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New Teaching Methods Workshop

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Project Based Learning/Teaching Method

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Conceptual Framework and roadmap/milestones for teaching methods

Road map/Milestones

- Student Centered Approach
- Learning Outcomes (LO)
- Qualification Frameworks
- Learning, teaching and assessment as a logical chain

Student Centered Approach

What is meant by Student-centered Learning or approach?

A variety of phrases have been coined to describe a critical shift in mission and purpose of higher education. The change as a move from an Instruction Paradigm- in which universities delivered instruction to transfer knowledge from faculty to students, to a Learning Paradigm|| in which universities produce learning through —student discovery and construction of knowledge.

Conceptual Framework and roadmap/milestones for teaching methods

Student Centered Approach

The following description of student-centered instruction provides another starting point for conversations about student-centered learning:

Student-centered approach [SCA] is an instructional approach in which students influence the content, activities, materials, and pace of learning. This learning model places the student (learner) in the center of the learning process. The instructor provides students with opportunities to learn independently and from one another and coaches them in the skills they need to do so effectively.

The SC approach includes such techniques as substituting active learning experiences for lectures, assigning open-ended problems and problems requiring critical or creative thinking that cannot be solved by following text examples, involving students in simulations and role plays, and using self-paced and/or cooperative (team-based) learning.

Conceptual Framework and roadmap/milestones for teaching methods

Student Centered Approach

Properly implemented SC teaching can lead to increased motivation to learn, greater retention of knowledge, deeper understanding, and more positive attitudes towards the subject being taught.

There is a broad spectrum of named approaches, which include:

- Active Learning
- Collaborative Learning
- Inquiry-based Learning
- Cooperative Learning
- Project-based Learning
- Question-directed Instruction
- Problem-based Learning
- Team-based Learning
- Peer Instruction
- Inquiry Guided Learning

Conceptual Framework and roadmap/milestones for teaching methods

ECTS is a learner-centred system for credit accumulation and transfer, based on the principle of transparency of the learning, teaching and assessment processes. Its objective is to facilitate the planning, delivery and evaluation of study programmes and student mobility by recognising learning achievements and qualifications and periods of learning.

ECTS credits express the volume of learning based on the defined learning outcomes and their associated workload.

Conceptual Framework and roadmap/milestones for teaching methods

Learning outcomes are statements of what the individual knows, understands and is able to do on completion of a learning process. The achievement of learning outcomes has to be assessed through procedures based on clear and transparent criteria. Learning outcomes are attributed to individual educational components and to programmes at a whole. They are also used in European and national qualifications frameworks to describe the level of the individual qualification.

Competence means “the proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development”.

Conceptual Framework and roadmap/milestones for teaching methods

Important: we should pay special attention and a specific focus on programme design and delivery, and experience of higher education institutions in using qualifications frameworks and in applying ECTS principles in academic practice.

Explanation of TLA logical chain

- Higher education institutions need to define their learning and teaching objectives in relation to their study programmes and how they should be delivered and assessed.

General principles for learning, teaching and assessment

Some general principles concerning learning, teaching and assessment should be taken into account when delivering a programme of study, regardless of the mode of learning and teaching.

Conceptual Framework and roadmap milestones for teaching methods

We have to consider and take into account recent developments in the Bologna Process such as:

- Establishment of the EHEA,
- Consolidation of lifelong learning,
- Paradigm shift from teacher-centred to learner-centred higher education,
- Increasing use of learning outcomes, and
- Development of new modes of learning and teaching.

Important: we should pay special attention and a specific focus on programme design and delivery, and experience of higher education institutions in using qualifications frameworks and in applying ECTS principles in academic practice.

Curriculum Design and the Use of Learning Outcomes

In order to be appropriate, the Teaching, Learning and Assessment, methods and criteria chosen for an educational component have to be consistent with the learning outcomes that have been defined for it and with the learning activities that have taken place.

Curriculum Design and the Use of Learning Outcomes One of the key foci of any given institution is curriculum design, as the main cog around which the teaching mission of any institution is centred. Curricular design is central both to the organisation of learning and to the methods by which teaching can take place in order to enhance learning.

Project based learning/teaching methods

Project Based Learning is:

Joint journey from classroom to real life by practicing, overcoming barriers of knowledge and competence, filling gaps of unknown, linking academic disciplines.

Project-based learning (PBL) is a student-centered principle that involves a dynamic classroom approach in which it is believed that students acquire a deeper knowledge through active exploration of real-world challenges and problems. Students learn about a subject by working for an extended period of time to investigate and respond to a complex question, challenge, or problem.

It is a style of active learning and inquiry-based learning.

PBL contrasts with paper-based, rote memorization, or teacher-led instruction that presents established facts or portrays a smooth path to knowledge by instead posing questions, problems or scenarios.

Project based learning/teaching methods

PBL integrates knowing and doing. Students learn knowledge and elements of the core curriculum, but also apply what they know to solve authentic problems and produce results that matter. PBL students take advantage of digital tools to produce high quality, collaborative products. PBL refocuses education on the student, not the curriculum—a shift mandated by the global world, which rewards intangible assets such as drive, passion, creativity, empathy, and resiliency.

These cannot be taught out of a textbook, but must be activated through experience.

A meta-analysis conducted by Purdue University found that when implemented well, PBL can increase long-term retention of material and replicable skill, as well as improve teachers' and students' attitudes towards learning.^[31]

Project based learning/teaching methods

Project Based Learning is a teaching method in which students gain knowledge and skills by working for an extended period of time to investigate and respond to an authentic, engaging and complex question, problem, or challenge.

In a **project**, students learn how to take initiative and responsibility, build their confidence, solve problems, **work** in teams, communicate ideas, and manage themselves more effectively.

PBL provides opportunities for students to use technology.

- It takes the student beyond the walls of the class room.
- It is carried out in a natural setting, thus making learning realistic and experiential.
- It encourages investigative learning and solution of practical problems

Project based learning/teaching methods

It is focused on the student as it enlists his/her active involvement in the task set.

It encourages the spirit of scientific enquiry as it involves validation of hypotheses based on evidence gathered from the field through investigation.

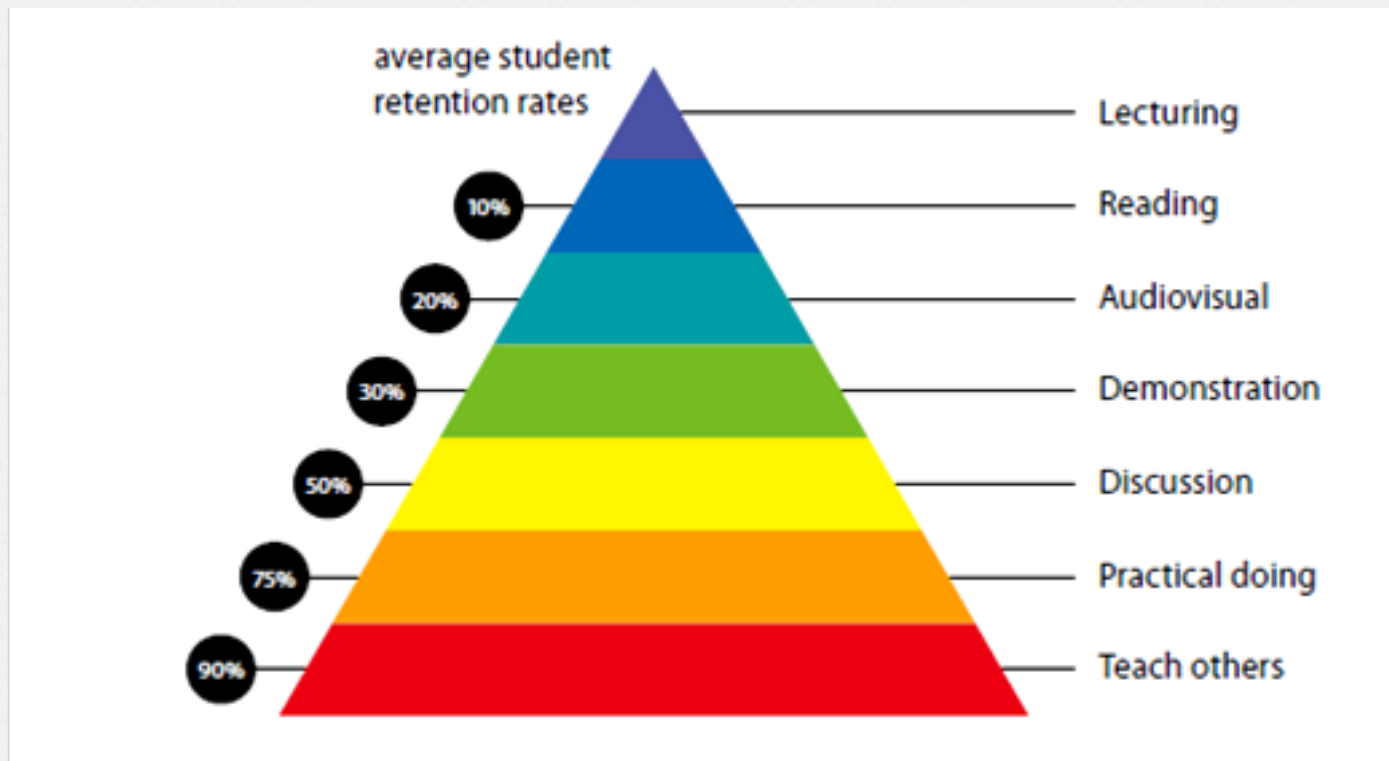
It promotes a better knowledge of the practical aspects of knowledge gained from books.

It enhances the student's social skills, as it requires interaction with the social environment.

Project based learning/teaching methods

Knowledge retention differs depending on the way in which material is learned, but all types of active learning show a higher retention rate than traditional

Learning Pyramid



Main Advantages

- Deeper understanding real life
- Better and effective memorizing
- More effective acquisition of analytical, critical thinking tools and techniques
- Holistic approach to complex problems
- More effective learning by breaking disciplinary barriers and faster achievement of programme LOs

Benefits For Students

The benefits of PBL for the students involved are many and varied. Coming into an academic community possibly for the first time can shape the way students think for the rest of their lives. PBL provides skills for life, creates independent learners and responds to the changing and differing needs of individual students.

Below is a list of what such benefits can include:

- Making Students an Integral Part of the Academic Community
- An Increased Motivation to Learn
- PBL can encourage deeper learning
- Independence and Responsibility in Learning
- Due Consideration for Student Needs

Benefits For Students

- Active Participation
- Active learning
- Students like what they are doing
- Effective Way to transfer skills
- Most universal tool for most disciplines
- Concrete way to conduct research
- Effective acquisition of generic LO(effective communication)
- Possibility to use technical tools, internet, media. video, etc.
- Contacts with stakeholder- employers
- Involvement of geo locations, local places, culture etc.: tangible and not tangible
- Skills in working with virtual world
- Possibility for disable people to join group in PBL
- Principle of 'Learning by doing'.

Benefits For Students

Teacher plays a facilitative role rather than the role of an expert. It allows the students a great degree of freedom to choose from among the options given to them; hence it provides a psychological boost. It encourages the spirit of research in the student.

Group projects the problem is solved by the group of pupil in the class. Here the social, citizenship qualities and synergism are develops.

In the complex project the students are carried out more than one work at a time. They are focuses on the work in various subject and angles. Here the students get the knowledge about the work in various activities and dimensions.

Benefits for Teachers

Whilst the benefits of PBL for students seem obvious, some may question whether this is also the case for teaching staff. Indeed, teachers can benefit from scl as much as the students in their classes. Below is a list of what such benefits can include:

- *A More Interesting Role for the Teacher-Facilitator*
- *Solutions to Tackling Massification and Diversity*
- *Positive Impact on Working Conditions*
- *Continuous Self-Improvement*
- *Increased Learner Motivation and Engagement*
- *Professional Development for Academia*

The Wider Benefits of SCL

Collectively both teaching staff and students have an interest in, and benefit from, PBL. This produces cross-over and benefits for their representative organizations:

- *Quality Enhancement*
- *The Status of the Teaching Profession*
- *Better Retention Rates in Higher Education*
- *Attracting Students*
- *An Ongoing Improvement Process*
- *Fostering a Lifelong Learning Culture*

PBL implementation in ASUE

Project based teaching/learning method: PBTL or Project based Interdisciplinary teaching/learning method

Important difference from classic PBL is that we've constructed and developed our unique method, using features of PBL:

Project based Interdisciplinary teaching/learning method: **PBITL**

- Modules and/or courses are/is taught based on same projects.
- Each course was based on previous course achievements in the same complex projects conducted by group of students or suggestion to create new projects.

For example:

Students 4 projects has been formed the base for courses:

- Strategic management
- Risk management
- Scheduling and Cost planning
- Quality Management

PBL implementation in ASUE

The courses were delivered in modules as follows:

MODULE	COURSE
1 st semester	
Introductory course	Foundations of Project Management
Module 1	Strategic Management
	Project Scheduling and Cost Planning
Module 2	Risk Management
	Project Quality Management
Module 3	Tourism Planning
	Tourism Principles and Practices
2 nd semester	
Module 4	Destination Analysis & Evaluation
	Destination Marketing
Module 5	Negotiation, Mediation, Facilitation and Conflict Resolution
	Tourism Product Development and Promotion

PBL implementation in ASUE

“Project Management” Joint Master Program, Academic Year: 2017/2018

Teaching and learning:

The main approach towards teaching and learning within the Project Management program has been project based. Students demonstrated their knowledge and skills by developing a specific tourism-related product for a real audience. The aim was to ensure acquisition of practical knowledge.

Thus, students worked in 3 teams on common projects over a semester. This enabled engaging them in solving a real-world problem starting from strategic planning, project scheduling and cost planning.

Afterwards, they learnt how to reveal and manage the possible risks and how to evaluate the quality of the project outcomes.

PBL implementation in ASUE

“Further module enabled them to assess the implementation opportunities in real life. Professors of the last module were experienced in public and private sectors; therefore, their aim was to give overall feedback on projects and explain possible real-life obstacles.

As a result, students developed deep content knowledge as well as critical thinking, creativity, and communication skills (team-working abilities) in the context of doing a meaningful project. Project based learning unleashed a contagious, creative energy among students and teachers.

Steps in PBL creation

- Create the group/s
- Generate and discuss project ideas
- Identify projects
- Work on projects
- Assessment and recommendations for further improvement

Each course was based on previous course achievements in the same complex projects conducted by group of students or suggestion to create new projects.

Working Groups by Projects



Study Program: Project Management in the fields of Tourism, Cultural Heritage and GIS

N	Working Group	Number of WG participants	WG Members	Project Title	Short description
1.	1	3	Anna Minasyan Gohar Melikyan Anna Badoyan	Development of Cultural and Gastronomic Tourism in Armenia	Overall aim of the project is develop tourism in Armenia using potential of rich Cultural Heritage and Armenian Cuisine
2.	2	4	Serine Stepanyan Manya Arakelyan Anna Khachatryan Mane Danielyan	«Armenian Natural Camp (ANC)»	To rise investments in Tourism industry in Tavush marz by establishing Eco-camp nearby Kirants Monastery
3.	3	4	Nerses Gevorgyan Anna Sanasaryan H o v h a n n e s Karapetyan Tatev Danielyan	“Welc.am” Vacation planning App	To facilitate and support tourist’s planning of vacation using application with comprehensive and full service for planning and implementation of vacation, including hotels, sites, transportation , cost planning etc.
4.	4	3	Hengameh Esbalani Syuzi Shahinyan Lusine Melikyan	Green and sustainable Hotel in Yerevan	To promote Green Economy, sustainable growth principles , standards by establishing Green Hotel in Yerevan

PBL in action



Instructors conducts facilitation with Project groups

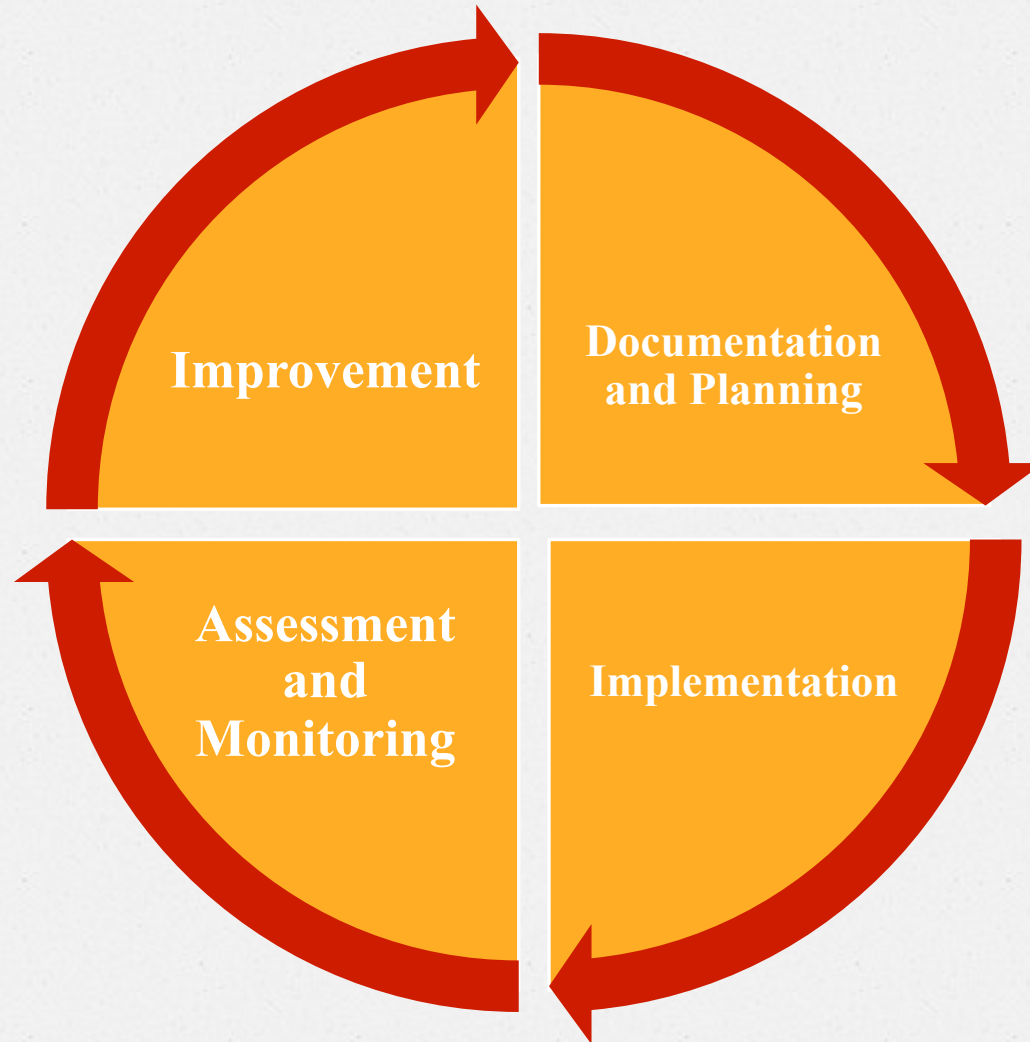


PBL in action

A project is a bit of real life that has been imparted into University

In a **project**, students learn how to take initiative and responsibility, build their confidence, solve problems, **work** in teams, communicate ideas, and manage themselves more effectively. PBL is an effective way to meet these goals. PBL provides opportunities for students to use technology.

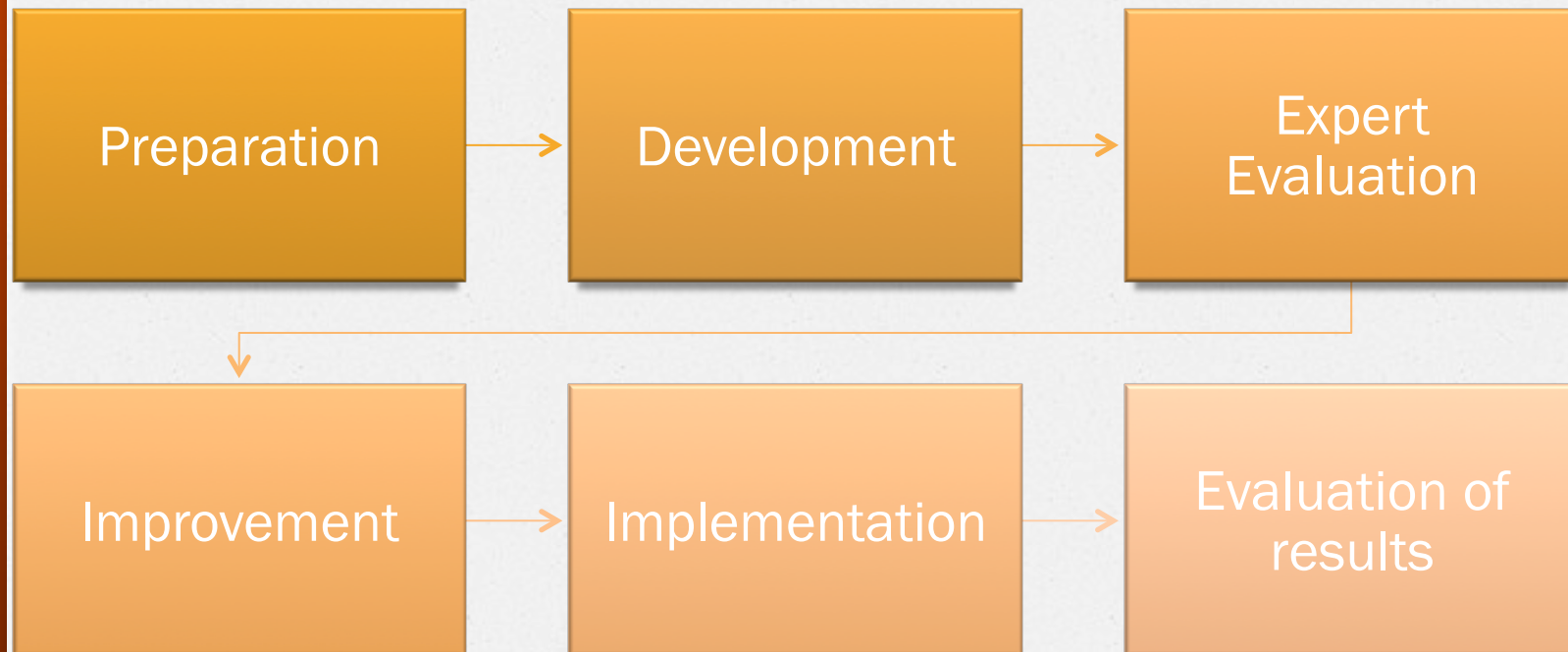
Quality Assurance Cycle in ASUE



Quality Assurance Process of Academic Programs

There are appropriate procedures in place for development, implementation and evaluation of learning outcomes-based academic programs.

Each academic program was developed according to the following cycle:



Prepaation

- In order to ensure that faculty members have the necessary skills to define intended learning outcomes, several training events on development of academic programs have been organized and conducted. The topics included academic program description of Bologna process, academic program structure, learning outcomes, etc. Separate trainings were held on University and Department level.
- Working groups were established for launching the development of academic programs

Development of Academic programs

- o Questionnaire templates were developed and adjusted for each specialization
- o Surveys were conducted among all the stakeholders (employers, students, graduates, teaching staff) ensuring their involvement in the whole cycle of QA
- o Labor market research and benchmarking analysis were conducted
- o Based on summarized results learning outcomes and consequently academic programs were developed

Expert evaluation and recommendations

- Expert group was established which involved experienced faculty members and students
- The drafts of developed academic programs and course descriptions were evaluated by the expert group
- Evaluation report was prepared and discussions with working groups were held
- Academic programs were improved based on recommendations



Implementation and evaluation

- o The academic programs were approved by Scientific Council
- o Teaching with newly developed/renewed academic programs was launched in September of academic year 2017/2018
- o Evaluation involved conduction of surveys among all the students of every academic program
- o Each course held in the first term was evaluated
- o The results are being collected and analysed, which will later on serve as a basis for improvement

Assessment and improvement

Within internal programme quality evaluation, at system level, the institution needs to ensure that there is a *strong focus on the quality of assessment practices*, with importance being given to the achieved learning outcomes of the student when compared to the intended learning outcomes as written at the point of curricular design.

While the choice of student assessment methods is a key component of the considerations to be made by the teacher in applying the SC/PBL approach, as seen above, it is also a central aspect of learning outcomes designed for a given course or programme component.

STUDENT QUESTIONNAIRE FOR ASSESSMENT OF THE ACADEMIC COURSE IMPLEMENTATION

The aim of this anonymous survey is to assess and improve the teaching, learning and assessment of the academic course.

Specialty/Specialization: _____

Qualification level: Bachelor Master

Year of Study: 1 2 3 4

Course title: _____

Teacher: _____

Based on your experience within this specific course, please, rate how strongly you agree or disagree with each of the below listed statements on a scale of 1-4, taking into account that 1 is the lowest and 4 is the highest (i.e. 1- "Strongly disagree", 4-"Strongly agree"). Please clearly cross the appropriate box: ☒.

Section 1: COURSE CONTENT	1	2	3	4
1. The course program (goals, content, learning outcomes, and knowledge assessment criteria, etc.) was clearly presented in the beginning of the course	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The course was delivered according to the provided curricula (course description)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Each module/topic and assignments were necessary for achievement of the course learning outcomes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Lecturing and course assignments (e.g. projects, academic papers, etc.) were related and complemented each other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Allocated time and schedule (ECTS credits) were enough for reaching the course outcomes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. The course increased my interest in the subject	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Further comments on the course content: _____

Section 2: TEACHING, LEARNING AND ASSESSMENT

	1	2	3	4
1. The teacher managed classroom well	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The teacher managed class time and pace well and presented/discussed the whole material of each course topic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The teacher used a variety of appropriate instructional methods to reach the course objectives (e.g. group work, case studies, student presentations, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The teacher demonstrated deep knowledge of the subject	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. The course provided an appropriate balance between theory and practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Course material has been delivered in a clear and accessible manner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. The teacher encouraged students openly express different opinions on course relevant topics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Knowledge assessment methods, criteria and form were related to the learning outcomes of the course and enabled to evaluate the academic performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. The teacher provided clear constructive feedback on assignments and assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. The teacher conducted all necessary consultations and has been helpful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. Considering both the limitations and possibilities of the subject matter and the course, how would you rate this teacher's teaching methods and style?

- Poor Fair Good Excellent

Section 3: LEARNING MATERIALS AND RESOURCES

	1	2	3	4
1. The course delivery was supported by adequate resources (e.g. handouts, books, class, computers, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Teaching materials (lectures) were from different sources and up-to-date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Appropriate resources (room, materials, library facilities, etc.) for task assignments were accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Teaching and learning environment was conducive to learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Further comments on the learning materials and resources:

Section 4: OVERALL EXPERIENCE

5. What overall rating would you give to this course?

- Poor Fair Good Excellent

6. In your opinion, to what extent does this course contribute to the acquisition of the course learning outcomes?

- Does not contribute Partly Fully

Please mention advantages and disadvantages of the course:

Thank you for your valuable feedback.

Assessment of Academic Course Implementation within “Project Management” Joint Master Program: STUDENTS’ SURVEY ANALYSIS REPORT

Section 1: COURSE CONTENT

In total 50 responses were collected. According to the assessment results, in general, students were satisfied with all the factors of the course content (all courses together). The least rate has been given to the last two factors, i.e. “Allocated time and schedule were enough for reaching the course outcomes” and “The course increased my interest in the subject”.

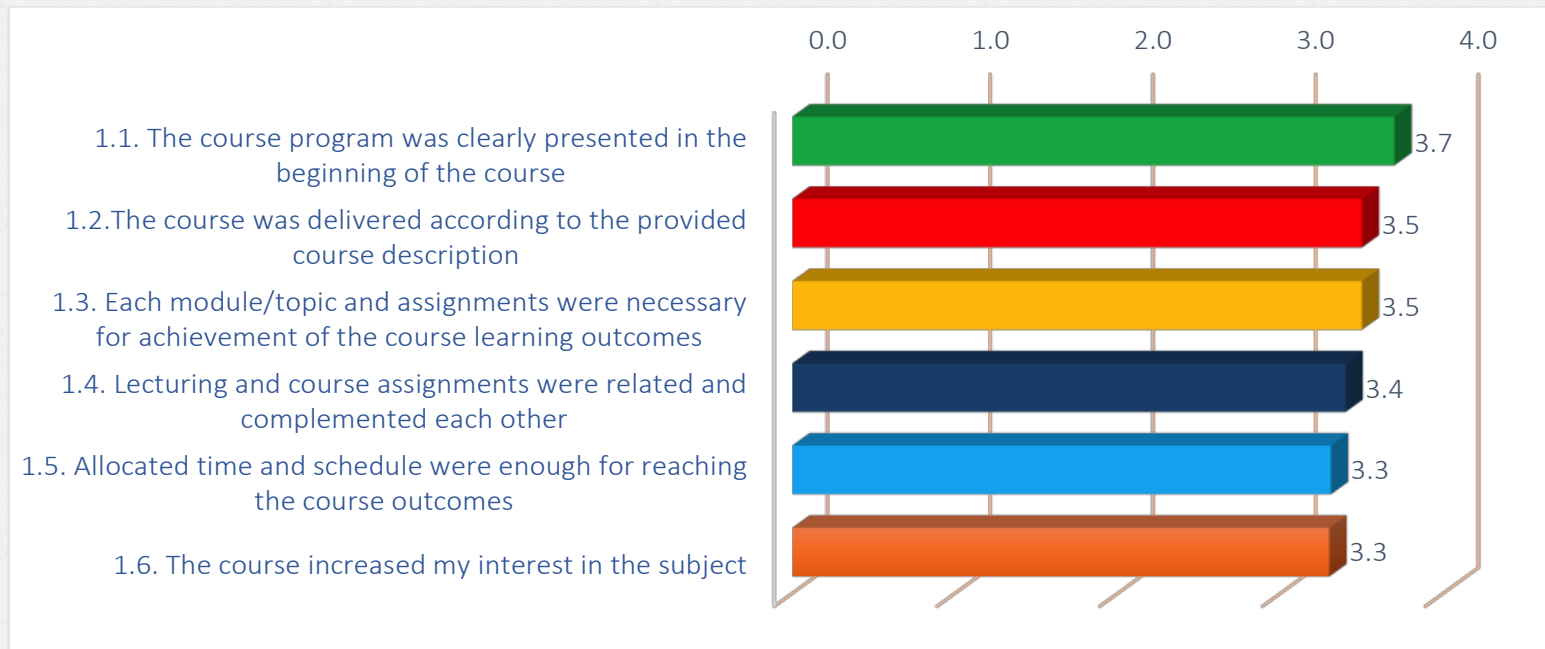


Chart 1. Average rates of the factors on course content

STUDENTS' SURVEY ANALYSIS REPORT

The students especially appreciated the chance to take the introductory course, which was, however, quite short but necessary.

Besides, the highest grades were given to the courses in the first module. More specifically, the content of “Strategic Management” course was assessed with the highest points by all the students. As for the “Project Scheduling and Cost Planning” course, the allocated time and schedule received lower rating than 3.3.

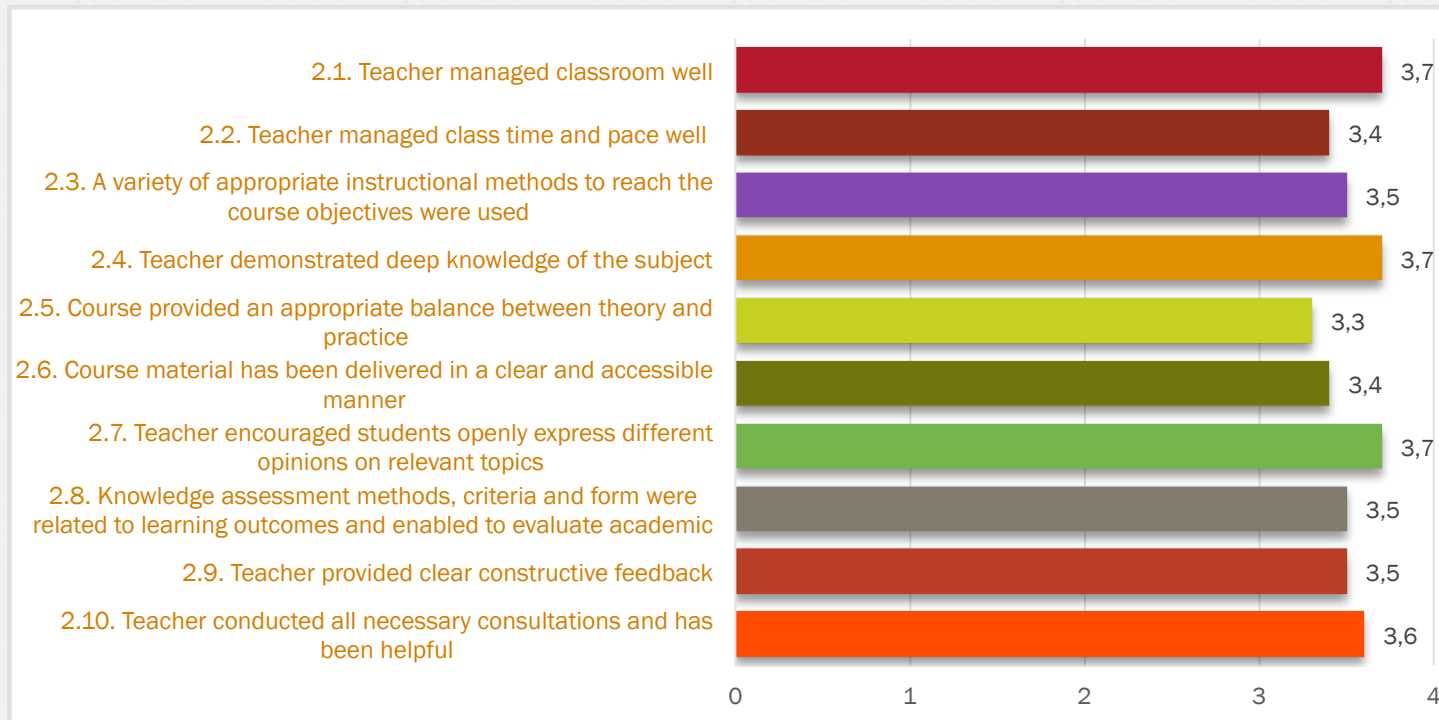
Overall, it can be stated that for the most courses students found that mainly the time/schedule was not sufficient for delivery of the study materials and/or learning.

STUDENTS' SURVEY ANALYSIS REPORT

Section 2: TEACHING, LEARNING AND ASSESSMENT

Concerning the teaching, learning and assessment, students assessed the factors similarly. They were especially satisfied with the teachers' student centered approach, PBL method, expertise and that they were encouraged to openly express their opinions during the class and discussions.

Chart 2. Average rates of the factors on teaching, learning and assessment



STUDENTS' SURVEY ANALYSIS REPORT

However, students emphasize that for some courses (Risk Management and Foundations of Project Management) appropriate balance between theory and practice was not provided.

Over the half of the students found the teachers' teaching methods and styles good, and one third considered it as excellent. Only 18% of students responded that the style and methods of the teacher were either fair or poor (16% and 2% respectively).

As for the open questions, most respondents gave a positive feedback on this aspect, mentioning that they appreciated the variety of practical examples, practical assignments, sharing of experience, answering to their questions, as well as kindness, responsiveness and professionalism of the teaching staff. Moreover, students found that the new methods and approaches of teaching contributed to acquisition of the intended learning outcomes.

მადლობა
Gracias
Grazie
Tack
Thank you
Շնորհակալություն

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