of preparation for various types of inlays. Modern materials and technologies for the manufacture of inlays in prosthetic dentistry.	LW
Module 3 Methods of prosthetic treatment of patients with defects of hard dental tissues by crowns.	Topic 3.1 Artificial crowns. Types, classification of artificial crowns. Indications and contraindications for prosthetics with artificial crowns. Clinical requirements for artificial crowns. Materials for the manufacture of artificial crowns.	LW
	Topic 3.2 Features of preparation of teeth in the manufacture of stamped metal crowns. Criteria for assessing the quality of tooth preparation. Prevention of errors and complications at the stage of preparing teeth for crowns.	LW
	Topic 3.3. Artificial crowns. Clinical and laboratory stages of prosthetics with metal stamped crowns. Clinical stage of fitting a metal swaged crown. Requirements to be met by a metal swaged crown and quality assessment criteria. Determination of the depth of immersion in the gingival groove. The presence of contact points, the tightness of the edge of the crown to the tooth tissues, analysis of restoration of the shape of the dentition, determination of contact with antagonists. Possible errors at the clinical and laboratory stages of the manufacture of stamped metal crowns and complications during their use.	LW
	Topic 3.4. Prosthetic treatment with cast all-metal crowns. Indications and contraindications. Principles, techniques, features of tooth preparation. The method of forming the gingival ledge, its shape,	LW

Course module title	Course module contents (topics)	Academic activities types
	 location in relation to the gum. Methods of expansion (retraction) of the periodontal sulcus. Fitting a cast all-metal crown. Clinical requirements to be met by all-metal cast crowns. Determination of the tightness of the crown to the tooth tissues 	
	Topic 3.5. Artificial cast all-metal crowns. Laboratory stages of manufacturing a cast all-metal crown. Features of making working models. Technique of precision casting of metal alloys. Characteristics of metal alloys for the manufacture of solid structures. Composition, properties. Requirements to be met by alloys for metal-ceramic crowns. Working and additional impressions.	LW
	Topic 3.6. Artificial combined crowns. Features of preparation with a shoulder. Materials for veneering crowns. Features of the frameworks of metal-plastic and metal-ceramic crowns. Working silicone two-layer one-step and two-step impressions	LW
	Topic 3.7. Metal-ceramic crowns. Laboratory stages of production of metal-ceramic crowns. Ceramic facing materials: composition, properties. Correction of the color of the cladding. Glazing of a metal-ceramic crown. Occlusal fit.	LW
	Topic 3.8. Metal-ceramic crowns. The peculiarity of the clinical stages of prosthetics. Checking the availability of space for the application of the facing material. Selection of the color of the facing material. Fitting a metal-ceramic crown in the oral cavity. Correction of the occlusal relationship. Possible errors at the clinical and laboratory stages of the manufacture of metalceramic crowns, their consequences and methods. Disadvantages of combined crowns.	LW

Course module title	Course module contents (topics)	Academic activities types
	Topic 3.9. Prosthetic treatment of dental hard tissue defects with ceramic crowns. Indications and contraindications for their use. Features of preparation of teeth. Obtaining impressions. Clinical and laboratory stages of manufacturing. Materials for the manufacture of ceramic crowns, their composition, properties. The stage of choosing the color in the orthopedic treatment of patients with defects in the hard tissues of the teeth. Hardware method.	LW
	. Topic 3.10. Artificial crowns. Acrylic crowns. Indications and contraindications. Clinical and laboratory stages of prosthetics with acrylic crowns. Features of tooth preparation. Fitting a acrylic crown. Disadvantages of acrylic crowns. Temporary crowns. One-stage (clinical) fabrication of temporary acrylic crowns. Technique and materials for temporary fixation.	LW
Module 4 Methods of prosthetic treatment of patients with total destruction of the crown of the tooth.	Topic 4.1. Complete absence (destruction) of the tooth crown. Etiology. Methods of orthopedic treatment with complete destruction of the tooth crown. Types of prosthetic pin structures (anchor pins, stump pin tabs, pin teeth). Indications for choosing a method of treatment with a pin construction, depending on the clinical condition of the gingival part of the root. Requirements to be met by the root and its periapical tissues for prosthetics.	LW
	Topic 4.2. Modern technologies for the manufacture of pin structures.	LW
	Topic 4.3. Restoration with stump pin structures. Preparation of the gingival part and root canal. Direct method of making a wax composition with a pin. An indirect method of making a postcore structure.	LW
Module 5 Methods of prosthetic treatment of patients with defects of hard dental tissues. Clinical step: cementation of restorations.	Topic 5.1. Clinical stage of fixation of the orthopedic structure. Fixation is a temporary constant; cement, adhesive. Types of cements and materials used for fixing crowns, inlays, veneers, post structures. Features of the adhesive fixation technique. Factors influencing the choice of the fixation technique	LW

Course module title	Course module contents (topics)	Academic activities types
	Topic 5.2.	LW
	Crowns removal techniques, sawing and	
	debonding tools and techniques.	
* to be filled in only	for full time training: IC lactures: IW lab work: S seminars	

* - to be filled in only for <u>full</u>-time training: *LC* - *lectures; LW* - *lab work; S* - *seminars.*

6. CLASSROOM EQUIPMENT AND TECHNOLOGY SUPPORT REQUIREMENTS

	lassroom equipment and technol	Specialised educational / laboratory equipment,
Type of academic	Classroom equipment	software, and materials for course study
activities	Classiooni equipment	(if necessary)
Lab work	An auditorium for	Set of specialized furniture: a double student
Lub work	laboratory individual	desk -13, a chair for a teacher; LCD panel, a
	consultations, monitoring	monoblock personal computer, a video
	and intermediate	camera on a tripod, a metal cabinet for storing
	certification	equipment, a built-in cabinet for materials and
	certification	tools -6 pcs, a sink, a mobile garbage can with
		a lid for at least 200 liters, a glass cabinet with
		visual aids - types of dentures.
		Metal safe, four
		section for storing
		handpieces and
		burs Computers
		with the CEREC
		3D program - 14
		pieces.
		Specialized educational / laboratory
		equipment and materials: Dental light-curing
		lamps -14. Photopolymerizer for individual
		spoons -7.
		Dental motors - 14.
		Dental electric spatulas - 14 pcs.
		Water baths - 4 pcs.
		Stands with types of dentures and instruments.
		Instruments:
		Diagnostic models with various defects of
		hard tissues - 12 sets each.
		Samples of dentures: inlays, crowns, post
		constructions - 12 sets
		Modeling wax - 12 sets
		Anvil - 3
		Hammer for fitting crowns - 3
		Beak forceps -3
		Crampon pliers-3
		Crown scissors -3
		Silicone base impression material, 900 g per
		group
		Impression trays No. 3 for the upper and

Table 6.1. Classroom equipment and technology support requirements

Type of academic activities	Classroom equipment	Specialised educational / laboratory equipment, software, and materials for course study (if necessary)		
		lower jaws of 14 Plastic for temporary crowns 10 g per student Light-curing resin for modeling inlays, 10g per student Material for adhesive cementation of crowns - 0.5 g per student Vaseline - 14 tubes Temporary fixation material - 5 g per student Insulating cotton swabs ro 2 per student Glass for mixing cement – 14		
Lab work	An auditorium for laboratory studies, monitoring and intermediate certification, containing 15 sets of specialized furniture	tables under simulators and dental simulators "Saratoga Spa" blocks of a doctor [2 turbine hoses M4] and an assistant [multifunctional pistol, saliva ejector, vacuum cleaner], a multifunctional pedal, a Venturi aspiration system with a centralized electric pump, dental phantom models FRASAKO (Germany) on a minitorce with an articulator, models of the upper and lower jaws of the CHVN type 28 (Zarnitsa, Russia) with a face mask and pneumatic or mechanical adjustment of the phantom position along 2 axes in the form of a long table for 12 vis-a- vis vis-a-vis 2 and four-seater modules in the shape of a "chamomile" Wooden chair with a back on wheels for a dental technician -20 pcs. Special sink in stainless steel with two sinks and a plaster sump. Plaster tables for 14 workplaces. Waste bin with a cover for 250 liters. Dental chair with a lamp and a Frasaco chaise phantom with an articulator with models of the upper and lower jaws of the CHVN 28 type (Zarnitsa, Russia) with a face mask and mechanical adjustment of the phantom position along 2 axes. Wall screen and multimedia projector Epson. Dell LCD panel with a diagonal of at least 120cm. Specialized educational / laboratory equipment and materials: Portable vibration table - 4. Trimmer -1. Vacuum plaster mixer - 1. Scales for plaster, Apparatus for cleaning and lubricating handpieces "Assistina" -1.		

Type of academic activities	Classroom equipment	Specialised educational / laboratory equipment, software, and materials for course study (if necessary)		
		Denture cleaning steam jet - 1.		
		Vacuumformer-1.		
		Tools:		
		Disposable examination kits 400 kits;		
		Models of the upper and lower jaws CHVN 28A - 14 sets		
		Protective screens of the dentist -14		
		Spatulas for mixing plaster -14		
		Silicone flasks for mixing gypsum-14, Plaster knife - 14		
		Dental spatula - 14 pcs.		
		Inspection Tool Sets -14 Sets		
		Table lamps on brackets-14 pcs		
		Impression trays number 3 for the upper and		
		lower jaws, metal, perforated, 14 each.		
		Alginate mass 200 g per student		
		Gypsum grade 2 500 g per student		
		Zarnitsa teeth for CHVN28A - No. 36 - 2		
		people per student No. 34, 1; No. 11 - 1 tooth		
		each.		
		Dissection burs - set of 5 Vladmiv burs for every 5 students.		
		Carbide core saw - 1 per 5 students. Articulating paper 100 microns thick - 2		
		sheets for each student		
		C-silicone for impressions - a set of 900		
		grams of bulk and corrective for each group of		
		students		
		Cement-retained material - 5 g per student Insulating cotton swabs ro 2 per student Glass for mixing cement - 14		

* The premises for students' self-studies are subject to <u>MANDATORY</u> mention

7. RESOURCES RECOMMENDED FOR COURSE STUDY

Main readings:

- Orthopedic dentistry: textbook / S.D. Arutyunov, E.A. Bragin, S.I. Burlutskaya [and others]; edited by E.S. Kalivradjian, I.Yu. Lebedenko, E.A. Bragin, I.P. Ryzhova. 3rd ed., Rev. and add. M.: GEOTAR-Media, 2020 .-- 800 p. : ill. ISBN 978-5-9704-5272-1: 2200.00.
- 2. Technology of dental and maxillary prosthetics [Text]: a guide for practical training / V. N. Trezubov, E. A. Bulycheva, S. D. Arutyunov. Moscow: Practical Medicine, 2020 .--

167 p. : ill., color. silt ; 25 cm. - Bibliography: p. 167 (10 titles). - 500 copies - ISBN 978-5-98811-582-3 (in translation)

3. Guide to practical exercises in orthopedic dentistry for 3rd year students / edited by I. Yu. Lebedenko, V. V. Erichev, B. P. Markov / (Authors: S. D. Arutyunov, etc.) allowance. - M .: Practical Medicine, 2006. (Part I. - 432 s).

 Denture technology: textbook / S.D. Arutyunov, D.M. Bulgakova, M.G. Grishkina [and others]; ed. M.M. Rasulova, T.I. Ibragimova, I. Yu. Lebedenko. - 2nd ed., Rev. and add. -M.:

GEOTAR-Media, 2016 .-- 384 p. - ISBN 978-5-9704-3830-5. http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn_FindDoc&id=475755&idb=0

Addititonal readings:

Prosthetic dentistry [Text]: Textbook / V.N. Kopeikin [and others]; Ed. V.N. Kopeikina, M.Z. dental faculties of medical universities). - ISBN 5-225-04598- Mirgazizova. - 2nd ed., Add. - M.: Medicine, 2001 .-- 624 p. : ill. - (Educational literature for students 7: 276.00.56.6 - O-70

- I.Yu. Lebedenko, T.I. Ibragimov, A.N. Ryakhovsky Functional and instrumental research methods in orthopedic dentistry [Text]: Textbook for universities. - M.: Medical Information Agency, 2003. - 128 p. : ill. -ISBN 589481-135-X: 260.00.56.6 - L33.
- Fixed prosthetics: the technology of manufacturing a steel stamped crown [Electronic resource]: Teaching aid / L.S. Sergeeva. - SPb. : Publishing house "Lan", 2018. - 52 p. - (Textbooks for universities. Special literature). - ISBN 978-5-8114-2863-2.
- 3. Prosthetic dentistry: national leadership / ed. I.Yu. Lebedenko, S.D. Arutyunova, A.N. Ryakhovsky. GEOTAR Media, 2016 .-- 824 p.

Internet (based) sources

- 1. Electronic libraries with access for RUDN students:
 - -Electronic library network of RUDN ELN RUDN http://lib.rudn.ru/MegaPro/Web
 - ELN «University Library online» <u>http://www.biblioclub.ru</u>
 - ELN Urait http://www.biblio-online.ru
 - ELN «Student Advisor» <u>www.studentlibrary.ru</u>
 - ELN «Lan» <u>http://e.lanbook.com/</u>
- 2. Databases and search engines:

- electronic fund of legal and regulatory and technical documentation http://docs.cntd.ru/

- search system Yandex https://www.yandex.ru/
- search system Google <u>https://www.google.ru/</u>
- abstract database SCOPUS http://www.elsevierscience.ru/products/scopus/

Training toolkit for self- studies to master the course *:

1. The set of lectures on the course "Prosthodontics (Simple Prosthetics)"

2. The laboratory workshop (if any).on the course "Prosthodontics (Simple Prosthetics)"

3. The guidelines for writing a course paper / project (if any) on the course "Prosthodontics (Simple Prosthetics)".

4.

* The training toolkit for self- studies to master the course is placed on the course page in the university telecommunication training and information system under the set procedure.

8. ASSESSMENT TOOLKIT AND GRADING SYSTEM* FOR EVALUATION OF STUDENTS' COMPETENCES LEVEL UPON COURSE COMPLETION

The assessment toolkit and the grading system^{*} to evaluate the competences formation level (GPC-5, 6, GC-1, PC-1, 2, 6.) upon the course study completion are specified in the Appendix to the course syllabus.

* The assessment toolkit and the grading system are formed on the basis of the requirements of the relevant local normative act of RUDN University (regulations / order).

DEVELOPERS:

Professor of the Department of prosthetic dentistry		M. V. Bykova		
position, department	signature	name and surname		
HEAD OF EDUCATIONAL DEPART of prosthetic dentistry	TMENT:	I. Yu. Lebedenko		
name of department	signature	name and surname		
HEAD OF HIGHER EDUCATION PROGRA First Deputy Director of Medical Institute	AMME:	S.N. Razumova		
position, department	signature	name and surname		

Fund of assessment tools for carrying out the intermediate certification for the discipline (module)

	Table № 1.
Assessment tools	Quantity
Control questions	50
Tasks in the test form	100
Case study	15

Standard control tasks or other materials necessary for the assessment of knowledge and skills that characterize the stages of the formation of competencies.

1.1.1. Tasks in test form (example)(UC-1, GPC-5,6, PC-1,2,6)

- 1. ARTIFICIAL CROWNS CAN BE ACCORDING TO THE MANUFACTURING METHOD:
 - a. Acrylic
 - b. Metal
 - c. Casted*
 - d. PFM
- 2. THE WHOLE CROWN DESTRUCTION IS THE INDICATION FOR
 - a. Post and crown*
 - b. PFM crown
 - c. Veneer
 - d. Inlay

1.1.2. Situational tasks (example)

Task (UC-1, GPC-5,6, PC-1,2,6)

Patient V. came to the clinic with complaints of darkening of the anterior tooth of the upper jaw.

Objectively: tooth 1.1 is intact, tooth 2.1 has an extensive carious cavity, on the palatal surface with access to both contact surfaces.

Additional research methods: the sighting X-ray shows insignificant periapical changes in the form of a darkening focus of 1, 1 mm in diameter.

What diagnosis can be made in the presence of these complaints and objective research? Suggest a treatment plan.

Answer.

Diagnosis: Chronic periodontitis. Endodontic treatment. Remove caries-affected tissues. Make a pin stump tab. Restore a tooth with a crown

1.1.3. Control tasks/questions

Name the crown types ((UC-1, GPC-5,6, PC-1,2,6)

1.2. Procedure, criteria and assessment scale for intermediate certification

The discipline is studied in the V semester.

To assess the quality of mastering the curriculum, a point-rating system (BRS) and ECTS assessments are used.

Points are accumulated by students in the course of academic studies, monitoring of progress and intermediate certification during the semester.

The academic discipline is considered mastered if the student scored more than 50% of the possible number of points. The maximum mark for the discipline studied during the semester is 100 points.

A student does not receive these credits if, during his studies, working with a teacher and on his own, he scores less than 51 points (out of 100 possible).

Intermediate certification for the discipline is carried out in the form of a test.

The test consists of: testing and interview.

Interim certification procedure:

1. Conducting testing of students

2. Interview

The test is carried out at the end of the study of the discipline in the semester.

The points scored by the student during the semester or at the end of the study of the discipline are converted into an assessment according to the rules established in Table No. 10.

Table № 2

Score system of knowledge assessment								
Points of Score –Rating System	Traditional grades in RF	Points to transfer grades	Grades	ECTS grades				
86 - 100	5	95 - 100	5+	А				
80 - 100	5	86 - 94	5	В				
69 - 85	4	69 - 85	4	С				
51 (0	3	61 - 68	3+	D				
51 - 68		51 - 60	3	Е				
0 50	2	31 - 50	2+	FX				
0 - 50		0-30	2	F				
51 - 100	Passed	51 - 100	Passed	Passed				

Description of ECTS grades

A — Excellent (5+)

The theoretical content of the course has been mastered completely without gaps. The necessary practical skills with the mastered material have been formed. All the training tasks provided by the training program have been fulfilled, the quality of their implementation is assessed by the number of points close to the maximum. Student has a command of supplementary material that is not included in the training course.

B — Very good (5)

The theoretical content of the course has been mastered completely without gaps. The necessary practical skills of working with the mastered material have been basically formed. All the training tasks provided by the training program have been fulfilled, the quality of performance

of most of them is assessed by the number of points close to the maximum. Command of some additional information not included in the training course.

C — Good (4)

The theoretical content of the course has been mastered completely, without gaps. Some practical skills of working with mastered material have not been sufficiently formed. All training tasks provided by the training program have been fulfilled, the quality of performance of none of them has been assessed by the minimum number of points. Some types of tasks have been completed with mistakes. Confident knowledge, limited curriculum material.

D — Satisfactory (3+)

The theoretical content of the course has been partially mastered, but the gaps are not significant. The necessary practical skills of working with the mastered material have been basically formed. Most of the training tasks included in the training program have been completed. Some of the completed tasks may contain mistakes.

E — Mediocre (3)

The theoretical content of the course has been partially mastered. Some practical skills are not formed. Most training tasks provided by the training program have not been fulfilled, or the quality of performance of some of them was estimated by the number of points close to the minimum.

FX — Conditionally unsatisfactory (2+)

The theoretical content of the course has been partially mastered. The necessary practical skills are not formed. Most educational tasks provided by the training program have not been fulfilled, or the quality of their implementation is assessed by the number of points close to the minimum. With additional independent work on the course material it is possible to improve the quality of the performance of educational tasks.

F — Certainly unsatisfactory (2)

The theoretical content of the course has not been mastered. The necessary practical skills have not been formed. All completed assignments contain blunders. Additional independent work on the course material will not lead to any significant improvement in the quality of the training tasks.