

**The procedure for certification in the discipline "Clinical Anatomy. Clinical anatomy of the head and neck" for students of educational specialty program in specialty 05.31.03 Dentistry, focus (profile) Dentistry, full-time form of study for the 2024-2025 academic year.**

The final rating for the discipline ( $R_d$ ) is calculated using the following formula:

$$R_d = (R_{dsr} + R_{is}) / 2$$

where  $R_d$  is the rating for the discipline

$R_{ic}$  – intermediate certification rating (pass)

$R_{dsr}$  – average discipline rating for the third and fourth semesters – individual assessment of mastery of an academic discipline in points for two semesters of study.

The average rating of a discipline for 2 semesters of study is calculated as follows:

$$R_{dsr} = (R_{pre3} + R_{pre4}) / 2$$

Where:

$R_{pre3}$  – preliminary rating for the discipline in the 3rd semester

$R_{pre4}$  – preliminary rating for the discipline in the 4th semester

The preliminary rating for the discipline in the 3rd and 4th semester is calculated according to the following formula:

$$R_{pre} = (R_{cur} + R_{test}) / 2 + R_b - R_f$$

Where:

$R_{cur}$  – current rating for the third or fourth semesters (current academic performance, assessment of which is carried out based on the average score, taking into account the assessment for independent work)

$R_{test}$  – rating for testing in the third or fourth semesters.

$R_b$  – bonus rating

$R_f$  – rating of fines

The maximum number of points that a student can receive in a discipline in semester - 100. The minimum number of points at which the discipline must be passed – 61.

The student's knowledge and work during practical classes are assessed teacher every semester using the classic 5-point system. Independent work of the student includes independent study individual topics provided for in the work program. Student reporting form – abstract report on each topic in the corresponding semester. Every topic independent work is assessed using the classic 5-point system. If the student did not pass independent work to the required extent (on all topics thematic plan), then he, as having not completed the program, is not allowed to passing intermediate certification. At the end of each semester, a centralized calculation of the average score is made student's academic performance in the semester with its transfer to the 100-point system (table 1).

Table 1. Conversion of the student's current academic performance average into a rating score using a 100-point system

Average score of 5 point system	Score of 100 system	Average score of 5-point system	Score of 100 system	Average score of 5 point system	Score of 100 system
5.0	100	4.0	76-78	2.9	57-60
4.9	98-99	3.9	75	2.8	53-56
4.8	96-97	3.8	74	2.7	49-52
4.7	94-95	3.7	73	2.6	45-48
4.6	92-93	3.6	72	2.5	41-44
4.5	91	3.5	71	2.4	36-40
4.4	88-90	3.4	69-70	2.3	31-35
4.3	85-87	3.3	67-68	2.2	21-30
4.2	82-84	3.2	65-66	2.1	11-20
4.1	79-81	3.1	63- 64	2.0	0-10
		3.0	61-62		

## 2. Methodology for calculating points for testing.

The minimum number of points that can be obtained during testing is 61, the maximum is 100 points.

For a correctly completed task, the test taker receives 1 (one) point, for an incorrectly completed task - 0 (zero) points. Evaluation of results after passing the test is carried out in accordance with Table 2.

The test is considered completed when receiving a score of 61 or higher. If you receive less than 61 points, you must take the test again.

Table 2. Conversion of the test result into a rating score using a 100-point system.

Number of errors made when answering 100 test items	% test task completion	Rating score according to a 100-point system
0 - 9	91-100	91-100
10 - 19	81-90	81-90
20 - 29	71-80	71-80
30 - 39	61-70	61-70
≥ 40	0-60	0

## 1. Methodology for calculating the score of intermediate certification (exam) ( $R_{pa}$ )

Interim certification in the discipline is carried out in the form of an exam. The exam takes the form of an interview with an assessment of the maturity of the practical component of the competencies being formed, which includes questions on all sections of the program being studied. The minimum number of points ( $R_{pa}$ ) that can be obtained during an interview is 61, the maximum is 100 points (Table 3).

Table 3. Criteria for assessing the level of mastery of discipline material and the development of competencies

Response characteristics	ECTS score	Points in BRS	Level of competence development in the discipline	Rating on a 5-point scale
A complete, detailed answer to the question posed is given, the totality of conscious knowledge about an object is shown, manifested in the free operation of concepts, the ability to identify its essential and non-essential features, and cause-and-effect relationships. Knowledge about the object is demonstrated against the background of its understanding in the system of this science and interdisciplinary connections. The answer is formulated in scientific terms, presented in literary language, logical, demonstrative, and demonstrates the student's author's position. The student demonstrates a high advanced level of competence development	A	100–96	HIGH	5 (5+)
A complete, detailed answer to the question posed is given, the totality of conscious knowledge about the object is shown, the main provisions of the topic are conclusively revealed; the answers have a clear structure, a logical sequence that reflects the essence of the concepts, the laws, and phenomena being revealed. Knowledge about an object is demonstrated against the background of understanding it in the system of a given science and interdisciplinary connections. The answer is stated in literary language in scientific terms. There may be shortcomings in the definition of concepts, which are corrected by the student independently during the answering process. The student demonstrates a high level of competence development.	IN	95–91		5
A complete, detailed answer to the question posed is given, the ability to identify essential and non-essential features and cause-and-effect relationships is demonstrated. The answer is clearly structured, logical, and presented in literary terms in scientific terms. There may be shortcomings or minor errors, corrected by the student with the help of the teacher. The student demonstrates an average increased level of competence development.	WITH	90–81	AVERAGE	4
A complete, detailed answer to the question posed is given, the ability to identify essential and non-essential features and cause-and-effect relationships is demonstrated. The answer is clearly structured, logical, and stated in scientific terms. However, minor errors or omissions were made, which were corrected by the student with the help of the teacher's "leading" questions. The student demonstrates an average sufficient level of competence development.	D	80-76		4 (4-)
A complete, but insufficiently consistent answer to the question posed is given, but at the same time the ability to identify essential and non-essential features and cause-and-effect relationships is demonstrated. The answer is logical and stated in scientific terms. There may be 1-2 mistakes made in defining basic concepts, which the student finds difficult to correct on his own. The student demonstrates a low level of competence development.	E	75-71	SHORT	3 (3+)
The answer given is insufficiently complete and insufficiently detailed. The logic and consistency of presentation have violations. Errors were made in the disclosure of concepts and the use of terms. The student is not able to independently identify essential and non-essential features and cause-and-effect relationships. The student can concretize generalized knowledge	E	70-66		3

by proving its main points with examples only with the help of the teacher. Speech design requires amendments and corrections. The student demonstrates an extremely low level of competence development.				
An incomplete answer was given; the logic and sequence of presentation have significant violations. Gross mistakes were made in determining the essence of the concepts, theories, and phenomena being revealed, due to the student's lack of understanding of their essential and non-essential features and connections. The answer contains no conclusions. The ability to reveal specific manifestations of generalized knowledge is not shown. Speech design requires amendments and corrections. The student demonstrates low level of competence development.	E	65-61	THRESHOLD	3 (3-)
An incomplete answer was given, representing scattered knowledge on the topic of the question with significant errors in definitions. There is fragmentation and illogical presentation. The student does not realize the connection of this concept, theory, phenomenon with other objects of the discipline. There are no conclusions, specificity and evidence of the presentation. Speech is illiterate. Additional and clarifying questions from the teacher do not lead to correction of the student's answer not only to the question posed, but also to other questions in the discipline. There is no competence.	Fx	60-41	COMPETENCE ABSENT	2
Answers on basic questions of the discipline have not been received. The student does not demonstrate indicators of achieving the formation of competencies. There is no competence.	F	40-0		2

### 3. System of bonuses and fines

This model for calculating the rating score provides for bonuses that increase the rating score and penalties that lower the rating, according to the table (Table 3).

Table 3. Bonuses and penalties by discipline

Bonuses	Name	Points
Surgical Club	Prize-winning places at the Surgical Olympiads	Up to + 5,0
	Prize-winning places at intra-university surgical - competitions - olympiads	Up to +4
	Tutoring in sections	Up to +4
	Conducting international competitions in sections	Up to +4
Fines	Name	Points
Causing material damage	Damage to equipment and property	-2,0
	Absent a lecture or practical class without a good reason	- 2,0
Disciplinary	Systematic lateness to lectures or practical classes	- 1,0
	Completing independent work outside of the established deadlines	- 1,0
	Safety violation	- 2,0

The final grade that the teacher puts in the grade book is the final rating for the discipline ( $R_d$ ), translated according to the "passed - failed" system (Table 4).

Table 4. Final grade for the discipline

Score on a 100-point system	Score according to the system "passed - failed"	Rating using a 5-point system		Score by ECTS
96-100	Passed	5	great	A
91-95	Passed			B
81-90	Passed	4	fine	C
76-80	Passed			D
61-75	passed	3	satisfactorily	E
41-60	Failed	2	unsatisfactorily	Fx
0-40	failed			F

Considered at a meeting of the Department for Operative Surgery and Topographic Anatomy on June 03, 2024, protocol No. 10.

The head of the department



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**Assessment tools for certification in the discipline "Clinical anatomy. Clinical anatomy of the head and neck" for students in the educational program of the specialty in specialty 05/31/03 Dentistry, focus (profile) Dentistry, full-time form of study for the 2024-2025 academic year**

1.1. Assessment tools for conducting certification in the discipline

Current certification includes the following types of tasks: testing, solving situational tasks, assessing the development of practical skills (abilities), test work, writing and defending an essay, interview on test questions, preparing a report.

1.1.2. Example of a situational task

A victim was taken to the hospital with a large scalped wound in the parietal region due to detachment of soft tissues. Name the layers of soft tissue that make up the detached flap. What topographic-anatomical features of the cerebral part of the head lead to the scalp wounds?

1.1.3. Examples of tasks to assess the development of practical skills

1. Perform tracheotomy and tracheostomy on a dummy, and tracheal intubation. Assess the correctness of the manipulation.

2. Place interrupted sutures on the dummy. Remove skin sutures.

1.1.4. An example of a control work.

1. Clinical and anatomical rationale for fractures of the upper jaw (Le Fort classification) and methods of their reposition and immobilization.

1.1.5. Examples of essay topics.

1. Clinical and anatomical rationale for orthodontic methods of correcting bites

2. Indications and technique for performing indirect cardiac massage and artificial respiration. Anatomical rationale.

3. Clinical and anatomical basis for the symptoms of skull fractures.

1.1.6. Examples of test questions for interviews.

1. Clinical anatomy of the neck organs: larynx, trachea (holotopy, skeletopy, syntopy, blood supply, innervation, possible routes of metastasis).

2. Clinical anatomy of the stomach. Holotopy, syntopy, skeletopy. Blood supply and innervation. Features of lymph outflow.

3. Clinical anatomy of the orbit.

1.1.7. Examples of report topics.

1. Otitis media. Causes, symptoms, diagnosis, treatment.

2. Injuries of the esophagus in peacetime and wartime.

3. Rationale for fractures of the lower jaw and methods of immobilization of fragments.

1.2. Assessment tools for conducting intermediate certification in the discipline Interim certification is carried out in the form of a test.

Interim certification includes the following type of task: testing.

1.2.1. Examples of test tasks.

1. What neighboring areas does the pterygopalatine fossa communicate with?

1. with the orbit
2. with the nasal cavity,
3. with the cranial cavity,
4. with the infratemporal fossa,
5. with the oral cavity.

2. Where does pain relief occur in case of infraorbital anesthesia:

1. upper incisors,
2. upper canines,
3. upper small molars,
4. upper molars,
5. upper lip.

3. What is the pterygomaxillary space limited with:

1. the inner surface of the lower jaw,
2. medial pterygoid muscle,
3. buccal muscle,
4. chewing muscle.

4. The borders of the carotid triangle of the neck:

1. anterior edge of the sternocleidomastoid muscle,
2. collarbone,
3. lower edge of the posterior belly of the digastric muscle,
4. superior belly of the omohyoid muscle,
5. midline of the neck.

5. Which line needs to be drawn to calculate access according to McBurney-Volkovich-Dyakonov?

1. line connecting the ends of the costal arches;
2. line connecting the superior anterior iliac spines;
3. the line connecting the navel and the middle of the inguinal ligament;
4. line connecting the navel and the right superior iliac spine;
5. line 3-4 cm above the inguinal ligament.

6. The special instruments for tracheostomy:

1. Sharp single-prong hook,
2. Hemostatic clamp,
3. Luer cannula,
4. Trachea dilator.

7. Subcutaneous fatty tissue of the fronto-parietal-occipital region is:

1. Loose
2. Cellular
3. Multilayer

8. A. meningeal media is a branch of:

1. Internal carotid artery
2. External carotid artery

3. Facial artery
4. Superficial temporal artery
5. Maxillary artery

9. N. facialis leaves the skull on its outer base through:

1. Round hole
2. Oval hole
3. Foramen spinosum
4. Mastoid foramen
5. Stylomastoid foramen

10. Innervation of facial muscles is carried out by:

1. Facial nerve
2. Maxillary nerve
3. Mandibular nerve
4. Orbital nerve

1.2.2. List of questions for conducting intermediate certification (test) in the discipline.

1. Determination of the content of the subject of clinical anatomy. Goal and tasks. Research methods. Relationship between clinical anatomy and surgery.

2. Stages of performing surgical operations. Determination of operational access, acceptance and completion of the operation.

3. Groups of general surgical instruments. Examples of their use.

4. Surgical knots: simple, marine, double surgical. Skills for their development.

5. Surgical sutures, classification, indications for use. Skills in mastering single and continuous sutures: interrupted, mattress, twisting, cosmetic, according to Donati, Spasokukotsky.

6. Clinical anatomy of the intercostal space. Features of the arrangement of elements in the neurovascular bundle. Features of the innervation of intercostal nerves.

7. Clinical anatomy of the diaphragm. The concept of diaphragmatic hernia.

8. Clinical anatomy of the pleura, pleural cavity. Features of blood supply and innervation. The concept of pleurisy.

9. Clinical anatomy of the anterior mediastinum. Skeletotomy, syntopy, holotomy of the heart and pericardium. Features of blood supply and innervation.

10. Clinical anatomy of the posterior mediastinum. Trachea and esophagus (Skeletotomy, syntopy, holotomy, features of blood supply and innervation).

11. Clinical anatomy of the chest skeleton. Features of the structure of the sternum, ribs and thoracic spine. Standard lines of the chest, their use in medicine

12. Determination of puncture and drainage of the pleural cavity.

13. Determination of pericardial puncture.



14. Clinical anatomy of the anterior abdominal wall. Borders, division into areas, projection of the abdominal organs.
15. Weak sites of the anterior abdominal wall. Meaning in medicine.
16. Clinical anatomy of the stomach. Function, departments, blood supply, innervation.
17. Clinical anatomy of the duodenum. Function, departments, blood supply, innervation.
18. Clinical anatomy of the liver. Division into shares and segments. Functions. Skeletotopy, syntopy, holotopy. Blood supply, innervation.
19. Clinical anatomy of the gallbladder and bile ducts. Function. Blood supply, innervation.
20. Pancreas. Functions. Skeletotopy, syntopy, holotopy. Blood supply, innervation.
21. Clinical anatomy of the small intestine. Function, departments. Skeletotopy, syntopy, holotopy. Blood supply, innervation.
22. Clinical anatomy of the colon. Function, departments. Skeletotopy, syntopy, holotopy. Blood supply, innervation.
23. Clinical anatomy of the fronto-parietal-occipital region. Boundaries. Layer structure. Types of external hematomas. Definition of scalp. Features of the course of neurovascular bundles, direction of surgical incisions.
24. Clinical anatomy of the temporal region. Borders, contents, structural features.
25. Peculiarities of the structure of the flat bones of the skull. Meaning in medicine.
26. Meninges of the brain. Intermembrane spaces and their contents. Localization of intracranial hematomas.
27. Ventricles of the brain. Liqueur circulation system. Definition of hydrocephalus.
28. Features of arterial and venous blood supply to the brain. Venous sinuses, their connection with the superficial veins of the head and ways of spreading intracranial infection.
29. Clinical anatomy of the internal base of the skull. Anterior cranial fossa, boundaries, foramina, their contents.
30. Clinical anatomy of the middle cranial fossa, boundaries, foramina, their contents, clinical symptoms of fractures.
31. Clinical anatomy of the posterior cranial fossa, boundaries, foramina, their contents, clinical symptoms of fractures.
32. Clinical anatomy of the facial part of the head. Division into areas. Features of arterial, venous circulation and innervation.
33. Facial and chewing muscles. Function, features of innervation.
34. Clinical anatomy of the buccal region. Borders, contents, cellular space.
35. Clinical anatomy of the parotid-masticatory region. Borders, content. The structure of the parotid salivary gland.

36. Clinical anatomy of the extracranial part of the facial nerve. Function, direction of branches. Rationale for the direction of skin incisions during facial surgery.
37. Clinical anatomy of the first branch of the trigeminal nerve. Function, zones of innervation.
38. Clinical anatomy of the second branch of the trigeminal nerve. Function, zones of innervation.
39. Clinical anatomy of the third branch of the trigeminal nerve. Function, zones of innervation.
40. Clinical anatomy of the orbit. Walls, contents, connection with infectious and inflammatory diseases of the oral cavity.
41. Clinical anatomy of the nasal cavity. Walls, passages, outlet channels. Blood supply, innervation.
42. Clinical anatomy of the maxillary and frontal sinuses. Walls, outlet channels. Features of the course of infectious and inflammatory diseases.
43. Clinical anatomy of the oral cavity. Vestibule of the oral cavity. The oral cavity itself. Dental formula of primary and permanent teeth. Timing of teething.
44. Tooth structure: enamel, dentin, cement, pulp, supporting apparatus of the tooth. Blood supply, innervation, lymphatic drainage.
45. Clinical anatomy of the hard and soft palate. Blood supply, innervation. Congenital palate defects.
46. Clinical anatomy of the tongue. Sections, papillae, muscles. Features of blood supply and innervation.
47. Clinical anatomy of the floor of the mouth. Cellular spaces. Maxillolingual groove.
48. Clinical anatomy of the infratemporal fossa. Content. Importance in dentistry.
49. Clinical anatomy of the pterygopalatine fossa. Content. Communication with neighboring areas.
50. Pterygomandibular cellular space, communication with neighboring areas.
51. Clinical anatomy of the middle ear. Blood supply and innervation.
52. Clinical anatomy of the mastoid region. Shipo Triangle. Importance in surgery.
53. Clinical anatomy of the neck. Division into triangles. Their boundaries.
54. Fascia of the neck according to Shevkunenko. Names. Fascial sheaths. Meaning in medicine.
55. Cellular spaces of the neck. Communication with neighboring areas.
56. Clinical anatomy of the carotid triangle. Borders, content.
57. Clinical anatomy of the submandibular triangle. Borders, content. Pirogov's triangle.

58. Clinical anatomy of the medial neurovascular bundle of the neck. Compound. Glotopia, syntopia, skeletopia. Signs of difference between the external and internal carotid arteries.

59. Clinical anatomy of the larynx. Departments. Function. Blood supply, innervation.

60. Clinical anatomy of the pharynx. Departments. Function. Blood supply, innervation.

61. Clinical anatomy of the cervical trachea. Blood supply, innervation.

62. Clinical anatomy of the cervical esophagus. Blood supply, innervation.

63. Clinical anatomy of the thyroid and parathyroid glands. Blood supply, innervation.

64. Clinical anatomy of the peripharyngeal cellular space. Departments. Content.

65. Clinical anatomy of the upper jaw. Blood supply, innervation.

66. Clinical anatomy of the lower jaw. Blood supply, innervation.

67. Clinical anatomy of the temporomandibular joint. Blood supply, innervation. Joint dysfunction syndrome. Rationale for dislocations of the lower jaw. Methods for their reduction.

68. Clinical and anatomical rationale for tuberal anesthesia.

69. Clinical and anatomical rationale for infraorbital anesthesia.

70. Clinical and anatomical rationale for palatal and nasopalatine anesthesia.

71. Clinical and anatomical rationale for mandibular anesthesia.

72. Clinical and anatomical rationale for tarusal anesthesia.

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The head of the department



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