## CRITERIA AND PROCEDURE FOR LEARNING OUTCOMES EVALUATION

The study of the educational component takes place during one semester, ends with a semester credit, therefore, the final grade from the educational component is set on the basis of the current success rate of the student of higher education.

The evaluation of the current activity of the student of higher education is carried out during work in practical classes (control of theoretical training and practical skills) and during the control of content module 1 and content module 2 . The evaluation (in points) is reflected in the calendar and thematic plan of practical classes.

During work in classes, the control of theoretical preparation involves the answers of students of higher education to theoretical questions during the class and their testing at the end of the class; control of practical training - solving situational (calculation) tasks. The number of points that a student of higher education receives while working on a practical lesson ranges from 3 to 5 points.

| Evaluation criterion | The number of points <br> in the practical class |
| :--- | :--- |
| Theoretical training <br> - gave comprehensive answers to theoretical questions of the <br> teacher; <br> - showed a comprehensive and deep knowledge of theoretical <br> material on the topic, which are set out in the manual and <br> lectures on the topic of the lesson; <br> - demonstrates knowledge from additional literature on the topic <br> of the lesson; <br> - when testing gave correct answers to 90-100\% of test tasks <br> Practical training |  |
| - correctly solved all the calculated (situational) tasks provided for |  |
| by the topic of the lesson |  |
| Theoretical training |  |
| - answered theoretical questions with inaccuracies and errors, |  |
| which were eliminated with the help of the teacher; |  |
| - well mastered the theoretical material on the topics, which are |  |
| set out in the manual and lectures on the topic of the lesson; |  |
| - when testing gave correct answers to 75-89\% of test tasks |  |
| Practical training |  |
| - solved all the calculated (situational) problems provided for by |  |
| the topic of the lesson, but made mistakes in mathematical |  |
| calculations or when solving situational problems. |  |
| Theoretical training |  |
| - gave unconvincing answers to theoretical questions of the |  |
| teacher, with errors that he could not eliminate with the help of |  |
| the teacher; |  |
| - mastered the theoretical material on the topics that are set out in |  |
| the manual and lectures on the topic of the lesson, but |  |
| additional questions cause uncertainty or lack of stable |  |
| knowledge; |  |
| - when testing gave correct answers to $60-74 \%$ of test items |  |
| Practical training | 3 |

- solved $50 \%$ of the calculated (situational) problems provided for by the topic of the lesson, made mistakes in mathematical calculations or when solving situational problems.


## Theoretical training

- did not answer theoretical questions of the teacher;
- did not master the theoretical material on the issues of the topic, which are set out in the manual and lectures on the topic of the lesson;
- gave correct answers when testing less than 59\% of test items Practical training
- did not solve any of the calculated (situational) tasks provided for by the topic

Control of mastering content modules 1 and 2 (CM1 and CM2) is carried out in the last lessons, which Control of content modules 1 and 2 (CM1 and CM2) is carried out in the last classes of studying the topics of the content modules. The means of diagnosing the knowledge of students during the CM1 control are the preparation of test tasks and answers to theoretical questions; during the control of CM 2, it is the preparation of test tasks and the solution of calculation tasks. The conditions for admission to the control of content modules are the presence of a minimum number of points for taking the content module and for control of content module 1 (for control of content module 2).

| Content module | The minimum amount of <br> points | The maximum amount of <br> points |
| :---: | :---: | :---: |
| 1 | 15 | 25 |
| 2 | 15 | 25 |

The structure of the ticket for controlling CM 1:2 theoretical questions and 20 test tasks. Evaluation of the ticket for the control of CM 1: theoretical questions - 10 points, test tasks - 15 points

Assessment of test tasks: 1 correct answer is 1 point. 20 tests $\times 0.75=15$ points Evaluation of the theoretical question: 5 points

Evaluation of the theoretical question

| Points | Evaluation of the theoretical question |
| :---: | :--- |
| 5 | is assigned to the student whose question revealed a comprehensive, systematic, <br> in-depth knowledge of the program material, is able to demonstrate knowledge <br> provided at the level of creative use |
| $4-4,99$ | is assigned to the student if answers to questions a student found to have full <br> knowledge of the program material but made a separate insignificant mistakes |
| $3-3,99$ | set when answering the questions, the student revealed insufficient knowledge <br> of the primary program material to the extent necessary for further training and <br> work program <br> of the reproductive of reproduction; |
| $0-2,99$ | exposed, if the answer to the question, the student found serious gaps in <br> knowledge of the basic material, made a fundamental error |

The structure of the ticket for controlling CM 2: 2 calculation tasks and 20 test tasks.
Evaluation of the ticket for control of CM 2: calculation tasks - 10 points, test tasks - 15 points
Assessment of test tasks: 1 correct answer is 1 point. 20 tests $\times 0.75=15$ points Evaluation of the calculation task: 5 points.

| Criteria for evaluating the calculation task | Number of <br> points |
| :--- | :---: |
| The definition of the concept for each of the indicators that are <br> calculated is given <br> The correct formulas for the calculation of certain indicators are given <br> The correct course of the decision <br> Correct mathematical calculations <br> Complete substantiated answer with an explanation of the significance <br> of the obtained quantitative values of the indicators calculated | 5 |
| The definition of the concept for each of the indicators that are <br> calculated is given <br> The correct formulas for the calculation of certain indicators are given <br> The correct course of the decision <br> Correct mathematical calculations <br> Answer without explaining the significance of the obtained quantitative <br> values of the calculated indicators |  |
| The definition of not all concepts in relation to the indicators that are <br> calculated is given <br> The correct formulas for the calculation of certain indicators are given <br> The correct course of the decision <br> Correct mathematical calculations <br> Answer without explaining the significance of the obtained quantitative <br> values of the calculated indicators |  |
| Not all concepts are defined in relation to the indicators that are <br> calculated |  |
| The correct formulas for the calculation of certain indicators are given |  |
| The correct course of the decision |  |
| Mathematical calculations are not correct |  |
| Answer without explaining the significance of the obtained quantitative |  |
| values of the calculated indicators |  |
| The task is not solved |  |
| Not all concepts are defined in relation to the indicators that are <br> calculated <br> There are no formulas for calculating certain indicators <br> The correct course of the decision <br> Mathematical calculations are not correct <br> Answer without explaining the significance of the obtained quantitative <br> values of the calculated indicators <br> The task is not solved | 1 |
| The solution of the task is absent in the answer of the applicant of higher <br> education to the ticket on final modular control | $0-0,99$ |

Points from the educational component are calculated according to this ratio:

| Types of evaluation |  |
| :--- | :---: |
| Module 1 |  |
| Maximum number of points <br> (\% of the number of points per <br> module - for content modules) |  |
| Content module 1: <br> - evaluation of topics 2-6: work in classes (oral <br> survey, writing test tasks, solving situational tasks); <br> - supervision of content module 1 (evaluation of <br> topics 1-8): the preparation of test tasks and answers <br> to theoretical questions. | $50(50 \%)$ |
| Content module 2: <br> - evaluation of topics 9-12, 14-15: work in classes <br> (oral survey, writing test tasks, solving situational <br> (calculation) tasks); |  |
| - supervision of content module 2 (evaluation of <br> topics 9-16): the preparation of test tasks and the <br> solution of calculation tasks. | $50(50 \%)$ |
| Semester Supervision of Module 1 |  |

The individual work of applicants for higher education is evaluated during the control of knowledge at each lesson and during the content module supervision

The results of the semester control in the form of a semester credit are evaluated on a 100point, undifferentiated scale ("credit ", " not credited ") and on the ECTS scale.

Rating scale:
100-point scale, ECTS rating scale and undifferentiated two-point scale

| Total points <br> on a 100-point scale | ECTS scale | Evaluation on a non-differentiated <br> scale |
| :---: | :---: | :---: |
| $90-100$ | A |  |
| $82-89$ | B |  |
| $74-81$ | C |  |
| $64-73$ | D |  |
| $60-63$ | E | credit |
| $35-59$ | FX |  |
| $1-34$ | F | not credited |

