



**EKONOMICKÁ UNIVERZITA
V BRATISLAVE**

INTERNAL DIRECTIVE
OF THE UNIVERSITY OF ECONOMICS IN BRATISLAVA

No. 11/2022

**Methodology of the implementation of system for evaluating the
fulfillment of learning goals
at the University of Economics in Bratislava**

2022

The rector of the University of Economics in Bratislava (hereinafter also referred to as "EU in Bratislava" or "the university") issues this internal directive "Methodology for the implementation of the system for the fulfillment of learning goals at the University of Economics in Bratislava" (hereinafter referred to as the "methodology").

Article 1

Introductory provisions

1. The methodology for the implementation of the education system at the University of Economics in Bratislava (hereinafter "methodology" and "EU in Bratislava") was developed mainly to improve the level of achievement of learning goals in accredited study programs at the EU in Bratislava and the resulting positive effects for students and for teachers. The preparation and implementation of the education system is also one of the necessary conditions for EU in Bratislava´ obtaining and maintaining international accreditation, which is granted by the AACSB International.
2. The methodology applies to all study programs provided by individual EU faculties in Bratislava.
3. According to this methodology, the Assurance of Learning (hereinafter "AoL") system is implemented. AoL is a systematic collection, evaluation and use of information on the achievement of learning goals of individual study programs (not individual subjects), aimed at the continuous improvement of the level of achievement of these goals by students of the relevant study program. The implementation of AoL is done by all teachers who provide teaching within the relevant study program.
4. According to Article 11(7)(f) of the Rules for the Internal System of Quality Assurance of Higher Education at the University of Economics in Bratislava, the program Board is responsible for evaluating AoL, which at least once a year evaluates the fulfilment of selected learning objectives of the study program and proposes and implements measures to improve it. At the third level of study it does so in cooperation with the relevant sub-committee.
5. The evaluation of the achievement of the learning goals of the study program is not identical with the evaluation (scoring, grading) of students in the teaching of individual subjects. The differences are shown in the table.

Table 1 The differences between evaluation of learning goals on program level and grading

Evaluation of the achievement of learning goals	Evaluation of students in the teaching of individual subjects
A selected representative sample of students is evaluated.	Every student is evaluated.
The criteria and the required level of their fulfillment (expressed explicitly) are the result of the consensus of teachers participating in the teaching within the relevant study program.	The criteria and the required level of their fulfillment (which may or may not be explicitly stated) are determined by the relevant teacher.

Assessment can take place within individual subjects or outside subjects.	The evaluation is carried out within individual subjects.
The evaluation is divided into several relevant performance criteria.	The result of the evaluation is a grade (aggregate evaluation).
The result of the evaluation is acquainted with the teachers participating within the relevant study program and possibly also the students.	The student is provided with the result of the evaluation.

6. The AoL is organizationally and personally separated from the system of evaluation of teachers and the effectiveness of their teaching implemented, e.g., in the form of student questionnaires. Based on the information obtained within the AoL, managers may not take personnel / career measures against individual teachers for the following reasons:
 - a) teachers are heavily involved in the implementation of the AoL and this system must provide true and unbiased information;
 - b) AoL focuses on the collective success of teachers, which lies in the degree to which students achieve the learning goals of the study program, i.e. AoL is not focused on the performance of an individual teacher within a particular subject,
 - c) the aim of AoL is to collectively ensure the improvement of individual study programs and not individual teachers or individual subjects.
7. The study program offered in both full-time and part-time form must be considered as two different study programs for the needs of the implementation of some tasks within the AoL system.
8. The Vice-Rector for Education is responsible for the implementation of the AoL system at the university level, and the Vice-Dean for Education at the faculty level.
9. The person who has the main responsibility for the study program is responsible to the Vice-Dean for Education for the implementation of the AoL system within the relevant study program.
10. The Vice-Rector for Education shall appoint an administrator at the university level for the purposes of administrative support for the implementation of the system and the processing of information.
11. The Vice-Dean for Education may appoint an administrator at the faculty level for the purposes of administrative support for the implementation of the system and the processing of information.
12. The annexes to the methodology are:
 - Annex 1: Study programs focused on "business" - for the needs of the AACSB
 - Annex 2: Examples of setting learning goals and learning outcomes of the study program
 - Annex 3: Holistic rubric evaluation template
 - Annex 4: Analytical rubric evaluation template
 - Annex 5: Holistic rubric for student assessment form
 - Annex 6: Analytical rubric form for student evaluation

- Annex 7: Holistic rubric form for summary evaluation of a sample of students
- Annex 8: Analytical rubric form for summary evaluation of a sample of students
- Annex 9: Example of comparing the overall evaluation of a sample of students with the previous period, based on a holistic rubric
- Annex 10: Example of comparison of the overall evaluation of a sample of students with the previous period based on the analytical rubric
- Annex 11: Documentation of the study program for the needs of the implementation of the education provision system (AoL)
- Annex 12: Proposal of measures to improve the achievement of learning goals by students of the relevant study program, prepared on the basis of the evaluation carried out in the academic year
- Annex 13: Proposal of measures for the improvement of the AoL system, related to the relevant study program, prepared on the basis of the evaluation carried out in the academic year
- Annex 14: Report on the implementation of measures related to the relevant study program, which were implemented on the basis of the results of the evaluation from the academic year
- Annex 15: Proposal of measures for the improvement of the AoL system at the university level, prepared on the basis of the implementation of the system in the academic year
- Annex 16: Proposal of measures for the improvement of the AoL system at the university level, prepared on the basis of the implementation of the system in the academic year
- Annex 17: Report on the implementation of measures aimed at improving the AoL system, which was implemented on the basis of the results of the implementation of the system from the academic year

Article 2

AoL process

1. The AoL process comprises the following 3 phases, consisting of the following consecutive steps (graphical representation is in Fig. 1):

Phase I: System preparation

Step 1. Determination of learning goals and learning outcomes of the study program (Article 3).

Step 2. "Curriculum mapping" of the study program, in order to obtain an overview of which subjects enable students to achieve individual learning goals. If no subject allows students to achieve a certain learning goal, it is necessary to harmonize the structure of the study program, or the curriculum of selected subjects with learning goals, or revise learning goals (Article 4).

Step 3. Decision on the allocation of the measurement so as to ensure a representative sample of students (Article 5).

Step 4. Determination of measurement methods and performance standards (benchmarks) for individual learning goals, i.e. for the target percentage of students who achieve the relevant learning goal to the required extent (Article 6).

Phase II: Pilot measurement and measures

Step 5. Obtaining pilot data (Article 8).

Step 6. Analysis and evaluation of pilot data, including preparation of the report and familiarization of teachers (Article 9).

Step 7. Proposal of measures to improve the achievement of learning goals by students (Article 10).

Step 8. Implementation of improvement measures (Article 11).

Phase III: Second measurement and measures: "closing the loop"

Step 9. Data acquisition (Article 8).

Step 10. Analysis and evaluation of data and the system itself, and analysis and evaluation of the impact of the implemented measures, including the preparation of the report and familiarization of teachers (Article 9).

Step 11. Proposal of measures to improve the achievement of learning goals by students, or to improve the system itself, thus "closing the loop" (Article 10).

Article 3

Setting learning goals and learning outcomes of the study program (step 1)

1. Educational goals represent the intellectual and behavioral skills that students should acquire during the study in the relevant study program, i.e., they express expectations for graduates of the study program. Unlike learning outcomes (Article 3, par. 3 to 5), they are not measurable and are more general. Examples of learning objectives are given in Annex 3, part a).

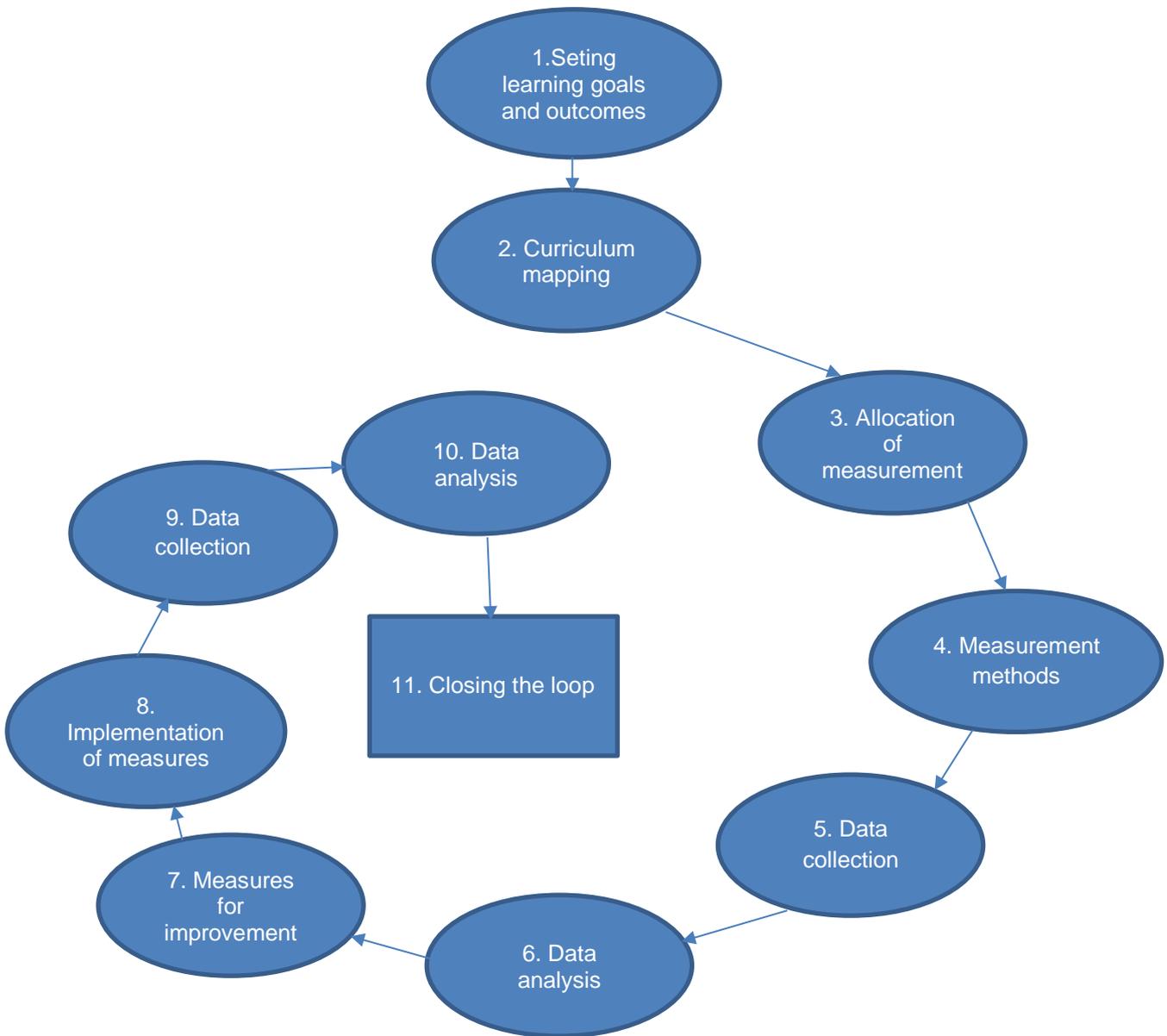
2. Learning objectives must be set and defined in such a way as to be consistent with the current EU mission in Bratislava. The derivation of learning objectives on the example of the EU mission in Bratislava valid at the time of issuing this internal directive are given in Annex 3, part b).

3. Educational outputs are a concretization of the relevant learning goal. They specify the observable behavior or results of students' work, which can be used to demonstrate the achievement of the relevant learning goal. They are **measurable** on the basis of rubrics (Article 6, par. 8 to 14) and serve as indicators of the achievement of the relevant learning objective.

4. Learning outcomes must meet the following characteristics:

- contain action verbs (e.g. identify, summarize, demonstrate, organize, express, analyze, distinguish, illustrate, create, define, classify, interpret, write, calculate, assess, report); an inappropriate verb is, for example - "understand";
- are formulated simply and concisely;
- describe "learning", do not describe "teaching", i.e. describe the student's activity, do not describe the teacher's activity (e.g. what the teacher should teach);
- describe the behavior of students, or the result of students' work, they do not describe the processes (e.g. which subject students should complete);
- are unitary: one learning outcome contains only one result;
- are clearly derived from the learning objective and the mission;
- are realistic, achievable and challenging.

Figure 1
Aol process



5. Bloom's taxonomy is an aid in formulating learning outcomes, which distinguishes 3 types of learning - cognitive (intellectual skills and abilities), affective (values and attitudes) and psychomotor (motor skills), classifying verbs for each type of learning into different levels of difficulty of demonstrating performance, from simple to demanding. Examples of the definition of learning objectives and learning outcomes are given in Annex 3, part c).

6. For each study program, the Program Board will determine a maximum of 4 learning goals, since it is not necessary or possible for these learning goals to include all the knowledge and skills expected from graduates of the study program. One learning output is formulated for each learning goal. In the case of study programs that are offered in both full-time and part-time forms of study, the learning objectives and learning outcomes are the same in both forms of study.

Article 4

"Curriculum mapping" of the study program (step 2)

1. The aim of "curriculum mapping" of study programs is to find out which compulsory subjects enable students to achieve individual learning goals, i.e. to acquire, deepen or apply the required knowledge and skills, and identify among them those compulsory subjects within which the achievement of individual learning goals can be best evaluated.

2. For the purposes of this methodology, the final thesis and the state final examination are considered as separate compulsory subjects, within which it is also possible to evaluate the achievement of the learning goals of the study program.

3. The person who has the main responsibility for the study program in cooperation with the members of the Program Board and the guarantors of compulsory subjects prepares a matrix of compulsory subjects of the study program, which contains information on what knowledge and skills are necessary to achieve individual learning goals students acquire, or demonstrate in individual subjects, with the following designation: O = students get acquainted, Z = students are directed to what is most important, P = students deepen knowledge, A = students apply, or N = not taught at all. The matrix must list all compulsory subjects of the relevant study program, including the final thesis and the final state examination.

4. In the case of study programs that are offered both full-time and part-time, only one matrix is prepared.

5. The structure of the matrix of compulsory subjects of the study program is given in the table:

Table 2: Matrix of compulsory subjects of the study program [name]

Faculty:				
Study program, degree of study:				
Compulsory subjects	[Learning Objective 1] *	[Learning Objective 2] *	[Learning Objective 3] *	[Learning Objective 4] *

[subject]	Z	N	N	N
[subject]	N	N	P	N
[subject]	N	O	N	N
...etc.				

Highlight in gray in which subject / subjects the achievement of individual learning goals will be measured.

6. Based on the matrix of compulsory subjects of the study program, the persons responsible for the study program, in cooperation with the members of the Program Board and with the guarantors of compulsory subjects for one learning goal, shall determine one, or a maximum of two subjects within which the achievement of the relevant learning objective will be measured. When selecting subjects, it is taken into account, in particular, the potential possibility of obtaining relevant results within the measurement of the achievement of learning goals. For example, it is appropriate to prioritize a subject in the last year of study in which students deepen their knowledge and skills over a subject in the first year of study in which they only become acquainted with the given knowledge and skills.

7. If the compilation of the matrix of compulsory subjects of the study program proves that no subject allows achievement of a certain learning goal, the person who has the main responsibility for the study program, in cooperation with the guarantors of compulsory subjects, will harmonize the structure of the study program or syllabus of selected compulsory subjects with learning goals, or revise the learning goals and outputs of the study program.

Article 5

Measurement allocation decision (step 3)

1. The person who bears the main responsibility for the study program in cooperation with the guarantors of compulsory subjects decides on the allocation of measurement.

2. The decision on the allocation of measurement is a decision on the selection of study groups of students in which the measurement of the achievement of individual learning goals of the study program will be carried out. The achievement of each learning goal of the study program can be measured on a sample of students of different compositions, i.e., it is not necessary to ensure that the sample of students is the same for each learning objective.

3. If the study program is offered both full-time and part-time, a decision on the allocation of measurement is made for each form of study separately.

4. When selecting study groups, care shall be taken to ensure that a representative sample of students enrolled in the relevant study program in the relevant form of study is provided. If the total number of students is more than 150, the sample should include at least 20% of students, if the total number of students is more than 30 and less than 150, at least 30 students, and for the total number of students less than 30 it should include all students.

Article 6

Determination of measurement methods and performance standards (step 4)

1. Within the AoL, a direct evaluation of the students' achievement of learning goals is carried out. Direct assessment is based on the knowledge and skills demonstrated individually by students. The results of students' teamwork, for which it is not possible to identify the individual contribution of individual team members, cannot be used for direct evaluation.
2. Indirect evaluation, i.e., expressing the opinions of individuals (students, graduates, employers, etc.) on the study program, or the teaching process, carried out through questionnaire surveys, interviews, etc., is not a necessary part of AoL, because it is a matter of measuring opinions, and not measuring the achievement of learning goals. Where appropriate, the results of the indirect evaluation may only be used as additional information to the results of the direct evaluation.
3. Direct assessment is performed by the teacher, not the student. The results of the mutual evaluation by the students are not acceptable within the AoL, with the exception of the evaluation of the learning goal focused on teamwork, in which it is permissible for the students to evaluate each other as well.
4. The evaluation of the achievement of the learning goals of the study program is not identical to the regular evaluation (scoring, grading) of students, within the teaching of individual subjects. The main differences are listed in Art. 1 par. 5.
5. Direct assessment is usually carried out in the framework of ensuring the teaching of individual subjects. Methods of direct measurement of students' achievement of learning goals include: evaluation of students' written work (including final work), papers, presentations, discussions, projects, case studies, exercises, written or oral exams, standardized tests, teacher records and observations.
6. It is sufficient to use one method of direct measurement for each learning objective. When using several methods of direct measurement, it is necessary to aggregate the obtained data.
7. In justified cases, the achievement of two or more learning objectives may be assessed using a single measurement method (for example, analytical skills, expertise and written expression may be assessed on the basis of a case study solution).
8. The tool of direct evaluation of the achievement of learning goals are rubrics that contain the criteria of student evaluation. The rubrics enable routine, systematic and thorough assessment of individual students.
9. Rubrics for individual learning goals are prepared by persons responsible for the study program in cooperation with the guarantors of compulsory subjects, or also with other teachers who provide teaching within the relevant study program, or with external experts (e.g. employers, graduates).

10. The evaluation template of the rubric sets out the performance criteria on the basis of which the achievement of the relevant learning objective is assessed. For each performance criterion, several performance levels are set, to which point values are assigned. The evaluation template of the rubric also includes:

- point intervals, which can be used to determine, based on the total number of points of an individual student, whether a given student exceeds expectations, meets expectations, or does not meet expectations,
- the required level of performance (performance standard, benchmark), which determines at what percentage of students who exceed the expectations, or meet expectations, the achievement of the relevant learning goal can be evaluated positively, i.e. state that the students are satisfactorily achieving the relevant learning objective.

11. Rubrics are usually in the form of a matrix. The two main types of rubrics are:

- The holistic rubric contains only a few performance criteria and performance levels described in detail. A holistic rubric evaluation template, including specific examples, is provided in Annex 4.
- The analytical rubric contains several criteria, as well as performance sub-criteria and simple performance levels. Compared to the holistic rubric, it is more detailed, but easier to fill out. The evaluation template of the analytical rubric, including specific examples, is given in Annex 5.

12. The rubric must have the following characteristics:

- performance criteria are formulated simply and unambiguously,
- it is simple and its use is time-saving,
- enables consistent evaluation of individual students by individual evaluators,
- enables consistent evaluation of an individual student by several evaluators.

13. In the case of study programs that are offered in both full-time and part-time forms of study, only one rubric is prepared for each learning objective, which is the same for both forms of study.

14. If the same learning goal (and possibly also the same or similar learning output) is defined at different levels of study of a given field, it is not possible to use the same rubric, even if different performance standards are set. When preparing the rubrics, it is necessary to carefully consider the specific expectations for graduates of individual levels of study.

Article 7

Approval of the study program documentation and its submission to the Vice-Rector for Education, publication of learning goals and learning outcomes

1. The person who has the main responsibility for the study program submits the complete documentation of the study program, prepared in accordance with Art. 3 (list of learning goals and related learning outcomes), Art. 4 (matrix of compulsory subjects), Art. 5 (allocation of measurement in the full-time form of study, allocation of measurement in the part-time form of study - if the study program is also offered in an external form) and Art. 6 (measurement tools, i.e. rubrics for individual

learning goals), for discussion and approval of the Program Board. After approval it is forwarded to the Vice-Dean for Education. The form for the preparation of the study program documentation is given in Annex 12.

2. The Vice-Dean for Education forwards the approved documentation of all study programs of the Faculty to the Vice-Rector for Education.

3. The Vice-Dean for Education ensures the publication of approved learning goals and learning outcomes in the Study Guide and on the Faculty's website.

Article 8

Data collection (step 5 or step 9)

1. On the basis of the rubric evaluation template, the person who has the main responsibility for the study program will prepare forms for the individual learning objectives, on the basis of which the evaluation of individual students will be carried out. The form of the holistic rubric for student evaluation, including a specific example, is given in Annex 6. The form of the analytical rubric for student evaluation, including a specific example, is given in Annex 7.

2. Data acquisition includes the evaluation of individual students within the study groups, included in the measurement according to Art. 5 on the basis of forms prepared according to Art. 8 par. 1.

3. The person who has the main responsibility for the study program is responsible for the evaluation of students. They entrust its implementation to the teacher or teachers of relevant groups of students in the subject within which, according to Art. 4, the measurement of the achievement of the respective learning goal is implemented. The completed evaluation forms of individual students are handed over by the teachers to the person who has the main responsibility for the study program, who will deliver them to the administrator at the faculty level after verification of completeness.

Article 9

Data analysis and evaluation, report preparation (step 6 or step 10)

1. The administrator at the faculty level prepares a summary evaluation of individual student samples on the basis of completed forms of evaluation of individual students. This will be carried out through a form for summary evaluation of a sample of students, which he prepares individually for each learning goal within individual study programs of the faculty. The form of the holistic rubric for the summary evaluation of a sample of students, including a specific example, is given in Annex 8. The form of the analytical section for the summary evaluation of a student, including a specific example, is given in Annex 9.

2. The administrator at the faculty level also prepares a comparison of the overall evaluation of the sample of students within the previous period. This will be put into a form, which he prepares

individually for each learning goal within the individual study programs of the faculty. In the case of those learning goals where the students' achievement is evaluated for the first time, the form in question is not prepared. An example of a comparison of the overall evaluation of a sample of students with the previous period on the basis of a holistic rubric is given in Annex 10, and an example compiled on the basis of an analytical rubric is given in Annex 11.

3. The administrator at the faculty level will forward the forms filled in according to Art. 9 par. 1 and par. 2, to the relevant person, who is responsible for the study program and who verifies their completeness and accuracy.

Article 10

Proposal for improvement measures and its approval (step 7 or step 11)

1. The person who bears the main responsibility for the study program in cooperation with the members of the Program Board, guarantor of compulsory subjects, or with other teachers who provide teaching within the relevant study program, analyzes the completed forms prepared by the administrator at the faculty level according to Art. 9 par. 1 and par. 2.

a) In the analysis of the form pursuant to Article 9 par.1, they identify those performance criteria where more than 50% of students have not met expectations, and compare the overall performance level achieved with the required level of performance.

--If deficiencies are identified (i.e. if more than 50 % of students have not met a certain criterion or if the required level of performance has not been achieved), they analyse their causes and propose measures to improve the fulfilment of individual performance criteria or to improve the achievement of the relevant learning objective. The measures target prospective students (i.e. not those students who have shown a lack of achievement level of learning objectives). Examples of such measures are: the inclusion of new subjects, the removal of certain subjects, the modification of existing subjects (e.g. content extension or deepening, inclusion of new online elements), alignment of several subjects, change of elective subjects, change of the order of subjects, reassignment of the subject to the higher grade, increase of the requirements and demands in the admission of students, change in the pedagogical approach, realization of activities which further teachers' education, implementation of new extracurricular activities, exclusion of the study program.

--In the absence of evidence of deficiencies, they propose some of the following measures:

--defining more demanding required performance criteria or increasing the required performance standard, while at the same time planning measures to meet these higher demands (examples of such measures are given in the first indent of point a),

--the replacement of the relevant learning objective with a new learning objective and the preparation of a plan for the implementation of the various steps of the AoL process pursuant to Article 2.

--The form for the preparation of draft measures to improve the students' achievement of learning objectives of the study program concerned is set out in Annex 13.

b) In the framework of the form analysis pursuant to Article 9 par. 2, they prepare a report on the implementation of the measures which were based on the results of the evaluation in the previous period, including an evaluation of the effectiveness of those measures. These are measures proposed

in the previous period pursuant to Article 10 par.1 a) and measures proposed in the previous period pursuant to Article 10 par. 2 a). The relevant progress report form is set out in Annex 15.

2. The person who bears the main responsibility for the study program, in cooperation with the members of the program Board and the guarantor of compulsory subjects, analyzes the AoL system and proposes measures to improve it. These may include the following measures:

a) measures relating to the relevant study program – e.g. revision of learning objectives or learning outputs and rubrics, change of strategy for the selection of students. The form for preparing the draft measures to improve the AoL system relating to the study program concerned is set out in Annex 14;

b) measures relating to the AoL system at the university level – for example, changes in the way teachers are involved, data processing and evaluation, information disclosure, process design and documentation. The form for the preparation of draft measures aimed at improving the AoL system at university level is set out in Annex 16.

3. The person who bears the main responsibility for the study program submits to the faculty management:

a) forms completed pursuant to Article 10 par. 1 a) and b) and Article 10 par. 2 a),

b) a form completed pursuant to Article 10 par. 2 b).

The person who bears the main responsibility for the study program is also invited to the faculty management meeting.

4. The Vice-Dean for Education shall forward to the Vice-Rector for Education:

a) summarised information from forms completed within the context of Article 10 par.1 a) and b) and pursuant to Article 10 par. 2 a), by persons with primary responsibility for individual study programs

b) summarised draft measures contained in the form completed within the Article 10 par. 2 b), by persons with primary responsibility for individual study programs

5. The Vice-Rector for Education prepares the following documents, which they submit for discussion to the EU leadership in Bratislava, and, subsequently for discussion and approval of the College of the Rector of the EU in Bratislava:

a) a proposal for measures aimed at improving the AoL system at the university level, prepared on the basis of documents obtained from individual education projects, pursuant to Article 10 par. 4 b). The form for this document is set out in Annex 17;

b) a report on the fulfillment of the measures aimed at improving the AoL system implemented in the previous period, including an evaluation of the effectiveness of those measures. The form for this document is set out in Annex 18.

Article 11

Implementation of measures (step 8)

1. The person who bears the primary responsibility for the study program in cooperation with the members of the program Board and the guarantor of compulsory subjects ensures the

implementation of measures approved under Article 10 par. 3 a) concerning the relevant study program.

2. The Vice-Rector for Education, in cooperation with the vice-deans for education, ensures the implementation of the measures approved under Article 10 par. 5 a) concerning the AoL system at the university level.

Article 12

Preparation of the AoL implementation progress report

1. The Vice-Rector for Education, in cooperation with the administrator at the university level, prepares a report on the progress of the implementation of the AoL system for the past academic year, which he submits for discussion to the EU management in Bratislava, and, subsequently for discussion and approval of the College of the Rector of the EU in Bratislava.

2. The report on the progress of the implementation of the AoL system, or its selected parts, is part of the annual report regularly sent by the EU in Bratislava to AACSB International as part of the international accreditation process.

Article 13

Final provisions

1. This internal directive enters into force and effect on January 1, 2023.
2. Upon the entry into force and effect of this Directive, it shall cease to be valid and effective the internal directive 6/2021.

Bratislava 14.12.2022

prof. Ing. Ferdinand Daňo, PhD.

rector
