Modernization and harmonization of Toursim study programms in Serbia

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Work package 2	**Activity 2.2 Tuning outcomes and competences of existing programs in line with current market needs**

METHODOLOGY FOR DEVELOPMENT AND IMPROVEMENT of study programs within the implementation of Tempus project MHTSPS

Authors:

Milutin Duričić, PhD, Professor of Professional Studies	Milan Antonijevic PhD, Associate Professor
Miloš Jovanović, PhD, Professor of Professional Studies	Michael Koniordos PhD, Associate Professor
Ramona Suharoschi PhD, Associate Professor	Dragan Stojanović, MSc, Lecturer
Tamara Gajić, PhD, Professor of Professional Studies	Marija Mandarić, PhD, Assistant Professor
Nataša Benić,	Dragica Samardžić
Miroslav Radjen	

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PROJECT TASK

Activity 2. 2. Tuning outcomes and competences of existing programs in line with current market needs

The description of the project task: develop a methodology of adjusting the existing curricula in line with current market needs. Make a plan that the experts from Serbia and partners from EU higher education institutions define the new structure of undergraduate and graduate study programs. Provided hat the structure of curricula is designed in accordance with the best educational practices in the EU in the area and obtained information about the real needs of the tourism market.

Create the basis for the existing and new curricula modification and development so as to ensure the adequate competence of graduates in accordance with the actual needs of the tourist market.

The description of the outcome: This report is the result of joint work of project team composed of representatives of all partners at higher education institutions from Serbia.

METHODOLOGY FOR IMPROVING STUDY PROGRAMS WITHIN THE IMPLEMENTATION OF TEMPUS PROJECT MHTSPS

INTRODUCTION

The quality standards in higher education undertake the higher education institutions to adopt procedures which would develop and adopt programs of study. The Higher Education Act and bylaws are also engaged in this issue. Standards promote new European concepts of higher education, and law focuses on the formal requirements that study programs must meet to be accredited. This methodology has been created with the aim to unite the requirements of laws and standards, to supplement them with the necessary explanations and thus facilitate the development teams, preparation and revision of study programs. It represents a direct contribution to improving quality. Much attention is a framework of qualifications and learning outcomes, as well as the most valuable results of the Bologna process, which in our country has not yet experienced the particular application. The first part contains the basic principles, as well as a number of recommendations for the development of curricula that comply with the requirements of higher education of the 21st century. The second part defines the process and determines certain criteria and norms that must be followed in preparing the study programs, which should be understood as a means of achieving the objectives set out in the first part of the text, but will be flexible in order not to endanger the freedom and creativity of the academic staff.

1. Principles

Towards a European Higher Education Area, it is necessary to adopt and implement all positive principles. Study programs should be based on the following principles:

- openness to the public and the citizens,
- compliance with the needs of society and the labor market,
- compliance with the mission and strategy of the University or High School,
- student in the center of the teaching process,
- improving of mobility,
- lifelong learning,
- ensuring quality and continuous improvement.

1.1. Openess to the public and the citizens

Expansion and free access to information should provide the prospective students an easier choice, and to the graduates the employment or further studies. In order to do this, the study programs must clearly describe the competencies, curricula, development, rules etc. Accordingly, objectives and learning outcomes of the study program must be defined in time and made available to all stakeholders (students, their parents, employers and public services).

1.2. Compliance with the needs of society and the labor market

Development of study programs may be done only on the basis of clear evidence about the needs of society and the labor market. Profile of qualifications that are acquired through completion of the study should be based on an identified and recognized need of the society.

1.3. Compliance with the mission and strategy of the University or High School (HEI)

Connectivity and compliance of the performed activities must be achieved at universities or high schools as well as the documents that are used. In this sense, objectives and learning outcomes of the study program must reflect the mission and vision of HEIs and be consistent with its strategy.

1.4. Student at the center of the teaching process

Study programs are facing the student, whose needs must be at the center of the teaching process, which represents a new approach to education. The teacher's role is expanded with new tasks. A teacher needs to recognize the educational needs of students and to guide and monitor the realization of these needs. The main goal must be the student's progress in all forms of education, both in the professional, for discipline-related knowledge and skills, and in general, the so-called "soft" skills like in foreign languages, information technology, communication skills, teamwork, critical thinking, etc. It is very difficult access, even for many developed countries. It requires new forms of teaching and learning, and effective support structures and leadership that will ensure the personal development of each student in particular supporting their needs and interests and the development of a student`s inclinations and talents. This carries serious implications for curricula, its content, methods of implementation and assessment system. They must be reformed in terms of development outcomes and providing flexible learning pathways that are focused on an individual. This new and very difficult task can not be a one-off but a continuous process that will lead to better results in the study.

1.5. Enabling Mobility

Enabling Mobility is one of the key elements of the Bologna process, which means that a substantial period of study, semester or trimester, is spent abroad at a university or in practice. The importance of this concept is illustrated by the fact that European education ministers set a goal at a meeting in Leuven in 2009 that by 2020 year at least 20% of "mobile" students will be achieved. Mobility is also required by teachers and researchers, not only from students. It is believed that mobility will increase the quality of study programs and research that will advance the development of personality, employment, and international cooperation of individuals and institutions. Mobility is an opportunity to reach the limits of current knowledge. Conduct of joint studies with foreign universities and embedding of "mobility windows" in the curricula represent the most practical solution for increasing mobility.

1.6. Lifelong learning

Lifelong learning is a voluntary concept in which the knowledge and ability can and must be gained at all ages from pre-school age to retirement days.This allows individuals to renovate, expand and improve their basic knowledge and thus adapt to varying requirements of the labor market. In the knowledge society it is the only way not to lose pace with new technologies, methods and organization of work. Lifelong learning includes all forms of learning: formal, non-formal (such as the acquisition of vocational skills in the workplace) and informal (spontaneous learning, self-learning, learning from others). HEIs must adopt policies and build the organizational structure to support flexible learning paths that include special studies, seminars, training and workplace learning, and recognition of previously acquired knowledge, based on learning outcomes, regardless of how the data acquired knowledge. The

prerequisite for this flexible approach is a powerful quality assurance system and without its establishment, the concept of lifelong learning can not be applied.

1.7. Ensuring quality

The teams for the development of new study programs must pay special attention to quality assurance. To this end, within the framework of the TEMPUS project HEI will implement quality assurance procedures adopted in the framework of implementation of activities 2.1., which is in accordance with EU practice [1].

2. REFERENCE PROCESSES AND WORK

Dominant influence on the shaping of the modern approach to the development and improvement of study programs have European integration and the Bologna process, which produced a series of documents and instruments that direct the construction, improvement and description of study programs:
– Framework for Qualifications in the European Higher Education (QF_EHEA)[2],
– European Qualifications Framework for lifelong learning (EQF)[3],
– Convention on the Recognition of Qualifications concerning Higher Education in the European Region (Lisbon Convention)[4] ,
– Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG)[5]

Although the standards for quality assurance of study programs deal with issues of quality assurance of all the activities and resources of higher education institutions, they have the ultimate aim of "the quality of academic programs and the related qualifications". One of its chapter deals with procedural issues relating to the development and revision of study programs.

3.INSTRUCTIONS AND RECOMMENDATIONS

This chapter provides an overview of elements that a good curriculum should have and gives some guidance on how to elaborate these elements.

3.1. Compliance with the needs of society and the labor market

This question should be processed within the development of feasibility study of the study program. Program and qualifications which it provides must be based on the identified needs of society and based on this to establish a study program and define the profile of qualifications. When editing existing curricula, the existing study program objectives and characteristics of appropriate qualification

[1] Uvod u usaglašavanje (tuning) obrazovnih struktura u Evropi – doprinos univerziteta bolonjskom procesu http://www.unideusto.org/tuningeu/images/stories/documents/General_broch ure_Serbian_version_FINAL.pdf
[2] The framework of qualifications for the European Higher Education Area, Bergen Conference of European Ministers Responsible for Higher Education, May 2005. http://www.bolognabergen2005.no/EN/BASIC/050520_Framework_qualifications.pdf (30.06.2011.)
[3] The European Qualifications Framework for Lifelong Learning (EQF), European Commission, 2008. http://ec.europa.eu/education/pub/pdf/general/eqf/broch_en.pdf (30.06.2011.)
[4] Convention on the recognition of qualifications concerning higher education in the european region, Council of Europe, Lisbon, 1997. http://www.bolognaberlin2003.de/pdf/Lisbon_convention.pdf (30.06.2011.).
[5] Standards and Guidelines for Quality Assurance in the European Higher Education Area, European Association for Quality Assurance in Higher Education, Helsinki, 2005. http://www.ond.vlaanderen.be/hogeronderwijs/bologna/documents/Standard s-and-Guidelines-for-QA.pdf (30.06.2011.)

profile should be revised. When it comes to the justification of introduction, the objectives of the program profile, qualifications can not be considered separately because only when the program is described in details in terms of offered knowledge, skills and competencies, can be seen its alignment with the needs of society and the labor market.

3.1.1. The objectives of the study program

The objectives of the study program are general statements about what is going to be achieved by the introduction of a study program. They are written by teachers in order to explain the needs of society, the academic community and the labor market for the given profile. In determining the objectives, the following strategies and opinions should be considered:

- development forecasts in a given area
- development trategy,
- requirements of relevant ministries,
- requirements of commerce, professional associations and the like,
- development Strategy of the university or college,
- opinions of both teachers and students on study programs and
- the views of experts from all areas of work related to the study program.

3.1.2. Profile Qualifications

Profile qualifications contains information for enterprises, public institutions, other higher education institution and any other interested parties about the knowledge, skills and competencies that a person who completes the given study program possess. Profile of qualifications includes a description of the main features of the program: which level, how long, how it fits into the structure of academic disciplines, what are its learning outcomes, and which skills and competencies are planning to develop by the program. It includes activities, tasks and roles that the person who successfully completed studies and gained diploma will be able to carry. It should take into account the recommendations of professional associations that the program recognizes. The profile includes the formal name of the profession if it coincides with the existing titles and profiles. You must submit a new title, and explain the need for its introduction if the profile is for something new.

3.1.3. Learning outcomes

Learning outcomes are explicit statements of what a student is expected to know, understand and be able to do upon completion of a given cycle studies [6] . The learning outcomes must be described not only in the form of stored knowledge that a student can repeat, but, before that, in the form of specific abilities and skills and attitudes which the government adopted. They must be in a form suitable for verification and evaluation. The main reference points for the description of learning outcomes are qualification frameworks. Dublin, generic descriptors are built on the following elements:

a) knowledge and understanding,
b) application of knowledge and understanding,
c) making judgments,
d) communication skills and
e) learning skills.

[6] ECTS Users' Guide, European Commission, 2009.

Cycles vary in complexity and depth of knowledge and understanding, the degree of independence and creativity, according to general cognitive skills, sophistication of practical skills, the approach to solving problems and etc. Introduced relationship (hierarchy) between cycles worth no matter on qualification profile .

Qualifications that signify completion of the first cycle (180 to 240 ECTS credits) are awarded to students who:

a) knowledge and understanding:

In their field of study demonstrate knowledge and understanding that builds upon their secondary education, and is typically at a level that, with support advanced literature, includes some aspects that are based on the most advanced achievements in the field of study;

b) application of knowledge and understanding:

the knowledge and understanding can apply in a manner that indicates a professional approach to their work or vocation, and have competences typically demonstrated through development and present their arguments and solving problems in this field of study;

c) making judgments

have the ability to gather and interpret relevant data (usually within their field of study) to make judgments including a review of relevant social, scientific and ethical issues;

d) communication skills:

can communicate, give information, share ideas, problems and solutions to addressed, and the uninitiated audience;

e) study skills:

have built with a high degree of autonomous learning skills they need to take further steps in education.

Qualifications that signify completion of the second cycle (60 to 120 ECTS credits) are awarded to students who:

a) knowledge and understanding of:

in their field of study demonstrate knowledge and understanding that the foundation has, and extends and / or enhances what is usually associated with the first cycle and that provides a basis or opportunity for originality in developing and /or applying ideas, often within a research context;

b) application of knowledge and understanding:

can apply knowledge and understanding and problem-solving skills in new and unfamiliar situations within broader (or multidisciplinary) contexts related to their field of study;

c) making judgments

have the ability to integrate knowledge and cope with complex problems and formulate judgments based on incomplete or limited information, and with the reflections on social and ethical responsibilities related to the application their knowledge and judgments;

d) communication skills:

Can communicate and make their conclusions, and the knowledge and reasoning on which the conclusions are based, as addressed and uninitiated audiences, clearly and unambiguously;

e) learning skills:

Have the learning skills that enable them to continue to study in a manner that is generally s self and independent.

Qualifications that signify completion of the third cycle are awarded to students who:

a) knowledge and understanding of:

in their field of study indicate a systematic understanding and command of skills and methods of scientific research related to the area;

b) application of knowledge and understanding:

demonstrate the ability to design, perform and modify significant research work in accordance with scholarly integrity;

c) Original research:

through original research have made a contribution to push the boundaries of knowledge by performing a significant volume of work that deserves to be published in the national and international reference publications;

d) making judgments:

are capable of critical analysis, evaluation and synthesis of new and complex ideas;

e) communication skills:

in their field of expertise can communicate with their peers, the larger scholarly community and with society;

f) the dissemination of knowledge skills and technologies:

are able to promote technological, social and cultural achievements, both academically and in a professional context.

Good orientation can be achieved by studying the descriptions of individual occupations or occupational groups that have been made by the "Tuning" project, where a consensus was reached on what constitutes the essence of the individual study areas. Of the 85 selected generic competencies, the most important are shown as follows:

- a capacity for analysis and synthesis,
- learning ability,
- the ability to solve problems,
- the ability to apply knowledge in practice,
- the ability to adapt to new situations,
- care about quality,
- management skills
- information,
- the ability to work independently,
- teamwork,
- the ability to plan and organize,
- oral and written communication in their native language,
- interpersonal skills.

Among the learning outcomes of the study program certainly need to find some of these competences. How to write good learning outcomes of the study program? Learning outcomes can be developed by providing grounded answers to the question:

What student needs to achieve?

"What" refers to the knowledge and understanding of the field of intellectual, professional skills and general ie. transferable skills and their application in practice.

In the statements of the learning outcomes of the study programs in the Republic of Serbia, we can find tge following formulation of completeing the sentence, such as:

- This program is specific as it develops ...
- The most important value of this program is...
- Academic content of the program focuses on ...
- After completing the program, the student will demonstrate knowledge and understanding of ...
- After completion, the student will be able to ...
- The most important intellectual skills that are developed by this program are ...
- The most useful practical skills, techniques and skills that are developed are ...
- Upon completion of the program, the student will achieve the following competences ...

3.1.4. Consultations with the interested parties

Preliminary description of qualifications must pass the test of compliance with the needs of the environment and society as a whole. By collecting opinions from competent experts and employees' and employers' experience, we can achieve the adjustment and development of a study program that will serve its purpose. The same applies for existing profiles. To continue organizing studies, there must exist a need for a given profile and the program must respond to the actual or future needs of the environment. In developing tourism study programs, one has got to take into account students' future. Interested parties should be identified among representatives of companies and institutions (departments, agencies, chambers, etc.), professional associations, employed and unemployed graduates. Opinions of experts from other universities and experts from research institutes will be highly valued. And the general opinion of the public, obtained via some form of surveys can be rather useful. How can we harmonize our study programs with the needs of the labor market?

- With an analysis of the labor market, including estimates on future trends and needs.
- By collecting feedback on the relevance of a given profile from all relevant parties: Statistical Institute and National Employment Service, former employees and unemployed students, enterprises, institutions and public authorities.
- Adjusting the profile to the labor market needs. By reconstructing a profile so it becomes a driving force for job creation in the case of supersaturation of labor markets.
- By setting academic standards for the qualification.
- By including employers and former students in advisory committees which will propose certain modifications of study programs.

A possibility for employment is an important question. It is a problem over which not only students should worry but higher education institutions as well and they should see to this problem. "At times of increased public responsibility, no institution should allow itself the luxury to produce graduates which are unfit for the labor market!"[7] [Gehmlich, V., 2008]. Authentic analysis of needs can be achieved only with the help of all parties, with collecting feedback on the relevance of the qualification profile. In order to determine the possibility of employment, a market research must be carried out and the results of that research need to be submitted in the form of facts that can be easily checked.

3.2. Compatibility with the mission and strategy of a University or Higher School

A study program needs to be in line with society needs as well as with a higher education institution's strategy. This is the best was to ensure an administrative and financial support to a study program's development.

3.3. Curriculum

A study program's curriculum should be produced on a prescribed form of a curriculum, in accordance with Standard 5: Curriculum[8]according to which the accreditation is performed and according to an Adopted quality assurance procedure.

3.4. Recommendations for curriculum development in accordance with new ideas

[7] Gehmlich, V., Gibbs, A., Markeviciene, R., Mitchell, T., Roberts, G., Siltala,A., Steinmann, M., (2008) Yes! Go! A Practical Guide to Designing Degree Programmes with Integrated Transnational Mobility, DAAD, http://eu.daad.de/eu/mocca/06493.html

[8] Допуна Стандарда за акредитацију високошколских установа у оквиру одређеног образовно-научног, односно образовно-уметничког поља, Службени гласни РС, број 106, мовембар 2006.год.

A good curriculum is imbued with the enacted principles whose application must be quite elaborated. Development teams should create concrete solutions through which they will be express their expertise, skill and inventiveness.

3.4.1. Curriculum mobility

A key condition for developing mobility is a good structure of a study program. It is achieved by defining learning outcomes, mainly of one-semester courses, by evaluating items per ECTS, by continuous monitoring and evaluation of the work, etc. A curriculum should have a so-called mobility window. This implies for a curriculum to have set a semester (or a year) in which studying abroad would be most appropriate. That semester should then be for those subjects whose learning outcomes could be easier to achieve abroad (for example language courses, international and comparative studies, supplementary and elective courses, students practice etc.). Foreign institutions and study programs in which the intended learning outcomes could be achieved should also be identified. The learning outcomes may be similar, complementary or coherent, but the content need not be identical. Whichever approach adopted, it must be "student-centered." An agreement on cooperation which would include student exchange needs to be signed with the selected institution

3.4.2. Flexibility of a curriculum

The flexibility of a curriculum should be seen in the context of providing more opportunities for students to independently create a study path and with that its qualifications. Taking into consideration the needs and interests of students and the development of prominent skills a student possesses maximizes his/her capacities. The basic mechanism for achieving flexibility in the classification of courses on compulsory and elective courses. Compulsory courses are used for mastering the basic knowledge that all students must possess in a certain area, and electives allow students to focus on a specialization in that field. Therefore, in the first years of study compulsory courses are predominant, and in the later years number of elective courses is greater. Among the electives two subgroups (types) of them can be created: limited (conditional, directed) electives and free (clean) electives.

Limited electives are chosen from the offered list of courses. They allow controlled specialization, in the field of study. The curriculum should include courses that are from any program university or a higher school has. Elective courses should serve the purpose of specialization, and with them a multidisciplinary character of the study program is achieved. They are a means for acquiring transferable (soft, personal) skills and an amplifier of talents and gifts. In the future, we can expect a greater number of elective courses, thus enabling students to create a study program that suits their needs and skills. Then the student takes on certain responsibility. Some of the numerous elements that put the student at the center of the teaching process are the following: encouraging interactive teaching, partial assessment tests, student practice, project development, electives etc.

3.4.3. Student practice (practical training)

It is an opportunity to acquire knowledge in working conditions and develop professional competencies (professional development). Tasks performed in a workplace should be complementary to what is learned in the school. Aim:

- Acquiring knowledge on particular technology, models and work techniques,
- Improvement of skills needed at a workplace,

- Development of new skills which enable easier employment (such as teamwork, use of technology and problem-solving skills)
- An opportunity to develop skills gradually: from simple to complex ones,
- Evaluation in real life situations,
- Forming of opinion on the relevance of a study program for a particular position, etc.

When student practice is obligatory, it must leave its mark in the learning outcomes it must be taken into account when determining student workload and must be allocated certain amount of ECTS credits. ECTS credits can be awarded only after proper verification and assessment of the learning outcomes achieved. Of course, the assessment methods should be tailored to the nature of the workplace (for example, observation and evaluation by the mentors, preparation of reports by student, demonstration of individual skills and knowledge, solving specific problems, etc.). Agreement for student placement in a practice setting signed between universities or high schools, students and employers should specify the learning outcomes that are to be achieved. Also, clear procedures for assessment of learning outcomes and allocation of credits should be determined. The roles of those signing the agreement, in the process of specifying, achievement and evaluation of learning outcomes have to be clear. Even when student practice program is not obligatory and the student has completed the program on its own, this activity should be taken into account, and in some way acknowledged, at least by specifying it in the student's record, in the Diploma Supplement Transcript etc.

3.4.4. Student volunteering

A curriculum may specify an opportunity to achieve certain learning outcomes through volunteering in accordance with the Regulations on the evaluation of student volunteering. Regulations specify two types of volunteering: a) skilled volunteering and b) volunteering in socially useful activities. The first type should primarily be directed at achieving the professional and the other on the achievement of general knowledge or skills.

3.4.5. ECST credit allocation

ECST credit allocation should be based on the weight of a course in terms of workload that a student needs to invest to achieve the intended learning outcomes of a course, in the formal sense. The total number of points allocated to a qualification should be assigned to individual courses in proportion to their share in the total workload required to achieve the planned outcomes of a study program.

Before allocating ECST credits to individual subjects an agreement on the profile of a given study program and the prescribed learning outcomes should be reached. What needs to be determined is which of the disciplinary subjects are crucial for certain qualifications. It is good practice to consult the relevant parties. It is wrong to allocate credits merely on the basis of the number of hours of direct teaching. Total amount of hours necessary to achieve the intended learning outcomes must be observed and it consists of:

- number of hours of direct teaching,
- the time needed to prepare for teaching and to produce teaching assignments (preparation and arrangement of materials used in classes, exercises or practice; writing essays, project development and writing of term papers; collecting and studying additional materials; practical work outside the hours prescribed in the curriculum, etc.),
- the time required for preparation of the exam and the final exam.

In Serbia, the principle of annual student workload is of 60 ECTS within a 40-hour work week. Starting from the academic calendar of higher education institutions, one can conclude that the total annual student workload is 1800 hours per year, so that the indicative number of hours of student workload corresponding to one ECTS is 30. Thus, a subject that is allocated 5 credits, involves 150 hours of work including direct teaching. Suppose that the number of hours of classes or a course is 2 + 2 = 4 hours. 15 weeks (number of weeks a semester lasts) means 60 hours a student is to spend in classes. The student would then be left with 90 hours or just over 2 weeks for independent work and exam preparation. That includes the time a student has spent working on this subject during the period of instruction. If an average student can learn all such a subject prescribes for 90 hours (including learning during school hours), then ECTS credits are assigned well.

During the teaching process, a number of assigned ECTS points should be adjusted with the actual workload on the course. This should be carried out within the internal quality assurance procedures. Whichever method is used, student opinion and that of the teaching staff must be taken into account. Information on the progress and percentage of students that passed an exam are also important indicators. In the case of a large discrepancy between the estimated and actual workload, a revision of ECTS, learning outcomes or teaching techniques and learning should be performed.

3.5. Subjects' curricula

CAQA prescribed form can be used for subjects' curricula. It contains data on number of hours for certain forms of instruction, prior requirements for subject enrollment, subject's objectives and learning outcomes, a short summary, teaching methods and learning methods, subject literature, methods of assessment and evaluation.

3.5.1. Course objectives

Course objectives are brief statements about the place and role of subjects in the curriculum, related to other subjects and academic standards. They are mainly written from a teacher's point of view to show the general content of a subject.

3.5.2. Learning outcomes of a subject

Most of what has been said for writing learning outcomes for the qualification counts for an individual subject. The learning outcomes of individual subjects contribute to the learning outcomes of a study program. Some believe[9] that a particular subject should not include more than six to eight learning outcomes. Too broad learning outcomes[10] are difficult in term of evaluation, and too narrow would jeopardize the ability to process comprehensive questions. Although knowledge acquired in obligatory subjects are not transferred fully to the final competencies, learning outcomes of those subjects must be given in order to establish a clearer link with the content, teaching methods and assessment.

The learning outcomes of each course must appear somewhere, if not as the final competencies of a study program, then as a precondition for some subject that appears later on. It takes a time to write good learning outcomes as ill-conceived learning outcomes, those which are merely mechanically stacked competencies, can be detrimental to education. A series of recommendations for the formulation of good outcomes and what to avoid is given in [Stefan, A., 2011, p. 34-35]. One should avoid vague expressions,

[9] Uvod u usaglašavanje (tuning) obrazovnih struktura u Evropi – doprinos univerziteta bolonjskom procesu http://www.unideusto.org/tuningeu/images/stories/documents/General_broch ure_Serbian_version_FINAL.pdf

[10] Stephen Adam, (2011), Водич добре праксе за израду наставних планова и програма, Заједнички пројекат Савета Европе и Европске Уније 2009-2011: Јачање високог образовања у Босни и Херцеговини (SHE III),

those being hard to evaluate (such as "understand", "familiar with", "is aware of " and the like). Instead, it is recommended to use active verbs. Here are a few examples[11] [Kennedy, D., 2006]:
After a successful completion of this course, students will be able to:

- describe how and why the laws change and how this affects the society,
- specify criteria that must be taken into account in the treatment of patients suffering from tuberculosis,
- classify reactions to that of exothermic of and endothermic nature,
- predict how temperature changes affect the equilibrium state,
- summarize the causes and consequences of the October Revolution).

Many more examples can be found in [Kennedy, D., 2006].

3.5.3. Subject contents

Course content should be given in the form of main topics that indicate areas of study. Such a description allows flexibility in terms of introduction of new, innovative methods of teaching and learning. Precise specification of contents of each class creates a crude content that limits creativity and innovation in teaching.

3.5.4. Teaching methods

When the learning outcomes that can be evaluated are set, one should consider how they will be conveyed to students and how is one to assess whether they have been and at what level adopted by the students. It takes a lot of skills to achieve harmony between learning outcomes, teaching methods, techniques, assessment and evaluation criteria. This is how transparency is achieved. (One way for students to figure out how to adopt certain learning outcomes is that they are offered an explanation what techniques and evaluation criteria are used). Clearly outlined learning outcomes need adequate teaching methods that will ensure that the set outcomes are achieved. Several methods of teaching and learning which should be considered are lectures, exercises, lab work, tutorials, field work, practice programs outside the school, seminars, teamwork, group presentations and so on. Designing the most appropriate teaching method requires a lot of skill and experience. Knowledge and understanding of an issue can be achieved through lectures and seminars. The ability to analyze, perform synthesis and problem-solving skills are most developed via specific tasks or projects, through group work such as seminars or tutorials in laboratories, workshops, and via field work. Practical skills are developed in a workshop, laboratory or on a field.

3.5.5. Evaluation and assessment

Evaluation and assessment have to be consistent with the learning outcomes. They have to be their mirror, designed with the aim to determine whether learning outcomes are achieved or not. Whether the set outcomes will be achieved, depends, to a large extent, on the content and form of assessment. A student perceives the subject content through the exam content and will learn mainly what is being tested. Still, it is not good that the assessment is focused only on determining what a student achieved in the end (so called summative approach). Assessment should be a means of obtaining feedback. That information should then be used for forming favorable teaching and learning environment (so called formative

[11] Kennedy, D., Hyland, A., and Ryan, N. (2006) 'Writing and Using Learning Outcomes: A Practical Guide' in: EUA, Bologna Handbook. Making Bologna Work. Berlin: European University Association. http://www.bologna.msmt.cz/files/learningoutcomes.pdf

approach) [Kennedy, D., 2006]. This leads to a conclusion that student assessment tests should be carried out continuously.

In practice, this often comes down to a few summative tests, when students receive grades but not feedback. Continuous assessment of knowledge needs to combine formative and summative approaches through which a feedback for both teacher and student is provided so that activities used in the teaching process are altered. It takes a lot of efforts to come up with meaningful assessment techniques and evaluation of acquired knowledge and skills a student possess. In theory, there exist direct and indirect techniques. Examples of direct techniques are: written exams, tests, project development, essays, presentations, lab demonstrations and practice; and indirect: survey of employers and former students, analyses of exam results and achieved progress, comparison with other institutions, etc.

3.6. Concordance with study programs of other higher education institutions

Accreditation Standards require a "proof of a study program's concordance, for the most part, with at least three study programs performed at accredited higher education institutions in the signatories of Bologna Declaration." The proof for this is university data i.e. data on what study program is the one with which a study program that is accredited is aligned. For each program, a Web site on which a program is to be found can be stated, or a hard" copy of the program with reference to which one can verify its authenticity can be enclosed. However, it must be noted that concordance is not be strictly followed. This is contrary to the spirit of "Bologna". It is precisely the idea of the diversity that is supported in Europe, and therefore Europe supports the various missions of higher education institutions and different profiles of their study programs. As for the demands placed on European higher education institutions, they relate to the public and comparability[12].

It is wrong to define comparability as concordance. When it comes to qualification profiles, diversity is more an advantage than a disadvantage. This, more than to others, applies to vocational studies. Delineation of professional, practice-oriented profiles should be aligned with the current society needs, and social needs and demands are very varied. In the EHEA context, the programs are compared according to the level of knowledge and skills, according whether they belong to the same cycle, according to whether their learning outcomes comply with cycle descriptors in the European or national framework of qualifications. Learning outcomes are best indicators of program characteristics, they tell us to which cycle or level a program belongs, which competencies it offers, how it connects with other programs and so on.

3.7. Quality assurance elements

A description of a study program and its courses in the form of clear learning outcomes, systematic program development in accordance with the procedure given in this document, represents a condition for attainment of academic standards of a study program. In order to determine if those have been really achieved, one should rely on indicators of quality such as:

[12] The Bologna Process 2020 - The European Higher Education Area in the new decade, Communiqué of the Conference of European Ministers Responsible for Higher Education, Leuven and Louvain-la-Neuve, 28-29 April 2009. http://www.ond.vlaanderen.be/hogeronderwijs/bologna/conference/

– quality and structure of students which applied and enrolled on a study program,
– the total number of employed graduates and number of those what work in the field of their study,
– transient rate in the first year of study,
– percentage of students that finish their studies on time,
– average study time,
– data on study program relevance for the labor market obtained from alumni organizations,
– labor market and institutions' representatives' evaluation of a study program
– students' evaluation of a study program
– a number of "coming" and "going" "mobile students" and similar.

The above-mentioned indicators are influenced by the quality and quantity of a study program.
Poor conditions in which a study program is conducted can jeopardize, even a highly set academic standards. It is thus necessary to adhere to indicators that refer to: organization and management, room and equipment, teaching staff, literature, books, library and database, information system, administrative technical support and other forms of student support.