

**Assessment Procedure
in discipline « Physical and colloidal chemistry»
for students of 2024 year of admission
under the educational programme
cipher 35.05.01 Pharmacy,
specialisation (profile) Pharmacy
(Specialist's degree),
form of study full-time
for the 2025-2026 academic year**

1. General Principles of Discipline Rating Calculation

The discipline rating represents an individual assessment of a student's performance in the discipline, calculated as the sum of the preliminary rating (accumulated during the study period) and the intermediate assessment rating.

2. Calculation of Preliminary Rating Components

The discipline is studied over two semesters (third and fourth semester). Thus, the preliminary rating for the entire study period (R_{prelim}) corresponds to the semester rating for the second semester:

$$R_{prelim} = R_{sem}$$

The semester rating is calculated using the formula:

$$R_{sem} = (R_{current} + R_{indep}) / 2 + R_{bonus} - R_{penalty}$$

Where:

- ***R_{current}*** – current performance rating in the discipline,
- ***R_{indep}*** – rating for independent work in the discipline,
- ***R_{bonus}*** – bonus rating,
- ***R_{penalty}*** – penalty rating.

2.2. Calculation of Current Rating in the Semester

The current rating ($R_{current}$) is calculated as the arithmetic mean of all grades received by the student during the semester for tasks assessed under ongoing performance monitoring. These tasks include testing, written assignments, solving situational problems, and assessment of practical skills.

Task performance is evaluated by the instructor during seminar-type classes based on the criteria provided in Table 1, using a traditional 5-point grading scale:

- 2 – Unsatisfactory
- 3 – Satisfactory
- 4 – Good
- 5 – Excellent

Table 1: Criteria for Forms of Current Assessment

Type of Task	Evaluation Criteria	Grade (5-point scale)			
		5	4	3	2
Testing	Percentage of correct answers	91-100	76-90	61-75	< 61
Solving Situational Problems	Correctness of the answer	Correct	Correct	Partially correct	Incorrect
	Presence, completeness, and correctness of justification	Justified without remarks	Justified with remarks	Partially justified	No justification
Written Assignment	Correctness of answers	Correct	Correct	Partially correct	Incorrect
	Presence, completeness, and correctness of justification	Justified without remarks	Justified with remarks	Partially justified	-
Assessment of Practical Skills	Knowledge of theoretical foundations	Full knowledge	Full knowledge	Uncertain knowledge	No knowledge
	Adherence to technique and success of outcome	Adhered, successful outcome	Adhered with minor inaccuracies, successful outcome	Performed after instructor correction, successful outcome	Attempted but unsuccessful or refusal to perform
	Confidence and consistency in skill execution	Confident and consistent	Lacks confidence but generally consistent	Lacks confidence, repeated errors	

At the end of the semester, **Rcurrent** is converted to a 100-point scale according to **Table 3**. A score of **Rcurrent** above 61 points indicates no current academic debt.

2.3. Calculation of Independent Work Rating (Rindep) in the Semester

The independent work rating (Rindep) corresponds to the student's performance in the electronic learning course for independent work, hosted on the Volgograd State Medical University (VolgSMU) electronic educational platform. One semester includes one electronic independent work course.

Independent work is evaluated based on the criteria in Table 2, using the 5-point grading scale:

- 2 – Unsatisfactory
- 3 – Satisfactory
- 4 – Good
- 5 – Excellent

• **Table 2: Criteria for Independent Work Assessment**

Type of Task	Evaluation Criteria	Grade (5-point scale)			
		5	4	3	2
Independent Study files (Electronic Course on VolgSMU Platform)	Adherence to deadlines	Met	Met	Met	Not met
	Completeness of material (e.g., viewing presentations, videos)	Fully completed	Fully completed	Fully completed	Not fully completed
	Average score for ongoing and final tests (weight: ongoing=1, final=3)	> 4,50	4,00 – 4,49	3,00 – 3,99	< 3,00

- At the end of the semester, Rindep is converted to a 100-point scale according to **Table 3**. A score of Rindep above 61 points indicates no current academic debt.
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- **2.4. Conversion of Current and Independent Work Ratings to the 100-Point Scale**
- At the end of the semester, the current rating (Rcurrent) and independent work rating (Rindep), calculated on the 5-point scale, are converted to the 100-point scale according to **Table 3**.
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- **Table 3: Conversion to 100-Point Scale**

5-Point Scale	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 Ratings**

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- Bonuses and penalties are assigned on a 100-point scale. The criteria for bonuses and penalties are provided in **Table 4**.
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- **Table 4: Bonuses and Penalties for the Discipline**

Bonuses	Description	Points
Academic Research Work	Research work related to the discipline's topics	Up to + 5,0
Scientific Achievements	Certificate, diploma, or award from the department's scientific conference	Up to + 5,0
Penalties	Description	Points
Disciplinary	Unexcused absence from a lecture or practical class	- 2,0
	Failure to complete a practical class assignment	- 2,0
	Repeated tardiness to lectures or practical classes	- 1,0
	Violation of safety protocols	- 2,0
Material Damage	Damage to equipment or property	- 2,0

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- **3. Calculation of Intermediate Assessment Rating**
- The intermediate assessment for the discipline is conducted in the form of an oral examination (interview). The evaluation of the student's competency level is based on a 100-point scale according to the criteria in **Table 5**.

• **Table 5: Criteria for Assessing Knowledge and Competency Levels**

Answer Characteristics	ECTS Grade	Points (100-point scale)	Competency Level
A complete, detailed response demonstrating a deep understanding of the subject, with confident use of concepts, identification of essential and non-essential features, and causal relationships. Knowledge is contextualized within the discipline and interdisciplinary connections. The response is articulate, logical, evidence-based, and reflects the student's independent perspective. Demonstrates a high advanced level of competency. Intermediate assessment passed.	A	100-96	HIGH
A complete, detailed response demonstrating a solid understanding of the subject, with clear structure and logical sequence. Knowledge is contextualized within the discipline and interdisciplinary connections. The response is articulate and uses scientific terminology. Minor errors in definitions may occur but are self-corrected. Demonstrates a high level of competency. Intermediate assessment passed.	B	95-91	
A complete, detailed response showing the ability to identify essential and non-essential features and causal relationships. The response is structured, logical, and uses scientific terminology. Minor errors may occur but are corrected with instructor guidance. Demonstrates a moderately high level of competency. Intermediate assessment passed.	C	90-81	MODERATE
A complete, detailed response showing the ability to identify essential and non-essential features and causal relationships. The response is structured, logical, and uses scientific terminology. Minor errors may occur but are corrected with instructor prompts. Demonstrates a sufficient moderate level of competency. Intermediate assessment passed.	D	80-76	
A complete but less consistent response showing the ability to identify essential and non-essential features and causal relationships. The response is logical and uses scientific terminology. One or two errors in key concepts may occur, which the student struggles to correct independently. Demonstrates a low level of competency. Intermediate assessment passed.	E	75-71	LOW
An incomplete and inconsistent response with logical and structural flaws. Errors in terminology and concepts occur, and the student cannot independently identify essential features or causal relationships. Specific knowledge is demonstrated only with instructor assistance. Speech requires correction. Demonstrates a very low level of competency. Intermediate assessment passed.	E	70-66	
An incomplete response with significant logical and structural flaws. Major errors in concepts and terminology due to a lack of understanding of essential features and relationships. No conclusions are provided. Demonstrates a threshold level of competency. Intermediate assessment passed.	E	65-61	THRESHOLD

An incomplete, fragmented response with significant errors in definitions and illogical presentation. The student fails to connect concepts to the discipline. No conclusions or evidence are provided. Speech is unclear. Additional questions do not lead to corrected responses. Competency absent. Intermediate assessment not passed.	Fx	60-41	COMPETENCY ABSENT
No responses to basic discipline questions. No indicators of competency achievement. Competency absent. Intermediate assessment not passed.	F	40-0	

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- **4. Calculation of Final Discipline Rating**
- The final discipline rating (R_{final}) is calculated using the formula:
 - $R_{final} = (R_{prelim} + R_{exam}) / 2$
- The final rating, calculated on the 100-point scale, is converted to the 5-point scale according to Table 6.

- **Table 6: Final Discipline Rating**

100-Point Scale	5-Point Scale		ECTS Grade
96-100	5	Excellent	A
91-95			B
81-90	4	Good	C
76-80			D
61-75	3	Satisfactory	E
41-60	2	Unsatisfactory	Fx
0-40			F

Considered at the department meeting chemistry protocol of «30»_May 2025 г. № 10.

Head of the Department

A.K.Brel'