

**Procedure for conducting attestation  
in discipline «Medical informatics»  
for students of 2024 year of admission  
under the educational programme  
31.05.01 General Medicine  
(Specialist's degree),  
form of study full-time correspondence  
for the 2025-2026 academic year**

1. General principles for calculating the rating for a discipline

The rating for a discipline is an individual assessment of the student's study of the discipline, which consists of the rating for the entire period of study of the discipline (preliminary rating) and the rating of the midterm assessment.

2. Calculation of the components of the preliminary rating

2.1. General principles

The discipline is studied during one semester (the first), therefore the preliminary rating for the discipline for the entire period of study ( $R_{предв}$ ) corresponds to the semester rating of the discipline in the first semester ( $R_{сем}$ ):

$$R_{предв} = R_{сем}$$

The semester rating of a discipline is calculated using the formula:

$$R_{сем} = (R_{тек} + R_{срo}) / 2 + R_{б} - R_{ш}$$

where  $R_{тек}$  – Current rating by discipline,

$R_{срo}$  – rating of independent work of the student within the framework of the discipline,

$R_{б}$  – bonus rating,

$R_{ш}$  – rating of fines

2.2. Calculation of the current rating in the semester

The current rating in the semester ( $R_{тек}$ ) is calculated as the arithmetic mean of all grades received by the student during the semester of studying the discipline when completing assignments of the current monitoring of academic performance, which include the following types of assignments: testing, preparation of presentations and/or reports in a small group or individually with the possibility of subsequent defense (submission of a report), interview on control questions.

The completion of assignments is assessed by the teacher at each seminar-type lesson based on the criteria presented below (Table 1) on a classic 5-point scale, where: 2 - unsatisfactory; 3 - satisfactory; 4 - good; 5 - excellent.

Table 1

## Criteria for the forms of current certification used

| Task type     | Evaluation criteria                                                                                                                                                                                                                            | Rating on a 5-point scale           |                                                |                                         |                                   |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------------------------------|-----------------------------------------|-----------------------------------|
|               |                                                                                                                                                                                                                                                | 5                                   | 4                                              | 3                                       | 2                                 |
| Testing       | Percentage of correct answers                                                                                                                                                                                                                  | 91-100                              | 76-90                                          | 61-75                                   | < 61                              |
| Presentations | 1. Technical assessment:<br>compliance with deadlines for submission of work • compliance with design requirements                                                                                                                             | complied with                       | sufficiently observed                          | partially met                           | not met                           |
|               | 2. Content Rating: compliance of the content with the topic fact of disclosure of the topic reflection of all necessary elements of the task in the work compliance of the style of the text with the type of work                             | complied with                       | sufficiently observed                          | partially met                           | not met                           |
|               | 3. Evaluation of the student's analytical work: adequacy of the choice of sources level of analysis (deep/superficial) analytical tools and presentation of conclusions (including the use of diagrams, examples, illustrations, graphs, etc.) | assessment criteria fully disclosed | assessment criteria are disclosed sufficiently | evaluation criteria partially disclosed | assessment criteria not disclosed |
| Reports       | 1. Technical assessment: compliance with the performance regulations compliance with the requirements for the elements of the performance                                                                                                      | complied with                       | sufficiently observed                          | partially met                           | not met                           |
|               | 2. Content assessment: presence of structure and logic of the report presence of links and transitions between                                                                                                                                 | complied with                       | sufficiently observed                          | partially met                           | not met                           |

|                                |                                                                                                                                                                                                                                                                                                                                        |                                                     |                                                     |                                                    |                                      |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------|----------------------------------------------------|--------------------------------------|
|                                | parts of the report disclosure of the topic in the report                                                                                                                                                                                                                                                                              |                                                     |                                                     |                                                    |                                      |
|                                | 3. Aesthetic assessment (assessment of oratory skills) (if required): speech rate speech volume use of appropriate style and vocabulary                                                                                                                                                                                                | high level of development of public speaking skills | average level of public speaking skills development | low level of development of public speaking skills | public speaking skills not developed |
|                                | 4. Evaluation of a group report (if required): distribution of parts of the report between speakers by time and content taking into account the individual characteristics of speakers when distributing parts of the report between speakers                                                                                          | complied with                                       | sufficiently observed                               | partially met                                      | not met                              |
|                                | 5. Answers to questions following the report: psychological readiness to answer correctness of argumentation of answers manner of holding oneself                                                                                                                                                                                      | evaluation criteria are fully disclosed             | assessment criteria are disclosed sufficiently      | assessment criteria are disclosed sufficiently     | assessment criteria not disclosed    |
|                                | 6. Additionally – asking questions to the speaker by other students (if applicable): the question is aimed at obtaining information that was not explicitly reflected in the report the question is not aimed at identifying information known to the student the question shows that the student is analyzing the information speaker | complied with                                       | sufficiently observed                               | partially met                                      | not met                              |
| Interview on control questions | • Correctness of the answer                                                                                                                                                                                                                                                                                                            | correct                                             | correct                                             | partially correct                                  | incorrect                            |
|                                | • Completeness of the                                                                                                                                                                                                                                                                                                                  | complete                                            | sufficiently                                        | incomplete                                         | incomplete                           |

|  |                                     |                     |                               |                                    |                                   |
|--|-------------------------------------|---------------------|-------------------------------|------------------------------------|-----------------------------------|
|  | answer                              |                     | complete                      |                                    | lete                              |
|  | • Structure and logic of the answer | structured, logical | basically structured, logical | poorly structured, logic is broken | unstructured, fragmented, chaotic |

At the end of the semester, Rtech is calculated and the calculated value is converted to a 100-point scale according to Table 3.

An Rtech value of more than 61 points is considered to be the absence of current debt.

### 2.3. Calculation of the rating of the student's independent work in the semester (Rcpo)

The CPO rating in the semester corresponds to the student's assessment for completing the CPO electronic training course for this discipline on the electronic information and educational portal of the Volgograd State Medical University of the Ministry of Health of the Russian Federation. One semester of studying a discipline includes completing one CPO electronic training course.

CPO assessment is carried out based on the criteria presented below (Table 2) on a classic 5-point scale, where: 2 - unsatisfactory; 3 - satisfactory; 4 - good; 5 - excellent.

Table 2

Evaluation criteria CPO

| Task type                                                     | Evaluation criteria                                                                                     | Rating on a 5-point scale |               |               |                   |
|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|---------------------------|---------------|---------------|-------------------|
|                                                               |                                                                                                         | 5                         | 4             | 3             | 2                 |
| CPO in the form of an electronic course/course element on the | Compliance with deadlines for completing work                                                           | complied with             | complied with | complied with | not observed      |
| ЭИОП VolGMU                                                   | Completeness of studying the material that is not subject to assessment (viewing presentations, videos) | studied fully             | studied fully | studied fully | Studied not fully |
|                                                               | Average score for completing current tests and the final test, taking into account the weight           | > 4,50                    | 4,00 – 4,49   | 3,00 – 3,99   | < 3,00            |

At the end of each study, the student's Rcpo is calculated and the calculated value is converted to a 100-point scale according to Table 3. An Rcpo value of more than 61 points is considered to be the absence of current debt.

#### 2.4. Conversion of the current rating and the CPO rating into a score on a 100-point system

At the end of the semester, the current rating and the CPO rating of the student, calculated on a 5- point system, are converted into a score on a 100-point system. The conversion is made according to Table 3.

Table 3

Translation into a rating point on a 100-point system

| Average score on a 5-point scale | Score on a 100-point scale | Average score on a 5-point scale | Score on a 100-point scale | Average score on a 5-point scale | Score on a 100-point scale | Average score on a 5-point scale | Score on a 100-point scale |
|----------------------------------|----------------------------|----------------------------------|----------------------------|----------------------------------|----------------------------|----------------------------------|----------------------------|
| 5,00                             | 100                        | 3,45                             | 70                         | 2,48                             | 40                         | 2,09                             | 10                         |
| 4,95                             | 99                         | 3,40                             | 69                         | 2,46                             | 39                         | 2,08                             | 9                          |
| 4,90                             | 98                         | 3,35                             | 68                         | 2,44                             | 38                         | 2,07                             | 8                          |
| 4,85                             | 97                         | 3,30                             | 67                         | 2,42                             | 37                         | 2,06                             | 7                          |
| 4,80                             | 96                         | 3,25                             | 66                         | 2,40                             | 36                         | 2,05                             | 6                          |
| 4,75                             | 95                         | 3,20                             | 65                         | 2,38                             | 35                         | 2,04                             | 5                          |
| 4,70                             | 94                         | 3,15                             | 64                         | 2,36                             | 34                         | 2,03                             | 4                          |
| 4,65                             | 93                         | 3,10                             | 63                         | 2,34                             | 33                         | 2,02                             | 3                          |
| 4,60                             | 92                         | 3,05                             | 62                         | 2,32                             | 32                         | 2,01                             | 2                          |
| 4,5                              | 91                         | 3,00                             | 61                         | 2,30                             | 31                         | 2,00                             | 1                          |
| 4,47                             | 90                         | 2,98                             | 60                         | 2,29                             | 30                         |                                  |                            |
| 4,43                             | 89                         | 2,95                             | 59                         | 2,28                             | 29                         |                                  |                            |
| 4,40                             | 88                         | 2,93                             | 58                         | 2,27                             | 28                         |                                  |                            |
| 4,37                             | 87                         | 2,90                             | 57                         | 2,26                             | 27                         |                                  |                            |
| 4,33                             | 86                         | 2,88                             | 56                         | 2,25                             | 26                         |                                  |                            |
| 4,30                             | 85                         | 2,85                             | 55                         | 2,24                             | 25                         |                                  |                            |
| 4,27                             | 84                         | 2,83                             | 54                         | 2,23                             | 24                         |                                  |                            |
| 4,23                             | 83                         | 2,80                             | 53                         | 2,22                             | 23                         |                                  |                            |
| 4,20                             | 82                         | 2,78                             | 52                         | 2,21                             | 22                         |                                  |                            |
| 4,17                             | 81                         | 2,75                             | 51                         | 2,20                             | 21                         |                                  |                            |
| 4,13                             | 80                         | 2,73                             | 50                         | 2,19                             | 20                         |                                  |                            |
| 4,10                             | 79                         | 2,70                             | 49                         | 2,18                             | 19                         |                                  |                            |
| 4,07                             | 78                         | 2,68                             | 48                         | 2,17                             | 18                         |                                  |                            |
| 4,03                             | 77                         | 2,65                             | 47                         | 2,16                             | 17                         |                                  |                            |
| 4,00                             | 76                         | 2,63                             | 46                         | 2,15                             | 16                         |                                  |                            |
| 3,90                             | 75                         | 2,60                             | 45                         | 2,14                             | 15                         |                                  |                            |
| 3,80                             | 74                         | 2,58                             | 44                         | 2,13                             | 14                         |                                  |                            |
| 3,70                             | 73                         | 2,55                             | 43                         | 2,12                             | 13                         |                                  |                            |

|      |    |      |    |      |    |  |
|------|----|------|----|------|----|--|
| 3,60 | 72 | 2,53 | 42 | 2,11 | 12 |  |
| 3,50 | 71 | 2,50 | 41 | 2.10 | 11 |  |

## 2.5. Bonus and penalty rating

Bonuses and penalties are assigned on a 100-point scale. Bonus and penalty criteria are given in Table 4.

Table 4

Bonuses and penalties for discipline

| Bonuses                 | Name                                                                     | Scores      |
|-------------------------|--------------------------------------------------------------------------|-------------|
| УИРС                    | Educational and research work on the topics of the subject being studied | Up to + 5,0 |
| ИИРС                    | Certificate, diploma, etc. of a participant in MHO of the Department     | Up to + 5,0 |
| Penalties               | Name                                                                     | Scores      |
| Disciplinary            | Absence from a lecture or practical class without a valid reason         | - 2,0       |
|                         | Systematic lateness to lectures or seminar-type classes                  | - 1,0       |
|                         | Violation of safety regulations                                          | - 2,0       |
| Causing material damage | Damage to equipment and property                                         | - 2,0       |

## 3. Calculation of the midterm assessment rating

Midterm assessment for a discipline is carried out in the form of a test and includes the following types of tasks: interview.

The assessment of the level of development of the necessary competencies in the student is carried out on a 100-point scale according to the criteria of Table 5.

Table 5

Criteria for assessing the level of assimilation of the discipline material and the formation of competencies

| Characteristics of the answer                                                                                                                                                                                                                                                                                                                                       | Assessment ECTS | Scores in БРС | Level of development of competence in the discipline |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------|------------------------------------------------------|
| A complete, detailed answer to the question is given, a set of conscious knowledge about the object is shownmanifested in free operation of concepts, the ability to identify its essential and non -essential features, cause -and - effect relationships. Knowledge about the object is demonstrated against the background of its understanding in the system of | A               | 100-96        | HIGH                                                 |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |   |       |        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------|--------|
| <p>this science and interdisciplinary connections. The answer is formulated in scientific terms, presented in literary language, logical, conclusive, demonstrates the author's position of the student. The student demonstrates a high advanced level of competence formation. Intermediate certification is passed.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |   |       |        |
| <p>A complete, detailed answer to the question is given, the totality of conscious knowledge about the object is shown, the main provisions of the topic are convincingly disclosed; a clear structure and logical sequence are traced in the answer, reflecting the essence of the concepts, theories, and phenomena being disclosed. Knowledge of the object is demonstrated against the background of its understanding in the system of this science and interdisciplinary connections. The answer is presented in literary language in scientific terms. There may be shortcomings in the definition of concepts, corrected by the student independently in the process of answering. The student demonstrates a high level of competence development. Intermediate assessment passed</p> | B | 95-91 |        |
| <p>A full, detailed answer to the question is given, the ability to identify essential and non -essential features, cause -and - effect relationships is demonstrated. The answer is clearly structured, logical, presented in literary language 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 advanced level of competence development. Intermediate assessment passed</p>                                                                                                                                                                                                                                                                                                        | C | 90-81 | MIDDLE |
| <p>A full, detailed answer to the question is given, the ability to identify essential and non -essential features, cause -and - effect relationships is demonstrated. The answer is clearly structured, logical, and presented in scientific</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | D | 80-76 |        |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |   |       |     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------|-----|
| terms. However, minor errors or shortcomings 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. Interim assessment has been passed.                                                                                                                                                                                                                                                                                                                          |   |       |     |
| A complete but insufficiently consistent answer to the question is given, but the ability to identify essential and non -essential features and cause -and -effect relationships is demonstrated. The answer is logical and presented in scientific terms. There may be 1 -2 errors in defining basic concepts that the student finds difficult to correct independently. The student demonstrates a low level of competence development. Interim assessment passed                                                                                                                          | E | 75-71 | LOW |
| The answer is not complete or detailed enough. The logic and sequence of presentation are violated. 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, proving its main provisions using examples only with the help of the teacher. Speech design requires amendments, correction. The student demonstrates an extremely low level of competence development. Interim assessment passed. | E | 70-66 |     |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |    |       |               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-------|---------------|
| The answer is incomplete, the logic and sequence of presentation have significant violations. Gross errors were made in determining the essence of the concepts, theories, phenomena being revealed, due to the student's misunderstanding of their essential and non-essential features and connections. The answer lacks conclusions. The ability to reveal specific manifestations of generalized knowledge is not demonstrated. Speech design requires amendments, correction. The student demonstrates a threshold level of competence development. Interim assessment passed.                                                                                     | E  | 65-61 | THRESHOLD     |
| An incomplete answer is given, representing scattered knowledge on the topic of the question with significant errors in definitions. Fragmentation and illogical presentation are present. The student does not understand the connection of this concept, theory, phenomenon with other objects of the discipline. There are no conclusions, specification and evidence of presentation. Speech is illiterate. Additional and clarifying questions from the teacher do not lead to the correction of the student's answer not only to the question posed, but also to other questions of the discipline. Competence is absent. Midterm assessment has not been passed. | Fx | 60-41 | NO COMPETENCE |
| No answers were received to the basic questions of the discipline. The student does not demonstrate indicators of achievement of the formation of competencies. Competence is absent. Midterm assessment has not been passed.                                                                                                                                                                                                                                                                                                                                                                                                                                           | F  | 40-0  |               |

#### 4. Calculation of the final rating for the discipline

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

$$R_d = (R_{предв} + R_{па}) / 2$$

The final grade, calculated on a 100-point scale, is converted into a “passed – fail” system according to Table 6.

Table 6

## Final grade for the discipline

| Rating on a 100-point scale | Assessment according to the system " passed - fail" | ECTS assessment |
|-----------------------------|-----------------------------------------------------|-----------------|
| 100-96                      | passed                                              | A               |
| 95-91                       |                                                     | B               |
| 90-81                       |                                                     | C               |
| 80-76                       |                                                     | D               |
| 75-71                       |                                                     | E               |
| 70-66                       |                                                     |                 |
| 65-61                       |                                                     |                 |
| 60-41                       | fail                                                | Fx              |
| 40-0                        |                                                     | F               |

Considered at the meeting of the department of clinical engineering and artificial intelligence technologies, protocol of «15» may 2025r. № 10.

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