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 normal and topographic anatomy with operative surgery

«APPROVE»
Vice-rector for Academic Affairs

_____ I.E. Poverinov

«_13_» _04_____ 2022

Working programs of the discipline (module) «Топографическая анатомия и оперативная хирургия головы и шеи / Topographic Anatomy and Operative Surgery of the Head and Neck»

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

Cheboksary - 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:
docent, candidate of medical sciences A.I. Shornikov

The working program was approved at the meeting of the Department of normal and topographic Anatomy with operative Surgery,
25.03.2022, protocol № 7
Head of the department G.Yu. Struchko

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 - anatomical and surgical training of students necessary for subsequent classes at clinical departments, primarily surgical, and in independent medical activity; formation of students' knowledge of topographic anatomy of regions, organs and systems, taking into account individual variability of organs, vessels, nerves; formation of students' skills to apply the acquired topographic and anatomical knowledge to substantiate the diagnosis, explain the peculiarities of the course of pathological processes, solve diagnostic and surgical tasks; mastering elementary surgical actions and some typical surgical techniques by students.

The objectives of the discipline - • acquisition by students of theoretical knowledge of morphology, functions and topography of individual organs and organ systems of the human body, taking into account their pre- and postnatal development, anatomical and topographic relationships of organs;

• consideration of individual, sexual and age-related features of the structure of organs, systems and the body as a whole, variants of variability of individual organs, variations and anomalies of their development;

• to provide targeted knowledge on borderline, orientation, layer-by-layer, systemic, projection, syntopic, skeletotopic, typical and variant anatomy in the age aspect within the studied area, paying special attention to the features of childhood;

• to acquaint with surgical instruments and to give primary skills of possession of them;

• to provide knowledge about surgical interventions, their stages, the choice of a rational approach and operative reception for practical work, ranging from simple (primary wound treatment, stopping bleeding, puncture of cavities, suturing, performing incisions) to complex (suturing, resection, amputation and plastic surgery;

• provide primary skills for performing individual surgical interventions.

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

The discipline «Топографическая анатомия и оперативная хирургия головы и шеи / Topographic Anatomy and Operative Surgery of the Head and Neck» относится к обязательной части учебного плана 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):

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:

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)
ОПК-9 Способен оценивать морфофункциональные, физиологические состояния и патологические процессы в организме человека для решения профессиональных задач / He/she is able to evaluate morphofunctional, physiological states and pathological processes in the human body to solve professional problems	ОПК-9.1 Способен распознавать морфофункциональные, физиологические состояния и патологические процессы в организме человека / He/she is able to recognize morphofunctional, physiological states and pathological processes in the human body	To know: anatomy and topography of organs, details of their structure and main functions, age-sex and individual characteristics; detailed structure, topography and functions of the organs of the head and neck, their blood supply and innervation; variants and anomalies of the development of the organs of the head and neck; projection of organs, large vessels on the surface of the body Be able to: find and show organs, parts, structure, large vessels and nerves on a corpse or individual preparations; find and demonstrate on preparations the detailed structure of the organs of the head and neck, vessels, nerves, probe the main groups of lymph nodes of the head and neck, correctly call them in Russian and Latin; determine the points pulsation and possible compression of the arteries To possess: to determine by external signs the constitutional type of a person (brachy, meso- or dolichomorphic, to identify disproportions of body parts, deformities, visually detectable developmental anomalies; to palpate the bone landmarks of the body
ОПК-9 Способен оценивать морфофункциональные, физиологические состояния и патологические процессы в организме человека для решения профессиональных задач / He/she is able to evaluate morphofunctional, physiological states and pathological processes in the human body to solve professional problems	ОПК-9.2 Способен анализировать морфофункциональные, физиологические состояния и патологические процессы в организме человека / He/she is able to analyze morphofunctional, physiological states and pathological processes in the human body	To know: anatomical terms in accordance with the International Anatomical Nomenclature; the laws of the structure of the human body as a whole, anatomical and functional relationships of individual parts of the body with each other Be able to: using the acquired knowledge about the structure, topography of organs, their systems and devices, the body as a whole, clearly navigate the complex structure of the human body; determine the location and

		projection of organs and their parts on the surface of the body; analyze educational and scientific literature, Internet resources containing information on topographic anatomy and operative surgery Possess: medical-anatomical conceptual apparatus; use general and some special surgical instruments; perform separate surgical techniques and operations on biological educational material (human corpse) and experimental animals
ОПК-9 Способен оценивать морфофункциональные, физиологические состояния и патологические процессы в организме человека для решения профессиональных задач / He/she is able to evaluate morphofunctional, physiological states and pathological processes in the human body to solve professional problems	ОПК-9.3 Способен диагностировать морфофункциональные, физиологические состояния и патологические процессы организма человека / He/she is able to diagnose morphofunctional, physiological states and pathological processes in the human body	To know: age-sex and individual features of the topography and structure of organs, systems and the body as a whole Be able to: show on images obtained by various imaging methods (X-rays, computer and magnetic resonance tomograms, etc.) the organs of the head and neck, their parts and details of the structure; process and link together the morphological data obtained Possess: topographic-anatomical and craniometric methods of examination of the organs of the head and neck

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
Introduction.	Introduction to topographic anatomy. History. Research methods. Surgical operations and its stages.	ОПК-9	ОПК-9.1, ОПК-9.2, ОПК-9.3
Topographic anatomy and operative head surgery	Topographic anatomy and operative surgery of the head.		
Topographic anatomy and operative neck surgery	Topographic anatomy and operative neck surgery		
Transplantology, its problems and possible solutions	Transplantology, its problems and possible solutions		
Test	Test		

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:		48,2	48,2
In-class learning in total, including:		48	48
Лекционные занятия (Лек)		16	16,2
Лабораторные занятия (Лаб)		32	32
Индивидуальная контактная работа (ИКР)		0,2	
2. Independent work of the student:		23,8	23,8
3. Intermediate certification (exam) (зачет)		Зa	Зa
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		
	Introduction.						
1	Introduction to topographic anatomy. History. Research methods. Surgical operations and its stages.	2		4		2,8	8,8
	Topographic anatomy and operative head surgery						
2	Topographic anatomy and operative surgery of the head.	8		16		15	39
	Topographic anatomy and operative neck surgery						
3	Topographic anatomy and operative neck surgery	6		10		6	22
	Transplantology, its problems and possible solutions						
4	Transplantology, its problems and possible solutions			2			2
	Test						
5	Test	0,2					0,2
Total academic hours		16,2		32		23,8	72

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

Раздел 1. Introduction.

Тема 1. Introduction to topographic anatomy. History. Research methods. Surgical operations and its stages.

Лекционное занятие. 1. About the Department of Normal and Topographic Anatomy of the Medical Faculty of the Chuvash State University.

2. The history of operative surgery and topographic anatomy, the merits of N.I. Pirogov in its origin, the contribution of domestic scientists to its development.

3. Methods of studying topographic anatomy and operative surgery.

4. Types of topographic anatomy: regional, landmark, borderline, projection, layered, systemic, syntopic, skeletotopic and their content.

5. Surgical operations and its stages (operative access, operative reception of sutures on the wound). Examples of operational access. Types of surgical reception (suture, puncture, incision, fistula, fistula, removal of a part and a whole organ).

6. Classification and types of surgical operations.

7. Technique of surgical treatment of wounds.

Лабораторное занятие. The history of the development of topographic anatomy and operative surgery. Research methods. Surgical operations and its stages.

Лабораторное занятие. The main elements of operational equipment. Surgical instruments. Surgical treatment of wounds. Operations on vessels and nerves.

Раздел 2. Topographic anatomy and operative head surgery

Тема 2. Topographic anatomy and operative surgery of the head.

Лекционное занятие. Topographic anatomy and operative surgery of the cerebral part of the head.

Лекционное занятие. Topographic anatomy and operative surgery of the facial part of the head.

Лекционное занятие. Types and methods of anesthesia. Anesthesia, regional anesthesia

Лекционное занятие. Surgical interventions on the maxillary segments. Individual characteristics and age-related changes of the dental system. Anatomical problems of dental prosthetics. Traumatic injuries in the maxillofacial region. Surgical methods of fracture treatment.

Лабораторное занятие. Topographic anatomy and operative surgery
the cerebral part of the head. Modern high-tech methods of surgical treatment of cerebrovascular pathology

Лабораторное занятие. Topographic anatomy and operative surgery
the facial part of the head. Operative surgery of salivary glands and ducts. Reduction of dislocation of the lower jaw.

Лабораторное занятие. Types and methods of anesthesia. Anesthesia, regional anesthesia

Лабораторное занятие. Topographic and anatomical justification of local and conductive anesthesia during dental operations. Working out the technique of anesthesia.

Лабораторное занятие. Clinical anatomy of fascia and cellular spaces of the head. Anatomical ways of spreading purulent congestion.

Лабораторное занятие. Operations on the facial part of the head. Surgical treatment of wounds in the maxillofacial region. Working out the technique of applying and removing nodular skin sutures.

Лабораторное занятие. Operations on the maxillary segments. Traumatic injuries. Surgical methods of fracture treatment.

Лабораторное занятие. Surgical interventions for facial malformations. Operations on the external nose, nasal septum and paranasal sinuses

Раздел 3. Topographic anatomy and operative neck surgery
Тема 3. Topographic anatomy and operative neck surgery

Лекционное занятие. Topographic anatomy of the neck. Clinical anatomy of cellular spaces and cellular slits of the neck.

Лекционное занятие. Operative neck surgery. Novocaine blockades. Surgical care for violations of the patency of the respiratory tract.Modern operating technologies and equipment

Лекционное занятие. Operations for purulent-inflammatory diseases of the neck.Anatomical ways of spreading purulent congestion into the mediastinum.Fundamentals of X-ray endovascular surgery.

Лабораторное занятие. Topographic anatomy of the neck. Clinical anatomy of cellular spaces and cellular slits of the neck.

Лабораторное занятие. Surgical care for violations of the patency of the respiratory tract. Modern operating technologies and equipment.

Лабораторное занятие. Congenital malformations of the neck. Surgical interventions for malformations of the neck

Лабораторное занятие. Operations for purulent-inflammatory diseases of the neck.Anatomical ways of spreading purulent congestion into the mediastinum. Fundamentals of X-ray endovascular surgery.

Лабораторное занятие. Neck surgery. Novocaine blockades. Operations on the vessels of the neck and thyroid gland.

Раздел 4. Transplantology, its problems and possible solutions
Тема 4. Transplantology, its problems and possible solutions

Лабораторное занятие. Transplantology, its problems and possible solutions. Skin grafting. Plastic surgery

Раздел 5. Test
Тема 5. Test

Лекционное занятие. Зачет

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 constituent elements of educational technologies are:

lectures – an interactive form of the lesson is also used to present new material;

laboratory classes are conducted in specially equipped classrooms using topographic and anatomical preparations, models and tables;

the use of multimedia tools (electronic whiteboards, projectors) – to improve the quality of perception of the studied material;

supervised homework – to encourage students to work independently.

When teaching students in accordance with the requirements of the Federal State Educational Standard, various educational technologies are used aimed at the formation of competencies that a graduate should have in the specialty "Medical Business". The share of lectures on topographic anatomy and operative surgery accounts for 32.7% of all auditory classes. The topics of lectures precede the topics of practical classes. Lectures are read by professors and associate professors of the department, accompanied by multimedia presentations using interactive elements in slides, fragments of educational films. For lectures, the department has a multimedia projector, a set of slides prepared by lecturers on all sections and topics of the discipline.

Laboratory classes are held in classrooms equipped with anatomical dissecting tables with the mandatory use of dry and wet, as well as plasticized natural anatomical preparations. In addition, models, tables and diagrams are used. Part of the classes is held in the anatomical museum of the department, where more than 1000 natural preparations are presented in all sections of anatomy.

When constructing a laboratory lesson, the teacher should adhere to the following plan:

1) The organizational stage of the lesson (time – up to 2%):

a) checking the presence of students in the class according to the list;

b) motivation of the topic of this practical lesson;

c) familiarization of students with the objectives and lesson plan;

2) Control and correction of the level of knowledge on the previous topic (time – up to 20%):

a) oral survey on drugs;

b) test control of current knowledge or solving situational problems;

3) The stage of demonstration by the teacher of drugs on the topic of the lesson (time – up to 15%);

4) The stage of independent work of students on drugs and analysis of operations under the supervision of a teacher (time – up to 45%);

5) The final stage of the lesson (time – up to 10%):

a) final control of the formed theoretical knowledge, skills and abilities, including by solving situational problems;

b) summing up the results of the practical lesson (the teacher's description of the student's fulfillment of all the objectives of the lesson, correction of errors);

c) familiarization of students with homework and requirements for it.

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. The subject and tasks of topographic anatomy and operative surgery.
2. The history of the development of topographic anatomy and operative surgery
3. N.I. Pirogov is the founder of topographic anatomy, an outstanding surgeon, teacher, public figure.
4. The doctrine of individual anatomical variability.
5. Age and sex features of the structure and topography of organs and systems. The concept of "norms" in topographic anatomy.
6. Surgical operation. Classification. Stages of execution. Characteristics of objective criteria for operational access.
7. General surgical instruments. Rules for using it.
8. Suture material. Types of surgical sutures and knots used in surgery. Features of sutures used in children.

Head

9. Topographic anatomy of the frontal-parietal-occipital region.
10. Principles of primary surgical treatment of craniocerebral wounds.
11. Topographic anatomy of the temporal region.
12. Topographic anatomy of the parotid-masticatory region. Incisions for mumps.
13. Topographic anatomy of the buccal region.
14. Topographic anatomy of the deep area of the face.
15. Topographic anatomy of the mastoid region.
16. Cranial index, clinical significance.
17. Facial fascia. Near-pharyngeal cellular spaces. Their connection with other cellular spaces.
18. Incisions during the opening of pharyngeal abscesses and phlegmon.
19. The cellular space of the bottom of the oral cavity and the fat lump of the cheek, their connection with other cellular spaces.
20. Decompression and bone-plastic trepanation of the skull.
21. Malformations of the facial part of the head. Principles of surgical treatment.
22. Anesthesia: types, techniques.
23. Topographic anatomical features of anesthesia on the upper and lower jaws.
24. Tooth and root extraction operations. Special tools.
25. Tooth-preserving operations (resection, amputation, hemisection of the root).
26. Odontogenic cysts of the jaw, topographic anatomical features, methods of surgical treatment.
27. Surgical methods of treatment of fractures of the upper and lower jaws.
28. Puncture and opening of the maxillary sinus by Caldwell-Luke.
29. Opening of the frontal sinus according to the Killian method.

Neck

30. Neck. Division into regions. Fascia and cellular spaces of the neck.
31. Incisions in submandibular, previsceral and retrovisceral phlegmon of the neck.
32. Topographic anatomy of the supra-lingual region.
33. Topographic anatomy of the sublingual region. Topography of the neck organs.
34. Topography of the sternocleidomastoid region and the carotid triangle.
35. Cervical vagosympathetic blockade according to A.V. Vishnevsky.
36. Blockade of the brachial plexus by Kulenkamf.
37. Topographic anatomy of the stair-vertebral triangle, the pre-lumbar and inter-lumbar spaces of the neck.
38. Topographic anatomy of the lateral triangle of the neck.
39. Ligation of the lingual artery

40. Operations for congenital cysts and fistulas of the neck.

41. Subtotal subfascial resection of the thyroid gland according to O.V. Nikolaev.

42. Tracheostomy, varieties.

43. Modern methods of surgical care for acute asphyxia.

44. Congenital malformations of the neck (median and lateral cysts and fistulas, muscular torticollis). Principles of surgical treatment.

Chest

45. Topographic anatomy of the chest wall and breast.

46. Principles of surgical treatment of purulent mastitis.

47. Topographic anatomy of the pleura and lungs.

48. Puncture and drainage of the pleural cavity.

49. Topographic anatomy of vessels and nerves of the anterior mediastinum.

50. Topographic anatomy of the posterior mediastinum.

51. Topographic anatomy of the pericardium and heart. Puncture of the pericardium.

52. Access to the lungs and mediastinal organs.

53. Principles of surgical treatment of penetrating chest wounds.

54. Suturing of lung and heart wounds.

55. Pulmonectomy. Principles of lobectomy and segmentectomy.

56. Principles of surgical treatment of coronary heart disease.

57. Modern high-tech methods of treatment of coronary heart disease.

58. Congenital heart defects and major vessels (open ductus arteriosus, aortic coarctation, tetrad of Fallot).

59. Principles of surgical treatment of congenital heart defects and major vessels.

60. X-ray endovascular methods of treatment of heart defects and major vessels.

6.2. Sample list of questions for the examination

The exam is not provided.

6.3. Suggested themes of term papers (projects)

Term papers are not provided.

6.4. Suggested themes of term projects

Course projects are not provided.

6.5. Suggested topics of calculation and graphic works

Calculation and graphic works are not provided.

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

1. Charter of FSBEI HE "Chuvash State University named after I.N. Ulyanov" dated December 27, 2018

2. The order of organization and implementation of educational activities for educational programs of higher education - undergraduate programs, specialist's programs, master's programs

3. Regulations on the organization and implementation of educational activities in educational programs of higher education - bachelor's programs, specialist's programs, master's programs in the federal state budgetary educational institution of higher education "Chuvash State University named after I.N. Ulyanov"

4. Regulations on the contact work of students with teaching staff and (or) persons involved in the implementation of educational programs on other terms in the Federal State Budgetary Educational Institution of Higher Education "Chuvash State University named after I.N. Ulyanov"

5. Regulations on the mode of employment of students in the Federal State Budgetary Educational Institution of Higher Education "Chuvash State University named after I.N. Ulyanov"

6. Regulations on the development and content of the work programs of disciplines in the Federal State Budgetary Educational Institution of Higher Education "Chuvash State University named after I.N. Ulyanov"

7. Regulations on the formation of evaluation materials (assessment funds fund) for conducting intermediate certification of students in the academic discipline at the Federal State Budgetary Educational Institution of Higher Education "Chuvash State University named after I.N. Ulyanov"

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	Литература по разделам медицины. Текст: электронный // Медицинская библиотека (сайт). - URL: https://meduniver.com/ (дата обращения 14.06.2019)	https://meduniver.com
2	Медицинская литература. Текст: электронный // Российская государственная библиотека (сайт). - URL: https://www.rsl.ru/ (дата обращения 14.06.2019)	https://www.rsl.ru/

3	Медицинская литература. Текст: электронный // Научная библиотека ЧувГУ (сайт). - URL: http://library.chuvsu.ru/ (дата обращения 14.06.2019)	http://library.chuvsu.ru
4	Баженов, Д. В. Анатомия головы и шеи. Введение в клиническую анатомию / Баженов Д. В. , Калиниченко В. М. - Москва : ГЭОТАР-Медиа, 2014. - 464 с. - ISBN 978-5-9704-3098-9. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : https://www.studentlibrary.ru/book/ISBN9785970430989.html (дата обращения: 20.01.2021). - Режим доступа : по подписке.	https://www.studentlibrary.ru/ru/book/ISBN9785970430989.html
5	Шилкин, В. В. Анатомия по Пирогову (Атлас анатомии человека). В трех томах. Т. 2. Голова. Шея / В. В. Шилкин, В. И. Филимонов - Москва : ГЭОТАР- Медиа, 2013. - 736 с. - ISBN 978-5-9704- 2364-6. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : https://www.studentlibrary.ru/book/ISBN9785970423646.html (дата обращения: 20.01.2021). - Режим доступа : по подписке.	https://www.studentlibrary.ru/ru/book/ISBN9785970423646.html
6	Трансплантология и искусственные органы [Электронный ресурс] : учебник / С. В. Готье, О. Е. Гичкун, С. В. Головинский и др. - М. : Лаборатория знаний, 2018. - 322 с. - Режим доступа: https://www.books-up.ru/ru/book/transplantologiya-iiskusstvennye-organy-6474103/	https://www.books-up.ru/ru/book/transplantologiya-iiskusstvennye-organy-6474103/

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:

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

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
1		Учебная аудитория для занятий семинарского типа, текущего контроля и промежуточной аттестации. Оборудование: учебная доска, учебная мебель, переносное мультимедийное оборудование (проектор, экран, ноутбук), манекен, скелет, анатомический стол, ванна, каталка
2		Помещение для самостоятельной работы обучающихся. Оборудование: компьютерная техника с подключением к сети Интернет и доступом к электронной информационно-образовательной среде ФГБОУ ВО «Чувашский государственный университет имени И.Н. Ульянова»
3	Лек	Учебные аудитории для занятий лекционного типа, семинарского типа. Оборудование: учебная доска, учебная мебель, мультимедийное оборудование (проектор, экран, персональный компьютер или ноутбук с необходимым программным обеспечением для тематических иллюстраций и демонстраций, соответствующих программе дисциплины)

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 is to prepare a modern competent specialist and to form abilities and skills for continuous self–education and professional improvement.

The implementation of this goal involves solving the following tasks:

- qualitative development of theoretical material in the discipline under study, deepening and expanding theoretical knowledge in order to apply them at the level of inter- subject relations;
- systematization and consolidation of the acquired theoretical knowledge and practical skills;
- formation of skills in the search and use of normative, legal, reference and special literature, as well as other sources of information;
- development of cognitive abilities and activity, creative initiative, independence,

responsibility and organization;

- formation of independent thinking, abilities for self-development, self-education, self-improvement and self-realization;
- development of research skills;
- formation of the ability to solve practical problems (in professional activity) using acquired knowledge, abilities and skills.

Independent work is determined by the specifics of the discipline and the methodology of its teaching, the time provided by the curriculum, as well as the stage of study at which the discipline is studied. The main forms of organizing independent work of students are: classroom independent work under the guidance and supervision of a teacher (at lectures, practical classes and consultations); extracurricular independent work under the guidance and supervision of a teacher (during consultations, during research work), extracurricular independent work without the direct participation of a teacher (preparation for classroom classes, Olympiads, conferences, work with electronic information resources, preparation for exams and tests). Independent work of students is provided by these methodological recommendations.

The forms of independent extracurricular work of students in anatomy include:

1. Preparation and manufacture of anatomical preparations, models, tablets, tables and diagrams.
2. Self-training of students on educational topics and issues included in the list of topics for self-study.
3. Preparation of the student for laboratory classes in his spare time on anatomical preparations and in the anatomical museum.
4. Acquaintance with additional educational literature and other teaching materials on anatomy (electronic atlases, educational videos, etc.).
5. Participation in the preparation of presentations, interactive training programs on anatomy, in computer modeling of organs.

In addition, students can use Internet resources, an electronic medical library, students can get acquainted with questions for self-control on the website of the department.

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

In the course of studying various topics of topographic anatomy and operative surgery, the clinical significance of individual features of the structure of anatomical formations is emphasized, as well as the fundamental importance of anatomical knowledge in the study of clinical disciplines and in practical medicine.

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

Practical classes are not provided.

11.2. Methodological instructive regulations for preparing for an examination

not provided

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;
- determination of the sources necessary for the preparation (textbooks, additional literature, a list of anatomical preparations, etc.) and their study;
- use of lecture notes, materials of laboratory 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 (exam), to take notes of sources important for solving educational tasks. During the semester, the replenishment, systematization and adjustment of student achievements, the development of new and consolidation of already studied material take place.

11.4. Methodological instructive regulations for performing computational and graphical

not provided

11.5. Methodological instructive regulations for performing a control work

not provided

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

not provided

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 №	