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MINISTRY OF EDUCATION AND SCIENCE OF RUSSIA

**Federal State Budgetary Educational Institution
of higher education**

**«I.N. Ulianov Chuvash State University»
(FSBEI of HE «I.N. Ulianov Chuvash State University»)**

Medical Faculty

Department of Propaedeutics of Dental Diseases and New Technologies

«APPROVE»

Vice-rector for Academic Affairs


I.E. Poverinov

« 13 » 04 2022

**Working programs of the discipline (module)
«Физиотерапия в стоматологии / Physiotherapy in Dentistry»**

Direction of training / specialty 31.05.03 Стоматология / Dentistry
Graduate's qualification Врач-стоматолог / Dental Practitioner

Direction (profile) / specialization «Dentistry»

Form of training – очная / intramural

Course – 3

Term – 6

Total academic hours/credit points – 72/2

The year of beginning the training – 2022

The fundamental document for compiling the working program of the discipline (module)
Федеральный государственный образовательный стандарт высшего образования -
специалитет по специальности 31.05.03 Стоматология (приказ Минобрнауки России от
12.08.2020 г. № 984)

Approved by:
Head of the department, Candidate of Medical Sciences L.I. Nikitina
Professor, Doctor of Medical Sciences L.R. Mukhamedzhanova

The working program was approved at the meeting of the Department of Propaedeutics of
Dental Diseases and New Technologies,
25.03.2022, protocol № 8
Head of the department L.I. Nikitina

Approved by
Dean of the Medical Faculty V.N. Diomidova
Acting Head of the Educational and Methodological Department E.A. Shirmanova

1. The purpose and objectives of training in the discipline (module)

The purpose of the discipline - to provide students with the theory and practice of physical methods for the prevention, diagnosis, treatment and rehabilitation of dental diseases;
to teach students the basics of physiotherapy, the general principles of therapeutic apparatuses, the reactions of oral organs and tissues when using physical treatments.

The objectives of the discipline - studying the theoretical bases of physiotherapy, the mechanism of action of physical

The study of the theoretical bases of physiotherapy and the mechanism of action of physical factors, based on the patterns of pathological processes;

acquiring practical skills in carrying out physiotherapeutic procedures;

improvement of skills in working with basic physiotherapeutic

equipment, instruments, materials;

know and comply with sanitary and hygienic requirements, safety rules

safety rules;

to repeat basics of medical deontology, semiology, diagnostics of main dental diseases, performance of separate dental manipulations on the reception of a dental patient;

mastering basic professional manual skills of dentist when using physiotherapeutic methods;

practicing the skills of providing first aid to a dental patient in case of emergency.

2. The place of practical training in the structure of the educational program of higher education

The discipline «Физиотерапия в стоматологии / Physiotherapy in Dentistry» относится к части учебного плана формируемой участниками образовательных отношений refers to the mandatory part in the curriculum of the educational program of higher education (hereinafter referred to as the EP of HE) in the field of training / specialty 31.05.03 Стоматология, direction (profile) / specialization of the program «Dentistry».

Previous academic disciplines (modules) and (or) practices that form the knowledge, skills and abilities necessary for training in the discipline (module):

Терапевтическая стоматология / Therapeutic Dentistry

Хирургическая стоматология / Surgical Dentistry

Патофизиология / Pathophysiology

Фармакология / Pharmacology

Биохимия / Biochemistry

Микробиология, вирусология / Microbiology, Virology

Нормальная физиология / Normal Physiology

Пропедевтическая стоматология / Propaedeutic Dentistry

Анатомия / Anatomy

Гистология, эмбриология, цитология / Histology, Embryology, Cytology

Иммунология / Immunology

Медицинская физика / Medical Physics

Knowledge, skills and abilities formed as a result of training in a discipline (module) are necessary when teaching in the following disciplines (modules) and (or) practices:

Терапевтическая стоматология / Therapeutic Dentistry

Хирургическая стоматология / Surgical Dentistry

Детская стоматология / Pediatric Dentistry

Медицинская реабилитация с общей физиотерапией / Medical Rehabilitation with General Physiotherapy

3. Planned learning outcomes in the discipline (module), correlated with the planned learning outcomes

Planned learning outcomes in the discipline (module), correlated with the planned learning outcomes

Code and name of the competence	Code and name of the competence achievement	Descriptors for the indicator of competence achievement (learning)
ПК-2 Способен назначить, контролировать эффективность и безопасность немедикаментозного и медикаментозного лечения / He/she is able to prescribe, monitor the effectiveness and safety of non-drug and pharmaceutical treatment	ПК-2.1 Способен разработать план лечения, назначить лекарственные препараты, немедикаментозное лечение, медицинские изделия в соответствии с действующими порядками оказания медицинской помощи, клиническими рекомендациями (протоколами лечения) по вопросам оказания медицинской помощи с учетом стандартов медицинской помощи / He/she is able to develop a treatment plan, prescribe medications, non-drug treatment, medical devices in accordance with current procedures for providing medical care, clinical recommendations (treatment protocols) on the issues of providing medical care, taking into account the standards of medical care	clinical picture, basic treatment methods (medical indications, contraindications, complications) of salivary gland diseases, congenital, acquired anomalies of teeth, dental rows, alveolar processes, jaws and face; methods of treatment of dento-alveolar, facial anomalies in children and adults; principles of structure and rules of operation of medical devices (dental equipment); modern medical devices (equipment, instruments and materials) used in dentistry. develop optimal treatment tactics for dental pathology in children and adults, taking into account the general medical condition and further rehabilitation of the patient; justify the scheme, plan and tactics of patient management, medical indications and contraindications for surgery. methods for the treatment of maxillary, facial anomalies in children and adults; basic methods of auxiliary surgical treatment of patients with maxillofacial anomalies.
ПК-2 Способен назначить, контролировать эффективность и безопасность немедикаментозного и медикаментозного лечения / He/she is able to prescribe, monitor the effectiveness and safety of	ПК-2.2 Способен контролировать эффективность и безопасность назначенного лечения, при необходимости корректировать его в соответствии с действующими	topographical anatomy of the head, maxillofacial region, peculiarities of blood supply, innervation and lymphatic system, structure of teeth, embryology of maxillofacial region, main embryogenesis disorders; features of medical care in

<p>non-drug and pharmaceutical treatment</p>	<p>порядками оказания медицинской помощи, клиническими рекомендациями (протоколами лечения) по вопросам оказания медицинской помощи с учетом стандартов медицинской помощи / He/she is able to monitor the effectiveness and safety of the prescribed treatment, if necessary, adjust it in accordance with current procedures for providing medical care, clinical recommendations (treatment protocols) on providing medical care, taking into account the standards of medical care</p>	<p>emergency and urgent forms for dental diseases. justify the scheme, plan and tactics of patient management, medical indications and contraindications for surgery; develop optimal treatment tactics for dental pathology in children and adults, taking into account the general medical condition and further rehabilitation of the patient. the treatment of dental and facial anomalies in children and adults; principles, techniques and methods of anaesthesia in dentistry; principles of construction and rules of operation of medical devices (dental equipment); modern medical devices (equipment, instruments and materials) used in dentistry.</p>
<p>ПК-3 Способен разработать, реализовать и контролировать эффективность индивидуальных реабилитационных программ / He/she is able to develop, implement and monitor the effectiveness of individual rehabilitation programs</p>	<p>ПК-3.1 Способен разработать индивидуальную реабилитационную программу / He/she is able to develop an individual rehabilitation program</p>	<p>medical indications and contraindications for rehabilitation measures for various diseases and pathological conditions; basic principles of rehabilitation of patients with maxillofacial diseases; occupational health and safety requirements, fire safety, emergency procedures; sanitary-epidemiological norms and requirements; rules of application of personal protective equipment. draw up an individual rehabilitation plan for a patient with diseases of the maxillofacial region; monitor the progress of the patient's rehabilitation; select medicines for rehabilitation. develop a rehabilitation plan for patients with maxillofacial diseases; to carry out rehabilitation measures for diseases of the maxillofacial region;</p>

		personal protective equipment.
ПК-3 Способен разработать, реализовать и контролировать эффективность индивидуальных реабилитационных программ / He/she is able to develop, implement and monitor the effectiveness of individual rehabilitation programs	ПК-3.2 Способен реализовать и контролировать эффективность разработанной индивидуальной реабилитационной программы / He/she is able to implement and monitor the effectiveness of the developed individual rehabilitation program	the principles of design and operation of medical devices in the category "Dental equipment". provide qualified medical care in their speciality, using modern rehabilitation techniques approved for use in medical practice. methods for the comprehensive rehabilitation of patients with dental disease, taking into account the general condition of the body and the presence of concomitant pathology.

4. Structure, scope and content of the discipline (module)

Educational activities in the discipline (module) are carried out:

- in the form of students' face-to-face work with the teaching staff of the organization and (or) persons involved by the organization to implement the educational programs on other terms (hereinafter - contact work);

- in the form of students' independent work.

Face-to-face work can be classroom-based, extramural, as well as it can be conducted in an electronic information and educational environment (EIEE).

Learning sessions in the discipline (module) and interim assessment of students are conducted in the form of face-to-face work and in the form of students' independent work.

During learning sessions in the discipline (module) face-to-face work includes: lecture-type classes, seminar-type classes and (or) group consultations, and (or) individual work of students with the teaching staff of the organization and (or) persons involved by the organization to implement the educational programs on other terms (including individual consultations).

Legend:

Lec – lectures, Lab – laboratory work, Pr – practical classes, ICW – individual face-to-face work, IW – independent work.

4.1. Content of the discipline (module)

Section name	The section's content	Formed competences	Competence achievement indicator
Application of low voltage direct current. Galvanization. Drug electrophoresis.	Application of low voltage direct current. Galvanization. Drug electrophoresis.		
Low and medium frequency pulsed currents.	Low and medium frequency pulsed currents. High frequency alternating currents. Electric and electromagnetic fields.		
	Study of the physical characteristics and physiological effects of		

	high frequency alternating current, electric and electromagnetic fields and high voltage direct electric fields.		
High frequency alternating current. Electric and electromagnetic fields.	High frequency alternating current. Electric and electromagnetic fields. Indications and contraindications for use in dentistry. Methods of application.		
Light therapy.	Light therapy.		
Vibration. Ultrasonic therapy.	Vibration. Ultrasonic therapy.		
	Ultrasound therapy. An introduction to the physical characteristics and physiological effects of ultrasound.		
Ion and aerosol therapy. Ozone therapy. Application of heat and cold for therapeutic purposes.	Ion and aerosol therapy. Ozone therapy. Application of heat and cold for therapeutic purposes.		
Irrigotherapy.	Irrigotherapy.		
Personal contact work	Personal contact work (credit)		

4.2. Scope of the discipline and types of academic work

Forms of control and types of academic work		Labor intensity of the discipline (module)	
		6	total
1. Face-to-face work:		32,2	32,2
In-class learning in total, including:		32	32
Лабораторные занятия (Лаб)		32	32
Индивидуальная контактная работа (ИКР)		0,2	0,2
2. Independent work of the student:		39,8	39,8
3. Intermediate certification (exam) (зачет)		3а	3а
Total:	academic hours	72	72
	credit units	2	2

№ item	The section's (theme's) name	Face-to face work, including in the electronic information and educational environment, academic hours				IW, academic hours	Total, academic hours
		Lect.	Pr.	Lab.	ICW		
	Application of low voltage direct current. Galvanization. Drug electrophoresis.						
1	Application of low voltage direct current. Galvanization. Drug electrophoresis.			6		8	14
	Low and medium frequency pulsed currents.						
2	Low and medium frequency pulsed currents. High frequency alternating currents. Electric and electromagnetic fields.			2		2	4
3	Study of the physical characteristics and physiological effects of high frequency alternating current, electric and electromagnetic fields and high voltage direct electric fields.			4		4	8
	High frequency alternating current. Electric and electromagnetic fields.						
4	High frequency alternating current. Electric and electromagnetic fields. Indications and contraindications for use in dentistry. Methods of application.			6		8	14
	Light therapy.						
5	Light therapy.			4		6	10
	Vibration. Ultrasonic therapy.						
6	Vibration. Ultrasonic therapy.			2		2	4
7	Ultrasound therapy. An introduction to the physical characteristics and physiological effects of ultrasound.			2		2	4

	Ion and aerosol therapy. Ozone therapy. Application of heat and cold for therapeutic purposes. Irrigotherapy.						
8	Ion and aerosol therapy. Ozone therapy. Application of heat and cold for therapeutic purposes. Irrigotherapy.			6		7,8	13,8
	Personal contact work						
9	Personal contact work (credit)				0,2		0,2
Total academic hours				32	0,2	39,8	72

4.3. Summary of the discipline (module), structured by sections (topics)

Раздел 1. Application of low voltage direct current. Galvanization. Drug electrophoresis.

Тема 1. Application of low voltage direct current. Galvanization. Drug electrophoresis.

Лабораторное занятие. Application of low voltage direct current.

Galvanization.

Drug electrophoresis.

Лабораторное занятие. Medicinal electrophoresis.

Indications and contraindications for use in dentistry.

Methodology.

Лабораторное занятие. Transcanal direct current treatment.

Principles of operation of physiotherapy equipment used in dentistry

Раздел 2. Low and medium frequency pulsed currents.

Тема 2. Low and medium frequency pulsed currents. High frequency alternating currents. Electric and electromagnetic fields.

Лабораторное занятие. Low and medium frequency pulsed currents.

Indications and contraindications for use in dentistry.

Methods of application.

Тема 3. Study of the physical characteristics and physiological effects of high frequency alternating current, electric and electromagnetic fields and high voltage direct electric fields.

Лабораторное занятие. Electroodontodiagnostics, electrostimulation, electrosleep, diadynamic therapy.

Indications and contraindications for use in dentistry.

Methodology.

Лабораторное занятие. Short-pulse electroanalgesia, amplipulse therapy, fluoroisation, interference therapy.

Indications and contraindications for use in dentistry.

Methodology.

Раздел 3. High frequency alternating current. Electric and electromagnetic fields.

Тема 4. High frequency alternating current. Electric and electromagnetic fields.

Indications and contraindications for use in dentistry. Methods of application.

Лабораторное занятие. High frequency alternating current.

Electric and electromagnetic fields.

Indications and contraindications for use in dentistry.

Methods of application.

Лабораторное занятие. Ultrasonotherapy, darsonvalisation, diathermocoagulation, UHF therapy, micro-wave therapy.

Indications and contraindications for use in dentistry.

Methods of application.

Лабораторное занятие. EHF therapy, magnetotherapy, franklinisation.

Indications and contraindications for use in dentistry.

Methods of application.

Раздел 4. Light therapy.

Тема 5. Light therapy.

Лабораторное занятие. Laser therapy.

Physical characteristics.

Mechanism of action.

Technique and technique of application.

Indications and contraindications for use in dentistry.

Лабораторное занятие. Study of the physical characteristics and mechanism of the effects of visible light, infrared, ultraviolet and laser radiation on body tissues.

Раздел 5. Vibration. Ultrasonic therapy.

Тема 6. Vibration. Ultrasonic therapy.

Лабораторное занятие. Vibration.

Ultrasound therapy.

Indications and contraindications for use in dentistry.

Methodology.

Тема 7. Ultrasound therapy. An introduction to the physical characteristics and physiological effects of ultrasound.

Лабораторное занятие. Ultrasonic devices for removal of dental plaque - PYZON MASTER 400, PYZON MASTER 600, VECTOR.

Indications and contraindications for use in dentistry.

Methodology.

Раздел 6. Ion and aerosol therapy. Ozone therapy. Application of heat and cold for therapeutic purposes. Irrigotherapy.

Тема 8. Ion and aerosol therapy. Ozone therapy. Application of heat and cold for therapeutic purposes. Irrigotherapy.

Лабораторное занятие. Ion and aerosol therapy.

Ozone therapy.

Application of heat and cold for therapeutic purposes.

Irrigotherapy. Indications and contraindications for use in dentistry. Methods of treatment.

Лабораторное занятие. An introduction to the use of high and low temperatures and water in dentistry.

Study the indications and contraindications for prescription.

Learning how to apply hydrotherapy and heat therapy.

Лабораторное занятие. Irrigators. Indications and contraindications for use in dentistry.
Methodology.

5. Educational technologies

To implement the competence-based approach in the study of the discipline (module), extensive use of active and interactive methods of conducting classes in the educational process is provided:

The components of educational technology are the following:

lectures - for the presentation of new material, an interactive form of conducting a class is also used;

Practical sessions - during interactive sessions there is collective discussion and case studies and discussions.

laboratory classes;

multimedia tools (projectors) - to improve the quality of perception of the studied material;

supervised homework - to encourage students to work independently;

quizzes - for intermediate attestation and assessment of the degree of mastering of the studied material by the students.

6. Forms of control and types of evaluation materials for the discipline (module)

Intermediate attestation - evaluation of intermediate and final results of training in the discipline (module).

6.1. Sample list of questions for the credit test

1. Give the definition of 'Electric current'.
2. Define "Direct electric current".
3. Name the tissues of the body that have high electrical conductivity.
4. What makes living tissue able to conduct electric current?
5. State the purpose of the hydrophilic pad. Is a hydrophilic pad necessary in electroplating?
6. Is there a difference in the effect of different DC poles on tissue?
7. Define galvanisation.
8. Is drug electrophoresis a combination of effects?
9. What is appropriate to cover the carious cavity during root canal electrophoresis?
10. In case of tooth aggravation after canal filling (if there is swelling, hyperemia) it is advisable to apply.
11. state the general indications for conducting electrophoresis and electrophoresis with vitamin C solution.
12. In the treatment of non-carious lesions of hard tissues of the teeth prescribe?
13. Name the indications and contraindications for the appointment of direct continuous low frequency current.
14. Tell about the technique of galvanization procedures and treatment techniques used in dentistry.
15. Give the definition of depophoresis. Explain the mechanism of action. Indications and contraindications.
16. State the indications and contraindications for electrophoresis.

17. List the positively charged ions.
18. List positively charged ions.
19. What is the purpose of isolating the tooth from moisture when performing dephosphoresis?
20. What is the root canal lavage during dephosphoresis?
21. What are the advantages of pulsed current over continuous current?
22. Which physiotherapeutic techniques are related to pulse therapy?
23. Define electrosleep. Explain the mechanism of therapeutic action. Indications and contraindications for prescription.
24. What type of current is used during electrosleep?
25. Name the apparatus for conducting electrosleep. Describe the technique of the procedure.
26. What frequency is used for electrosleep?
27. Dyadinamotherapy - is it...?
28. Explain the mechanism of physiological and therapeutic action of diadynamometry
29. Name the types of low frequency pulsed current generated by diadynamometer machines.
30. Define "Amplipulse therapy". Describe mechanism of physiological and therapeutic action, indications and contraindications.
31. Who developed the interference method used in interference therapy?
32. Is interference therapy?
33. Tell us about mechanism of physiological and therapeutic effect, indications and anti-indications of interference therapy application.
34. Does the patient feel the effect of alternating current during interference therapy and how does it appear?
35. State indications for which fluctuators should be used and why?
36. Name the apparatus for fluctuorisation.
37. Electroodontometry is...?
38. What diagnosis corresponds to a pulp reaction of 15-20 μA ?
39. Give the definition of "Darsonvalisation". Explain the mechanism of therapeutic action. Indications and contraindications for prescription.
40. Name the apparatus for darsonvalisation. Explain the technique of the procedure.
41. Name the course of treatment and therapeutic doses when darsonvalisation is carried out.
42. Define the definition of darsonvalisation. Explain the mechanism of therapeutic action. Indications and contraindications for administration.
43. What is the exposure of diathermocoagulation in the method of vital extirpation?
44. Describe the method of diathermocoagulation in the treatment of pulpitis.
45. State the features of diathermocoagulation required in the treatment of apical periodontitis.
46. State the purpose of diathermocoagulation in the treatment of periodontal disease.
47. What is the physician's tactic for the treatment of complications following diathermocoagulation?
48. Give the definition of "UHF therapy." State the mechanism of therapeutic action. Indications and contraindications for prescription.
49. What power is used in UHF therapy.
50. UHF induction therapy. Physical characteristics of the factor. Mechanism of therapeutic action. Indications and contraindications for prescription. Dosing principles.

Equipment. Technique of the procedure. Safety when conducting procedures. Therapeutic techniques. Compatibility with other methods of physiotherapy. Registration of appointments.

51. Give definition of "UHF inductothermy". State the mechanism of therapeutic action.

Indications and contraindications for prescription.

52. Define microwave therapy. State the mechanism of therapeutic action. Indications and contraindications for use.

53. To what depth do centimetre and decimetre waves penetrate in microwave therapy?

54. What is the absorption of microwaves by the body?

55. Name the types of apparatuses for microwave therapy.

56. EHF is...?

57. Describe the physiological and therapeutic mechanisms of EHF therapy.

58. What kind of field is used in Franklinization? Tell us about the mechanism of its action on the body.

59. What is the definition of light therapy?

60. What is the definition of IR radiation?

61. What is the mechanism of action of IR radiation?

62. What is the depth of penetration of IR radiation?

63. What are the therapeutic effects of infrared radiation?

64. What is the definition of UV radiation?

65. Mechanism of action of UV radiation?

66. State the depth of penetration of UV radiation?

67. Therapeutic effects of UV radiation?

68. Apparatuses for administering UV radiation?

69. Technique and technique of UV radiation?

70. Course of treatment and doses of UV radiation?

71. Give a definition of laser therapy?

72. State the benefits of laser therapy?

73. What are the therapeutic effects of laser therapy?

74. Name the devices used to perform laser therapy?

75. What are the techniques of laser therapy?

76. Technique, course of treatment and doses in laser therapy?

77. What are the indications and contraindications for infrared radiation?

78. What are the indications and contraindications for UV radiation?

79. What are the indications and contraindications for laser treatment?

80. Antibacterial photodynamic therapy using HELBO 2075 F/THERALIBE therapeutic laser, indications, therapeutic effect?

81. Give definition of ultrasound therapy?

82. What are the 3 factors of ultrasound therapy on the human body?

83. Indications and contraindications of ultrasound therapy in dentistry?

84. Give definition of vacuum therapy?

85. Therapeutic effects of vacuum therapy?

86. Indications and contraindications for vacuum therapy?

87. Give a definition of massage?

88. Name the types of massage?

89. Indications and contraindications for massage in dentistry?

90. What is the definition of aeroion therapy?

91. What is the definition of aeroions?

92. Indications and contraindications for the use of aeroion therapy?

93. What is the definition of aerosol therapy?

94. What is the classification of aerosols according to dispersibility?

95. Indications and contraindications for the use of aerosol therapy?
 96. What is the definition of ozone therapy?
 97. What are the physiological and therapeutic effects of ozone?
 98. Define heat therapy?
 99. What is the mechanism of action of heat therapy?
 100. What is the definition of cryotherapy?
 101. Indications and contraindications for the use of cryotherapy?
 102. What is the definition of balneotherapy?
 103. Name the types of water treatments?
 104. What is the definition of galvanisation?
 105. What is the effect of galvanic current on the scalp tissues?
 106. Irrigators. Purpose, therapeutic effects?
 107. Oral hydrotherapy techniques?
 108. What is the definition of hydrotherapy?

6.2. Sample list of questions for the examination

There is no examination.

6.3. Suggested themes of term papers (projects)

There are no courseworks.

6.4. Suggested themes of term projects

There are no coursework projects.

6.5. Suggested topics of calculation and graphic works

There are no calculation and graphic works.

7. Educational, methodological, informational and software support of the discipline (module)

The electronic catalog and electronic information resources provided by the scientific library of the FSBEI of HE "I. N. Ulianov Chuvash State University" are available at the link <http://library.chuvsu.ru/>

7.1. Regulatory documents, standards and rules

7.2. Recommended basic educational and methodological literature

№ item	Name
1	

7.3. Recommended supplementary educational and methodological literature

№ item	Name
1	

7.4. List of resources of the "Internet" information and telecommunication network

№ item	Name	Link to the resource
1	Единое окно к образовательным ресурсам [Электронный ресурс]. – Режим доступа: http://window.edu.ru	http://window.edu.ru
2	Российская государственная библиотека [Электронный ресурс]. – Режим доступа: http://www.rsl.ru	http://www.rsl.ru

3	Российская национальная библиотека [Электронный ресурс]. – Режим доступа: http://www.nlr.ru	http://www.nlr.ru
4	Научная электронная библиотека «Киберленинка» [Электронный ресурс]. – Режим доступа: http://cyberleninka.ru	http://cyberleninka.ru

7.5. Software, professional databases, information and reference systems, electronic educational resources and electronic library systems

Software, professional databases, information and reference systems provided by the Informatization Department of the FSBEI of HE "I.N. Ulianov Chuvash State University" are available for download at the link <http://ui.chuvsu.ru> //. The Unified Register of Russian programs for electronic computers and databases, including freely distributed ones, is available at the link reestr.minsvyaz.ru/reestr /.

7.5.1. Licensed and freely distributed software

Microsoft Windows operating System and/or Unix-like operating system and/or mobile operating system;

Office software packages:

Microsoft Office and/or LibreOffice

and (or) OpenOffice and (or) analogues;

Browsers, including Yandex.Browser.

List of software:

OpenOffice 3.3.0

7.5.2. Lists of professional databases and (or) information reference systems and (or) electronic library systems and (or) electronic educational resources

Electronic library system IPRbooks

Electronic library system «Lan Publishing House»

Consultant of a Student. Student Electronic Library

8. Material and technical support of the discipline

Classrooms for lecture-type classes in the discipline are equipped with a teacher's automated workplace consisting of: a personal computer/laptop, multimedia equipment with a screen and (or) SMART interactive whiteboard/SMART TV.

The premises for students' independent work are equipped with computer equipment enabling to connect to the Internet and provide access to the electronic information and educational environment of the FSBEI of HE "I.N. Ulianov Chuvash State University".

№ item	Lesson type	Brief description and characteristics of the composition of installations, measuring and diagnostic equipment, computer equipment and experimental automation tools
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1	Зачёт	Учебная аудитория для занятий семинарского типа, текущего контроля и промежуточной аттестации. Оборудование: учебная доска, учебная мебель, переносное мультимедийное оборудование (проектор, экран, персональный компьютер или ноутбук с необходимым программным обеспечением для тематических иллюстраций и демонстраций, соответствующих программе дисциплины), лабораторные стенды
2	Лаб	Учебная аудитория для занятий семинарского типа, текущего контроля и промежуточной аттестации. Оборудование: учебная доска, учебная мебель, переносное мультимедийное оборудование (проектор, экран, персональный компьютер или ноутбук с необходимым программным обеспечением для тематических иллюстраций и демонстраций, соответствующих программе дисциплины), лабораторные стенды
3	Ср	Учебная аудитория для занятий семинарского типа, текущего контроля и промежуточной аттестации. Оборудование: учебная доска, учебная мебель, переносное мультимедийное оборудование (проектор, экран, персональный компьютер или ноутбук с необходимым программным обеспечением для тематических иллюстраций и демонстраций, соответствующих программе дисциплины), лабораторные стенды

9. Means of adapting the discipline teaching to the needs of persons with physical conditions

If necessary, persons with physical conditions can be offered one of the following options for perceiving information, taking into account their individual psychophysical characteristics:

- 1) using e-learning and distance learning technologies.
- 2) using special equipment (enginery) and software in accordance with the students' health restrictions in the Training Centers for Persons with Disabilities and Physical Conditions (hereinafter referred to as special needs) available at the university.

In the course of training, if necessary, the following conditions are provided for persons with visual, hearing and musculoskeletal disorders:

- for persons with visual impairments: educational and methodological materials in printed form in enlarged font; in the form of an electronic document; in the form of an audio file (conversion of educational materials into audio format); in printed form in Braille; individual consultations involving a tactile interpreter; individual assignments and consultations.
- for people with hearing impairments: educational and methodological materials in printed form; in the form of an electronic document; video materials with subtitles; individual consultations involving a sign language interpreter; individual assignments and consultations.
- for persons with disorders of the musculoskeletal system: educational and methodological materials in printed form; in the form of an electronic document; in the form of an audio file; individual assignments and consultations.

10. Guidelines for students to perform independent work

The purpose of the student's independent work (IW) is to consolidate the theoretical knowledge gained and to acquire practical skills in using and performing research of algorithms and data structures when designing application software programs. IW includes independent study of educational issues, preparation for laboratory classes, performing calculation and graphic work, preparation for a test and an exam.

The list of questions and tasks for independent work to prepare for laboratory classes is given in the corresponding methodological instructive regulations in the description of each laboratory work.

The list of questions and tasks for independent work to carry out calculation and graphic work is given in the relevant methodological instructive regulations.

Independent work of students is an integral part of the educational process. The purpose of independent work of students is to master fundamental knowledge, professional skills, experience in creative, research activities.

The main forms of organizing independent work of students are: classroom independent work under the guidance and supervision of a teacher (at lectures, laboratory classes, etc. and consultations); extracurricular independent work under the guidance and supervision of a teacher (during consultations, during research work), extracurricular independent work - planned educational, research, research work of students, performed during extracurricular time on the assignment and with the methodical guidance of the teacher, but without his direct participation.

Students, when performing independent work, should rely mainly on the knowledge and skills acquired during lectures and laboratory classes. This provides the necessary basis for further in-depth study of other disciplines. However, this knowledge needs to be activated.

The forms of independent work of students provided by the discipline "Physiotherapy in dentistry" include:

- Preparation for laboratory classes.
- Independent study of educational issues.
- Preparation for the test.

The following sources are recommended for independent preparation for laboratory classes, study of educational issues, preparation for the test:

- lecture notes and materials of practical, laboratory, group and individual classes;
- educational (scientific) literature of the relevant profile;
- Internet resources.

At the beginning of the course, the teacher informs students about the forms, types and content of independent work, explains the requirements for the results of independent work, as well as forms and methods of control and evaluation criteria.

According to the questions proposed by the teacher, the student studies the content of recommended sections, chapters, paragraphs, textbooks, textbooks and monographs; statistical collections; reviews; articles in periodicals. The forms of control of such individual work are surveys in laboratory classes, checking notes, conclusions.

Individual creative tasks involve:

- preparation of analytical individual work on the topic proposed by the teacher. The completed task is evaluated taking into account the quality of the analysis, identification of factors, causes, conditions of changes, trends; justifying conclusions; proposals put forward by the author;

- preparation for a discussion, a business game, etc.;
- a critical review of articles from the list recommended by the teacher, etc.

Test tasks are a form of ongoing control. They are designed to highlight the main provisions of the discipline, to understand the features based on theory, to repeat and

consolidate the educational material, to test knowledge, to control residual knowledge.

The topics submitted for independent study, students need to take notes. The summary summarizes the main essence of the educational material, provides the necessary tabular data, diagrams.

The main stages of self-study of educational issues:

1. Initial acquaintance with the material of the topic under study according to the text of the textbook.
2. Highlighting the main thing in the studied material, compiling the usual short notes.
3. Selection of reference signals for this text in the form of separate words, drawings.
4. Thinking over a schematic way of coding knowledge, using a different font, etc.
5. Drawing up a reference summary.

11. Methodological instructive regulations for students studying the discipline (module)

Starting to master the discipline "Physiotherapy in dentistry", it is necessary first of all to familiarize yourself with the content of the work program of the discipline (hereinafter referred to as the RAP).

Lectures are intended to give a systematic basis of scientific knowledge.

When studying and working out theoretical material, it is necessary to:

- repeat the material outlined in the lecture lesson and supplement it with the recommended literature on this topic;
- when studying a theoretical topic independently, make a summary using the literature sources recommended in the RAP.
- when preparing for the current and intermediate control, use the materials of the FOS.

Working with educational and methodological and scientific literature is one of the important forms of work on the development of the discipline and is necessary in preparation for an oral survey in seminar-type classes, for control works, testing, and offsetting. It includes the study of lecture material – the study of recommended sources and literature on the subject of lectures. The lecture summary should contain an abstract record of the main questions of the lecture, the schemes proposed by the teacher (when they are demonstrated), the main sources and literature on the topics, conclusions on each issue. The summary should be made in a separate notebook on the discipline. It should be neat, easy to read, and not contain irrelevant information or drawings.

Abstracts of scientific literature in preparation for classes should also be carried out carefully, contain answers to each question posed in the topic, have a link to the source of information with mandatory indication of the author, title and year of publication of the scientific literature used. The summary can be a reference (contain only the main key positions), but at the same time it allows you to give a complete answer to the question, it can be detailed. The volume of the abstract is determined by the student himself.

In the process of working with educational and scientific literature, the student can:

- make notes as you read in the form of a simple or detailed plan (create a list of the main issues discussed in the source);
- make abstracts (quoting the most important parts of an article or monograph, a short summary of the author's main thoughts);
- prepare annotations (a brief summary of the main issues of the work);
- create abstracts (detailed abstracts that).

Work with literature should begin with an analysis of the RAP, which lists the main and additional literature, educational and methodological publications necessary for mastering the discipline and working in seminar-type classes.

After selecting the desired source, you should find the section of interest by the table of contents or alphabetical index, as well as the section of the lecture notes or textbook of the same name. In case of difficulties in understanding the educational material, you should turn

to other sources where the presentation may be more accessible. It should be noted that working with literature is not only useful as a means of deeper study of any discipline (module), but is also an integral part of the professional activity of a future graduate.

11.1. Methodological instructive regulations for preparing for seminar-type classes

Laboratory work is one of the forms of mastering theoretical material with the simultaneous formation of practical skills in the discipline being studied.

The purpose of laboratory work is to deepen the study of theoretical material, the formation of practical skills through regular and systematic independent work of students throughout the course. The process of preparation for laboratory work includes the study of regulatory documents, mandatory and additional literature on the issue under consideration. Direct laboratory work involves:

- study of theoretical material on the topic of laboratory work (on the issues of the topic under study);
- performing the necessary calculations and experiments;
- preparation of a report with filling in the necessary tables, plotting, drawing conclusions on the experiments and theoretical calculations;
- control is carried out for each laboratory work: the content of the report is checked, the assimilation of theoretical material is checked. The control of the assimilation of theoretical material is individual.

11.2. Methodological instructive regulations for preparing for an examination

There is no examination.

11.3. Methodological instructive regulations for preparing for a test

Preparation of students for passing the test includes:

- viewing the program of the training course;
- identification of the sources necessary for the preparation (textbooks, additional literature, Internet resources, etc.) and their study;
- use of lecture notes, materials of practical classes;
- consulting with a teacher.

Preparation for the test begins with the first lesson in the discipline, at which students receive a general teacher's attitude and a list of basic requirements for current and final reporting. At the same time, it is important to systematically master the material from the very beginning, guided, first of all, by the list of questions for the test, to take notes of sources important for solving educational tasks.

A student who has completed in full the tasks provided for in the work program of the discipline (module) is allowed to take credit. In case of missing any types of training sessions for valid or disrespectful reasons, the student independently performs and submits for verification in writing general or individual tasks determined by the teacher. The test for the theoretical course takes place orally or in writing (determined by the teacher) on the basis of a list of questions that reflect the content of the current work program of the discipline. Students are recommended to:

- prepare for the test by carefully reading the questions for the test;
- make a plan of the answer to each question, highlighting the key points of the material;
- after studying a few questions, discuss them with classmates.

The answer must be reasoned. The results of the tests are evaluated by the mark "credited" or "not credited".

11.4. Methodological instructive regulations for performing computational and graphical

There are no calculation and graphic works.

11.5. Methodological instructive regulations for performing a control work

Evaluation criteria for control questions:

The grade "excellent" is given if the student has shown a deep and complete knowledge of the material of the discipline, assimilation of the main and additional literature recommended by the work program of the discipline.

The grades "good" are given to the student who has shown full knowledge of the basic material of the discipline, knowledge of the main literature and familiarity with the additional literature recommended by the work program.

Grades "satisfactory" are given if the student did not show knowledge of the main provisions on the topic, made some errors and managed to eliminate them with the help of a teacher who is familiar with the main literature on the subject.

The assessment is "unsatisfactory", the answer revealed significant gaps in the knowledge of the main provisions of the discipline, the inability of the student, even with the help of a teacher, to formulate correct answers to questions.

11.6. Methodological instructive regulations for performing a course work (project)

There are no coursework projects.

List of additions and changes

The name and details (if any) of the document attached to the Working Program of the discipline (module) containing the text of updates	Department's decision		Full name of department head:
	Date	Protocol №	