

## 8. Criteria and evaluation order of educational outcomes

The criteria for evaluating the knowledge and skills of higher education students from the educational component "Fundamentals of research in biotechnology" were developed in accordance with the "Regulations on the procedure for evaluating the results of higher education students at the National Pharmaceutical University A2.2-25-031-B".

The evaluation of the success of higher education applicants in the educational component is a rating, presented on a one-point scale and defined according to the ECTS system and the traditional scale adopted in Ukraine.

Assessments (in points) are reflected in the calendar-thematic plans of practical and seminar classes.

### Criteria for evaluating the knowledge and skills of students of higher education in correspondence form of education in laboratory and seminar classes

*Assessment of current educational activities* (held during each lesson) – control of theoretical knowledge, practical skills and abilities. When mastering each topic of the content modules for the current educational activity, higher education applicants are awarded points for all types of activities, which are added up at the end of studying the content module.

Evaluation criteria	Scores
<b>1</b>	<b>2</b>
<ul style="list-style-type: none"> <li>➤ showed a comprehensive and deep knowledge of theoretical material on the topic of the class, which is set out in the texts of lectures, compulsory and additional literature, gave comprehensive answers to theoretical questions of the teacher</li> <li>➤ answered 90%-100% of the test tasks correctly;</li> <li>➤ has studied the methodological recommendations for the practical lesson and mastered the methodology of practical work;</li> <li>➤ correctly completed the practical task;</li> <li>➤ correctly formulated conclusions based on the results of the work performed.</li> </ul>	7.0
<ul style="list-style-type: none"> <li>➤ showed full knowledge of the theoretical material on the topic of the class, which is set out in the texts of lectures, compulsory and additional literature, and answered theoretical questions of the teacher with minor deficiencies;</li> <li>➤ correctly answered 74%-89% of the test tasks;</li> <li>➤ has worked out the methodological recommendations for the practical lesson, but has not fully mastered the methodology of practical work;</li> <li>➤ correctly completed the practical task, but made minor mistakes that do not affect the quality of the result;</li> <li>➤ formulated conclusions based on the results of the work performed with minor inaccuracies.</li> </ul>	6.0
<ul style="list-style-type: none"> <li>➤ showed knowledge of theoretical material on the topic of the lesson to the extent that is considered necessary and sufficient to apply knowledge in standard situations;</li> <li>➤ answered theoretical questions with errors that were corrected with the help of the teacher;</li> <li>➤ correctly answered 60%-73% of the test tasks;</li> <li>➤ did not work out the methodological recommendations for the practical lesson in full, made gross mistakes in teaching the methodology of practical work;</li> <li>➤ correctly completed the practical task, but with the help of the teacher, needs to rely on the sample;</li> <li>➤ made mistakes in formulating conclusions based on the results of the work performed.</li> </ul>	5.0

<ul style="list-style-type: none"> <li>➤ did not familiarize himself with the theoretical material on the topic of the class, which is set out in the texts of lectures, compulsory and additional literature;</li> <li>➤ did not answer theoretical questions of the teacher;</li> <li>➤ answered less than 60% of the test tasks correctly;</li> <li>➤ performed certain methodological actions incorrectly, performed the task not independently (following the instructor's instructions) or not in full;</li> <li>➤ did not formulate conclusions based on the results of the work performed.</li> </ul>	0-4.0
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*The independent work of a higher education student* is monitored during each practical lesson, during the control of the content module.

In the event that the applicant comes to class unprepared, he or she must be present at the class. After working with the recommended literature and / or electronic sources on the topic of the lesson and an individual conversation with the teacher on the topic of the lesson, the higher education applicant is allowed to practice.

The sum of the points of the current control is the sum of the points received by the higher education applicant during the study of all topics of the module and the control of the content module on the educational component.

**Criteria for evaluating the knowledge and skills of higher education applicants on the control of the content module**

Candidates of higher education who have completed all types of work provided for in the curriculum and have scored at least the minimum number of points while studying the topics of the content module are admitted to the control of the content module (CCM). CCM is carried out in the last lesson of the content module and is evaluated in points.

Evaluation criteria	Scores
<p><b><i>theoretical task:</i></b></p> <ul style="list-style-type: none"> <li>➤ gave a comprehensive answer to the theoretical question;</li> </ul> <p><b><i>practical task:</i></b></p> <ul style="list-style-type: none"> <li>➤ answered 90-100% of the test questions;</li> </ul>	43-51
<p><b><i>theoretical task:</i></b></p> <ul style="list-style-type: none"> <li>➤ gave a correct but incomplete answer to a theoretical question;</li> </ul> <p><b><i>practical task:</i></b></p> <ul style="list-style-type: none"> <li>➤ answered 74-89% of test questions;</li> </ul>	34-42
<p><b><i>theoretical task:</i></b></p> <ul style="list-style-type: none"> <li>➤ gave answers to theoretical questions with errors or not at all;</li> </ul> <p><b><i>practical task:</i></b></p> <ul style="list-style-type: none"> <li>➤ answered 60-73% of test questions;</li> </ul>	25-33
<p><b><i>theoretical task:</i></b></p> <ul style="list-style-type: none"> <li>➤ did not answer the theoretical question;</li> </ul> <p><b><i>practical task:</i></b></p> <ul style="list-style-type: none"> <li>➤ answered less than 60% of the test questions.</li> </ul>	0-24

For those applicants who want to improve their performance in the educational component on the ECTS scale and increase the rating of the module, this is possible at the last session of the module during the semester assessment.