

**CRITERIA FOR ASSESSING KNOWLEDGE AND SKILLS
OF HIGHER EDUCATION APPLICANTS
IN THE EDUCATIONAL COMPONENT
"BIOCHEMICAL TRANSFORMATION OF DRUGS IN THE BODY"**

The educational component "Biochemical Transformation of Drugs in the Body" is studied during 1 semester and consists of 2 content modules.

The current control is carried out during the semester during practical classes and is evaluated by the sum of the points scored. The total number of points of the current control is 100 points. Current control is carried out in the form of an oral survey, written express control, speeches of higher education students during the discussion of issues, in the form of computer testing and solving situational tasks. The independent work of higher education students, which is provided for by the topic of the lesson along with classroom work, is assessed during the current control of the topic in the relevant lesson. Current control is mandatory, the knowledge of higher education students must be assessed at each lesson (on each topic).

Control of a content module is the control of the amount of knowledge that has been acquired by a higher education student during the content module. It can be conducted in the form of written work or computer testing.

**Scoring scheme and distribution of points of
current control for higher education student**

Module 1							Total
Current testing and self-study							
Content module 1			Content module 2				100
T1	T2	K3M	T3	T4	T5	K3M	
10	10	25	10	10	10	25	

Semester control is conducted in the form of testing and is not graded. A higher education applicant is considered admitted to semester control if he or she has completed all the classroom classes provided for in the curriculum for the educational component, has completed all the types of work provided for in the work program for the educational component.

A higher education student receives a semester credit at the last lesson of the educational component based on the results of the *current assessment and control of content modules*. This type of final control does not involve any additional work, surveys or testing at the last class. Credit is given to higher education students who have scored the required minimum number of points during the current control (60 points and above), have no unexcused absences from practical classes and have fulfilled all the requirements provided for in the work program of the educational component.

The results are converted from one scale to another according to the table.

RATING SCALE

The sum of points on a 100-point scale	ECTS scale	Grade on an undifferentiated scale
90-100	A	credit
82-89	B	
74-81	C	
64-73	D	
60-63	E	
35-59	FX	not credit
1-34	F	

CONTROL OF KNOWLEDGE AT EACH LESSON

Current control consists in assessing the level of preparedness of higher education students to perform specific work, the completeness and quality of mastering by higher education students of educational material on topics, content modules of the educational component and the performance of individual tasks in accordance with the work program of the educational component and is carried out by teachers during the semester. The forms and content of the current control, the distribution of points between individual control measures and tasks within one lesson (oral examination, control tests, written assignments) are determined by the department and communicated to higher education students at the beginning of the semester in which it is performed. The number of points received for each type of academic work in various forms of current control is given to higher education students in the academic group journal.

Module 1: Biochemical transformation of drugs in the body

Content module 1. General principles of biotransformation of xenobiotics. Phase of modification of drug compounds.

Lesson 1.

Topic: General principles of biotransformation of xenobiotics. Biotransformation systems of drugs.

Rating grade, points	Grading criteria
10	It is assigned to a higher education applicant who, when answering questions, showed comprehensive, systematic, deep knowledge of the program material, is able to demonstrate the knowledge provided at the level of creative use
9	Given to a higher education applicant who, when answering questions, showed complete knowledge of the program material provided at the level of similar reproduction, but made some minor mistakes
8	It is assigned to a higher education applicant who, when answering the question, showed complete knowledge of the program material provided at the level of similar reproduction, but made several minor errors or one or two major errors.
7	It is assigned to a higher education applicant who, when answering questions, showed insufficient knowledge of the basic program material to the extent necessary for further study and work provided for by the program at the level of reproduction, and generally coped with the task.
6-1	It is assigned to a higher education applicant who, when answering questions, revealed serious gaps in knowledge of the basic material, made fundamental mistakes
0	Given to the applicant in the case of a complete absence of an answer.

Lesson 2.

Topic: Phase I (modification) of xenobiotic metabolism. Metabolism of substrates under the action of enzymes of oxidative systems.

Rating grade, points	Grading criteria
10	It is assigned to a higher education applicant who, when answering questions, showed comprehensive, systematic, deep knowledge of the program material, is able to demonstrate the knowledge provided at the level of creative use
9	Given to a higher education applicant who, when answering questions, showed complete knowledge of the program material provided at the level of similar reproduction, but made some minor mistakes
8	It is assigned to a higher education applicant who, when answering the question, showed complete knowledge of the program material provided at the level of

	similar reproduction, but made several minor errors or one or two major errors.
7	It is assigned to a higher education applicant who, when answering questions, showed insufficient knowledge of the basic program material to the extent necessary for further study and work provided for by the program at the level of reproduction, and generally coped with the task.
6-1	It is assigned to a higher education applicant who, when answering questions, revealed serious gaps in knowledge of the basic material, made fundamental mistakes
0	Given to the applicant in the case of a complete absence of an answer.

Content module 2. The conjugation phase of drug compounds. Factors that affect the metabolism of drugs.

Lesson 3.

Topic: II Phase (conjugation) of xenobiotic metabolism. Conjugation and transport processes.

Rating grade, points	Grading criteria
10	It is assigned to a higher education applicant who, when answering questions, showed comprehensive, systematic, deep knowledge of the program material, is able to demonstrate the knowledge provided at the level of creative use
9	Given to a higher education applicant who, when answering questions, showed complete knowledge of the program material provided at the level of similar reproduction, but made some minor mistakes
8	It is assigned to a higher education applicant who, when answering the question, showed complete knowledge of the program material provided at the level of similar reproduction, but made several minor errors or one or two major errors.
7	It is assigned to a higher education applicant who, when answering questions, showed insufficient knowledge of the basic program material to the extent necessary for further study and work provided for by the program at the level of reproduction, and generally coped with the task.
6-1	It is assigned to a higher education applicant who, when answering questions, revealed serious gaps in knowledge of the basic material, made fundamental mistakes
0	Given to the applicant in the case of a complete absence of an answer.

Lesson 4.

Topic: Features of transformation of medicinal substances. Ways of transformation of certain groups of drugs.

Rating grade, points	Grading criteria
10	It is assigned to a higher education applicant who, when answering questions, showed comprehensive, systematic, deep knowledge of the program material, is able to demonstrate the knowledge provided at the level of creative use
9	Given to a higher education applicant who, when answering questions, showed complete knowledge of the program material provided at the level of similar reproduction, but made some minor mistakes
8	It is assigned to a higher education applicant who, when answering the question, showed complete knowledge of the program material provided at the level of similar reproduction, but made several minor errors or one or two major errors.
7	It is assigned to a higher education applicant who, when answering questions, showed insufficient knowledge of the basic program material to the extent

	necessary for further study and work provided for by the program at the level of reproduction, and generally coped with the task.
6-1	It is assigned to a higher education applicant who, when answering questions, revealed serious gaps in knowledge of the basic material, made fundamental mistakes
0	Given to the applicant in the case of a complete absence of an answer.

Lesson 5.

Topic: Factors that affect the metabolism of drugs. The role of metabolism (biotransformation) in drug toxicity. Pharmacogenetics. Polymorphism of phase I enzymes. Polymorphism of phase II enzymes. The importance of biotransformation in drug discovery and development.

Rating grade, points	Grading criteria
10	It is assigned to a higher education applicant who, when answering questions, showed comprehensive, systematic, deep knowledge of the program material, is able to demonstrate the knowledge provided at the level of creative use
9	Given to a higher education applicant who, when answering questions, showed complete knowledge of the program material provided at the level of similar reproduction, but made some minor mistakes
8	It is assigned to a higher education applicant who, when answering the question, showed complete knowledge of the program material provided at the level of similar reproduction, but made several minor errors or one or two major errors.
7	It is assigned to a higher education applicant who, when answering questions, showed insufficient knowledge of the basic program material to the extent necessary for further study and work provided for by the program at the level of reproduction, and generally coped with the task.
6-1	It is assigned to a higher education applicant who, when answering questions, revealed serious gaps in knowledge of the basic material, made fundamental mistakes
0	Given to the applicant in the case of a complete absence of an answer.

Lesson 6. Semester credit

CONTROL OF CONTENT MODULES

The control of the content module (CM1, CM2) is carried out at the last practical lesson of the study of the topics of the content module according to the calendar plan for the current academic year.

Only those applicants for higher education who have completed all types of work provided for by the curriculum (worked out all missed classes, etc.) are allowed to control the CM.

Control of content module 1.

A written questionnaire is a means of diagnosing the level of training of higher education applicants. The questionnaire consists of three theoretical questions (the higher education applicant is given from 0 to 5 points) and 1 practical question (the higher education applicant is given from 0 to 5 points). The maximum number of points that a higher education applicant can receive is 20, the minimum is 12.

Criteria for awarding points for answering a theoretical question:

Points	Grade criteria
5	Given to a higher education applicant who, when answering questions, showed comprehensive, systematic, in-depth knowledge of the program material, is able to demonstrate the knowledge provided at the level of creative use
4	Given to a higher education applicant who, when answering questions, showed complete knowledge of the program material provided at the level of similar reproduction, but made several minor errors or one or two significant errors.
3	It is assigned to a higher education applicant who, when answering questions, showed insufficient knowledge of the basic program material to the extent necessary for further study and work provided for by the program at the level of reproduction, generally coped with the task
1-2	Assigned to a higher education applicant who, when answering questions, revealed serious gaps in knowledge of the basic material, made fundamental mistakes
0	Assigned to an applicant in case of complete absence of an answer.

Criteria for awarding points for answering a practical question:

Points	Grade criteria
5	Given to a higher education applicant who, when answering questions, showed comprehensive, systematic, in-depth knowledge of the program material, is able to demonstrate the knowledge provided at the level of creative use
4	Given to a higher education applicant who, when answering questions, showed complete knowledge of the program material provided at the level of similar reproduction, but made several minor errors or one or two significant errors.
3	It is assigned to a higher education applicant who, when answering questions, showed insufficient knowledge of the basic program material to the extent necessary for further study and work provided for by the program at the level of reproduction, generally coped with the task
1-2	Assigned to a higher education applicant who, when answering questions, revealed serious gaps in knowledge of the basic material, made fundamental mistakes
0	Assigned to an applicant in case of complete absence of an answer.

Control of the content module 2.

A written questionnaire is a means of diagnosing the level of training of higher education applicants. The ticket consists of three theoretical questions (the higher education applicant is given from 0 to 5 points) and 1 practical question (the higher education applicant is given from 0 to 5 points). The maximum number of points that a higher education applicant can receive is 20, the minimum is 12.

Criteria for awarding points for answering a theoretical question:

Points	Grade criteria
5	Given to a higher education applicant who, when answering questions, showed comprehensive, systematic, in-depth knowledge of the program material, is able to demonstrate the knowledge provided at the level of creative use
4	Given to a higher education applicant who, when answering questions, showed complete knowledge of the program material provided at the level of similar reproduction, but made several minor errors or one or two significant errors.
3	It is assigned to a higher education applicant who, when answering questions, showed insufficient knowledge of the basic program material to the extent necessary for

	further study and work provided for by the program at the level of reproduction, generally coped with the task
1-2	Assigned to a higher education applicant who, when answering questions, revealed serious gaps in knowledge of the basic material, made fundamental mistakes
0	Assigned to an applicant in case of complete absence of an answer.

Criteria for awarding points for answering a practical question:

Points	Grade criteria
5	Given to a higher education applicant who, when answering questions, showed comprehensive, systematic, in-depth knowledge of the program material, is able to demonstrate the knowledge provided at the level of creative use
4	Given to a higher education applicant who, when answering questions, showed complete knowledge of the program material provided at the level of similar reproduction, but made several minor errors or one or two significant errors.
3	It is assigned to a higher education applicant who, when answering questions, showed insufficient knowledge of the basic program material to the extent necessary for further study and work provided for by the program at the level of reproduction, generally coped with the task
1-2	Assigned to a higher education applicant who, when answering questions, revealed serious gaps in knowledge of the basic material, made fundamental mistakes
0	Assigned to an applicant in case of complete absence of an answer.

**Head of the Department of
Biological Chemistry and
Veterinary Medicine, prof.**



Vira KRAVCHENKO