Co-funded by the Erasmus+ Programme of the European Union

EQAC "Establishment and Development of Quality Assurance Centers in Azerbaijan Universities"

586351-EPP-1-2017-1-AZ-EPPKA2-CBHE-JP

Final Report of Sumgayit State University on preparation of Pilot Program

1) **Name of the Pilot program: Computer engineering**

Total number of Bachelor students: visual students – 174, correspondence 149

Name of pilot subjects: Fundamental of computer Engineering, Fundamentals of electronics, Computer architecture, Computer networks, Security of computer systems, Digital systems, Fundamentals of the theory of computer applications, Simulation of systems, Basics of measurement techniques

Number of pilot teachers: 10

Annex 1 – official documents for selection of pilot program, subjects and teachers

Co-funded by the
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SUMQAYIT DÖVLƏT UNİVERSİTETİ
PİLOT PROQRAM
"Azərbaycan Universitetlərində Keyfiyyət Təminatı Mərkəzlərinin yaradılması və inkişaf etdirilməsi" layihəsi çərçivəsində

SUMGAYIT STATE UNIVERSITY
PİLOT PROGRAMME
In the frame of "Establishment and Development of Quality Assurance Cnters in Azerbaijan Universities (EQAC)" Erasmus+CBHE project

İxtisas: Kompüter mühəndisliyi
Speciality: Computer engineering
Təhsil proqramına dair məlumatlar
Data on Education programme
Azərbaycan dilində

Təhsil proqramının adı	Kompüter mühəndisliyi
Dövlət kodu	050631
Təhsil növü	Universitet təhsili
Təhsil pilləsi	Bakalavriat
Təhsilin forması	Əyani və qiyabi
Müddəti (il)	əyani 4 il, qiyabi 5 il
Təhsil proqramının həcmi (kreditlər)	240
Verilmiş dərəcə və/və ya kvalifikasiya	Kompüter mühəndisliyi üzrə Bakalavr
Tədris dili	Azərbaycan

In English

Name of education programme	Computer engineering
State code	050631
Type of education	University
Level of education	Bachelor
Form of education	Visual and correspondence
Duration (year)	visual 4 il, correspondence 5 il
Content of education programme (credits)	240
Issued degree or cvalification	Bachelor in computer engineering
Language of education	Azərbaijan

Rector **prof. E.B.Huseynov**

"Azərbaycan universitetlərində Keyfiyyət Təminatı Mərkəzlərinin yaradılması və inkişafı" mövzusunda
Erasmus + CBHE layihəsi çərçivəsində
PILOT fənnlər
PILOT subjects
In the frame of "Establishment and Development of Quality Assurance Centers in Azerbaijan Universities" (EQAC)
Erasmus + CBHE Project

	In English		***Azərbaycan dilində***
Pilot specialty: Computer engineering		**Pilot ixtisas: Kompüter mühəndisliyi**	
№	**Pilot subjects**	**№**	**Pilot fənnlər**
1.	Fundamentals of Computer Engineering	1.	Kompüter mühədisliyinin əsasları
2.	Fundamentals of electronics	2.	Elektronikanın əsasları
3.	Computer architecture	3.	Kompüter arxitekturası
4.	Computer networks	4.	Kompüter şəbəkələri
5.	Security of computer systems	5.	Kompüter sistemlərinin təhlükəsizliyi
6.	Digital systems	6.	Rəqəmsal sistemlər
7.	Fundamentals of the theory of computer applications	7.	Kompüterlərin tətbiqi nəzəriyyəsinin əsasları
8.	Simulation of systems	8.	Sistemlərin simulyasiyası
9.	Basics of measurement techniques	9.	Ölçmə texnikasının əsasları
10.	Technological measurements	10.	Texnoloji ölçmələr

Rector **prof. E.B.Huseynov**

"Azərbaycan universitetlərində Keyfiyyət Təminatı Mərkəzlərinin yaradılması və inkişafı" mövzusunda
Erasmus + CBHE layihəsi çərçivəsində
İnformasiya və kompüter texnikası kafedrası
In the frame of "Establishment and Development of Quality Assurance Centers in Azerbaijan Universities" (EQAC)
Erasmus + CBHE Project
Department of İnformation and computer technics

In English		**Azərbaycan diində**	
Pilot specialty: Computer engineering		**Pilot ixtisas: Kompüter mühəndisliyi**	
№	**Müəllimlər**	**№**	**Teaching staff**
1.	Mansurov Gadir, head of the department, assoc. prof.	1.	Mənsurov Qadir, kafedra müdiri, dosent
2.	Namazov Anar, assoc. prof.	2.	Namazov Anar, dosent
3.	Mahammadli Hijran, assoc.prof.	3.	Məhəmmədli Hicran, dosent
4.	Afat Huseynova, associ.prof.	4.	Hüseynova Afət, dosent
5.	Mammadova Rada, senior teacher	5.	Məmmədova Radə, baş müəllim
6.	Naghiyeva Sudaba, senior teacher	6.	Nağıyeva Südabə, baş müəllim
7.	Aghayeva Farida, senior teacher	7.	Ağayeva Fəridə, baş müəllim
8.	Allahverdiyeva Konul, senior teacher	8.	Allahverdiyeva Könül, baş müəllim
9.	Rasim Rasulov, senior teacher	9.	Rəsulov Rasim, baş müəllim
10.	Huseynov Agil, professor	10.	Huseynov Aqil, professor
11.	Rahimov Shafahat, assoc.prof.	11.	Rəhimov Şəfahət, dosent

Rector **prof. E.B.Huseynov**

2) Program commission

When was it established? – 12/11/2019
About the members:
1. Associate prof. Natig Talibov - Vice-rector on Teaching organization and training technologies
2. Associate prof. Gadir Mansurov - Head of department of Information and computer techniques
3. Associate prof. Anar Namazov – assoc.prof. of the department of information and computer techniques
4. Associate prof. Sabir Khalilov - assoc.prof. of the department of information and computer techniques
5. Phd. Samira Mammadova- head of Department of International Cooperation and foreign Students
6. Senior Lecturer Bahruz Amiraslanov – Senior lec. of department of information and computer techniques
7. Ass. Konul Allahverdiyev – Assistant of the department of information and computer techniques
8. Ass. Farida Agayeva - Assistant of the department of information and computer techniques

The responsibilities and the tasks of Program commission: To organize necessary trainings for preparation of 5 subjects' syllabuses in Computer engineering profession on ESG standards and monitoring of the teachers methodologies, evaluation and approval of new syllabuses.

Annex 2. Official documents about the approval of program commission

SUMQAYIT DÖVLƏT UNİVERSİTETİ
PİLOT PROQRAM KOMİSSİYASI
"Azərbaycan Universitetlərində Keyfiyyət Təminatı Mərkəzlərinin yaradılması və inkişafı" Erasmus+ CBHE layihəsi çərçivəsində

SUMGAYIT STATE UNIVERSITY
PİLOT PROGAMME COMMİSSİON

In the frame of "Establishment and Development of Quality Assurance Centres in Azerbaijan Universities (EQAC)" Erasmus+CBHE project

In English

	Commission members
1.	Associate prof.Natig Talibov-Vice-rector on Teaching organization and training technologies
2	Associate professor Gadir Mansurov – Head of department of Information and computer techniques
3.	Associate Professor Anar Namazov – assoc. prof. of the department of information and computer techniques
4.	Associate Professor Sabir Xalilov - assoc. prof. of the department of information and computer techniques
5.	Senior Lecturer Bahruz Amiraslanov - Senior lec. of the department of information and computer techniques
6.	Ass. Konul Allahverdiyev – Assistant of the department of information and computer techniques
7.	Ass. Farida Agayeva - Assistant of the department of information and computer techniques
8.	Phd. Samira Mammadova-Head of International Cooperation

Azərbaycan dilində

	Komissiya üzvləri
1.	Dos.Natiq Talıbov-Tədrisin təşkili və təlim texnologiyaları üzrə prorektor
2.	Dos. Qadir Mənsurov – İnformasiya və kompüter texnikası kafedrasının müdiri
3.	Dos. Anar Namazov - İnformasiya və kompüter texnikası kafedrasının dosenti
4.	Dos.Sabir Xəlilov - İnformasiya və kompüter texnikası kafedrasının dosenti
5.	B.m Bəhruz Əmiraslanav - İnformasiya və kompüter texnikası kafedrasının baş müəllimi
6.	Ass. Könül Allahverdiyeva - İnformasiya və kompüter texnikası kafedrasının assistenti
7.	Ass. Fəridə Ağayeva - İnformasiya və kompüter texnikası kafedrasının assistenti
8.	T.f.d. Samirə Məmmədova-Beynəlxalq əməkdaşlıq şöbəsinin müdiri

Rector **prof.E.B.HuseynOV**

3) Monitoring of Pilot teachers' teaching method

The aim of the monitoring: The main aim of monitoring and evaluation is to create a basis for self-assessment leading to self-improvement. Effective self-assessment enables teachers to identify their strengths and weaknesses, to compare their performance with that of other teachers, to identify opportunities for improvement, to set objectives and targets, and to priorities the actions required to achieve these. It also provides the means of identifying and responding to the needs of students and other stakeholders.

How many lessons observed? : 10

Who were the observers? – Within the pilot project Associate prof. Natig Talibov - Vice-rector on Teaching organization and training technologies and Phd. Samira Mammadova - head of Department of International Cooperation and International Students held monitoring in six groups in different subjects at Sumgayit State University.

Results of the observation: Most of the teachers have demonstrated a commitment to building solid relationships with their students through informal conversations and assessment interviews. But some of the teachers have not used classroom observations, formal assessment tasks and one-on-one conferencing to develop a good understanding of their students' physical, emotional and learning needs. Clear differentiation is also evident through the use of open-ended questioning and progressively more complex activities using Bloom's taxonomy to provide appropriate scaffolds and extension for students accessing the curriculum at various levels.

Annex 3: Report on monitoring

Co-funded by the Erasmus+ Programme of the European Union

EQAC PROJECT (ERASMUS+)

Report on monitoring of teaching methods of pilot teachers before and after the trainings

A pilot commission has been set up within the ERASMUS + EQAC project to improve the quality of education, to introduce new teaching methods, to develop sillabus and other teaching materials in accordance with European standards. The composition of the Commission and 10 pilot subjects within the pilot specialty were determined by the rector of the University. The following problems had been identified while the monitoring of teaching methods of pilot teachers before the trainings were organized:

1. Academic staff apply a passive and teacher-oriented teaching methodology;
2. The academic staff is not well informed about new teaching methods and student-oriented education systems;
3. The academic staff is not enough informed about the European Standards and Guidelines (ESG);
4. Syllabus were not based on the ESGs;
5. Neither student nor business world is involved in the design of the syllabus;
6. As a result of the monitoring, we came to the conclusion that some of the topics covered were not relevant to the business world and meet the demand of labor market;
7. Awareness about the National Qualifications Framework for Lifelong Education is inadequate;
8. Knowledge assessment is based on cognitive method;
9. The vocational and generic educational competencies provided in the curriculum are not taken into account in the design of syllabus and other teaching materials;
10. During the designing syllabus or other teaching materials, results of the course, learning outcomes are not properly mentioned;
11. The academic staff's awareness of writing learning outcomes is not enough;
12. The process of designing students' survey methodologies is not enough;

After organizing trainings related topics to overcome abovementioned problems, following improvements have been observed among Pilot teachers:

1. Pilot teachers try to apply shift from teacher-oriented teaching methodology to student-oriented education system;
2. Pilot teachers are well informed about new teaching methods and student- oriented education systems;
3. Pilot teachers are well informed about the European Standards and Guidelines (ESG);
4. Pilot teachers try to involve student or business world to the development of the syllabus;
5. Active involvement of students in the educational process is satisfactory;
6. It is satisfactory to take into account competences when evaluating;
7. Awareness about the National Qualifications Framework for Lifelong Education is adequate;
8. Pilot teachers' awareness of writing learning outcomes is satisfactory;
9. The process of designing students' survey methodologies is satisfactory;


4) Trainings for teaching staff

Number of trainings organized: 7
Number of teachers participated: 70
Date of trainings: 30/10/2019. 13/11/2019. 03/12/2019. 05/12/2019. 13/12/2019. 20/12/2019. 27/12/2019
Results of the trainings: The specific objectives of the training were to familiarize the pilot program teachers of the university with importance of the ESG standards. Few of the results and of the trainings are given below:

1. ESG standards and their role in Quality Assurance
2. The role of preparation of learning outcomes in the student-centered education system
3. Taxonomy is as a tool of training organization
4. Research and analytical analysis
5. New education methods
6. The rule of analysis article
7. The rule of writing of projects (course works)

Annex 4: Approved Agenda of trainings (link to videos if possible) and report on training

https://sdu.edu.az/az/news/1361

1. Objevctives of the training

The main objective of the training to finalize trainings on ESG for the pilot teachers. Some of the objectives are following:

1. ESG standards and their role in Quality Assurance
2. The role of preparation of learning outcomes in the student-centered education system
3. Taxonomy is as a tool of training organization
4. Research and analytical analysis
5. New education methods
6. The rule of analysis article
7. The rule of writing of projects (course works)

2. Structure of the Training

SSU organized 5 trainings in the frame of Erasmus+ EQAC project financed by the European Commission, coordinated by Baku Business University. Trainings were conducted by a head of Quality Assurance Center Nihad Huseynov, head of International Cooperation and foreign students PhD Samira Mammadova on topic Learning outcomes, Student oriented classes, Bloom Taxonomy, Fishbone Diagram and other above mentioned themes.

3.Trainings and Presentations

The first training was held by project coordinator Samira Mammadova, Engineering faculty academic staff members (pilot group) involved to the training. She gave broad information about pilot project and explain that within this project faculty will renew 5 programme. Then effective presentation was presented on How to write Learning Outcomes. The overall aim of the Bologna Agreement is to improve the efficiency and effectiveness of higher education in Europe. One of the main features of this process is the need to improve the traditional ways of describing qualifications and qualification structures. Statements called learning outcomes are used to express what the students are expected to achieve and how they are expected to demonstrate that achievement. Learning outcomes are defined as statements of what a learner is expected to know, understand and/or be able to demonstrate after completion of a process of learning. When writing learning outcomes it is helpful to make use of Bloom's Taxonomy of Educational Objectives. This classification or categorisation of levels of thinking behaviour provides a ready-made structure and list of verbs to assist in writing learning outcomes. Most leaming outcomes describe evidence of leaming in areas like knowledge, comprehension, application, analysis, synthesis and evaluation. This area is known as the cognitive domain. The other two main domains are the affective domain (attitudes, feelings, values) and the psychomotor domain (physical skills). In general, when writing learning outcomes begin with an action verb followed by the object of that verb. This handbook contains a list of action verbs for each area of Bloom's Taxonomy. Sentences should be kept short to ensure clarity. Learning outcomes must be capable of being assessed. The most common mistake in writing learning outcomes is to use

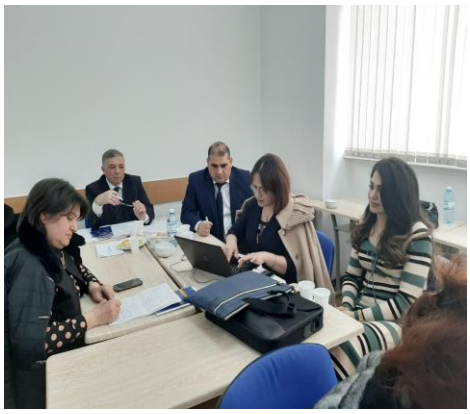
1.Who are the students?

2.What do I want students to be able to do?

3.How will I measure students' abilities? By asking yourself these questions at the onset of your course design process you will be able to focus more concretely on learning outcomes, which has proven to increase student learning substantially as opposed to merely shoehorning large quantities of content into a quarters worth of class meeting

Syllabus design

The syllabus provides the instructor and students with a contract, a common reference point that sets the stage for learning throughout the course. Make sure that your students have easy access to the course syllabus by handing out hard copies on the first day of class and (if applicable) posting a digital copy on the course website.



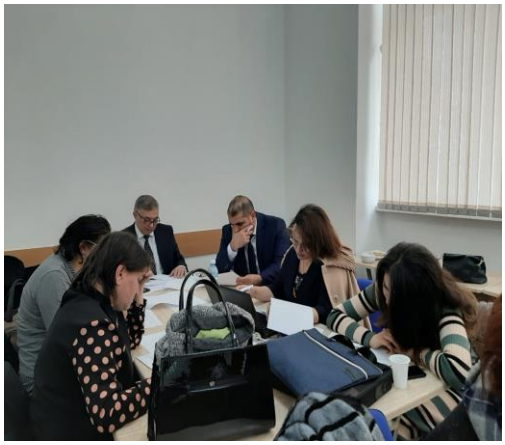
Common components included in a syllabus

The form and content of a syllabus vary widely by discipline, department, course and instructor, However, there are common components that most successful syllabi contain. These components communicate to your students an accurate description of the course including the topics that will be cover, assignments and assessments students will be responsible for, as well as a clear source for policies and expectations.

Course description

Course content: What is the basic content of the course and what makes it important or interesting? How does the course fit into the context of the discipline?
Learning objectives: What should students be able to do by the end of the course? Objectives are most helpful when they are expressed in terms of knowledge and skills that can be readily identified and assessed. For example, the ability to recognize, differentiate, apply or produce is much more readily identifiable than the ability to appreciate or understand. Characteristics of class meetings: What types of activities should students be prepared for? Discussion? Lecture? Small groups? Student presentations?
Logistics: What are the instructor's and TAs' names? How can they be contacted? How are course materials obtained? When and where does the class meet?
Vague terms like know, understand, learn, be familiar with, be exposed to, be acquainted with and be aware of. It is important to link learning outcomes to teaching and learning activities and assessment. This may be done with the aid of a grid to assist in checking that the learning outcomes map on to the teaching and learning activities as well as to the mode of assessment. The advantages of learning outcomes for teachers and students are well documented in the literature in terms of clarity, effectiveness of teaching and learning, curriculum design and assessment. In addition, learning outcomes assist greatly in the more systematic design of programs and modules. The educational strategies practiced during the seminars allow students to experiment both the

student's role, acquiring techniques of study and assimilation/comprehension of a specific content, studied material or text, and the possibility to empathize with the teacher role, leading the others in the learning activity. Thus, the students are given the possibility to comprehend the educational process from the perspective of its two poles, viz. the teacher and the student, thereby being able to develop or practice certain skills specific to the teaching profession, such as communication, interrelation, synthesizing and transmitting data, active listening, asking questions, making themselves heard, fast learning, systematising and practising the acquired knowledge in drawing up materials, etc., and creating at the same time positive leaming experiences of the various aspects of the teaching career. Thus the teaching-learning strategies are modified, the focus lying on the students' activity, which is in fact the independent variable of the experiment. By comparing the final performance of the students to their initial ones, the optimisation of the students' performance will be obtained by acquiring knowledge at a higher degree (by at least 30%), the acquisition of new teaching-learning strategies, and by forming and fixing specific didactic skills, which constitute in fact the dependent variable of the experiment. Effective course design begins with understanding who your students are, deciding what you want them to learn; determining how you will measure student learning; and planning activities, assignments and materials that support student leaming. For all interactions with students plan ahead by ask yourself:



5) Conducting survey among teaching staff

Number of participants: 50

Number of round tables organized with teachers: 3

Main findings from surveys: Teacher's classroom welfare strategies reflect the school's welfare program and policy, but unfortunately some of the teachers don't actively monitor individual learning plans for students with specific learning or behavioral issues.

Teachers design and implement lessons that are differentiated to cater for a range of abilities and learning styles. They plan and adjust their lessons to accommodate various learning needs of students.

The lack point is most of them are aware but don't apply new strategies include project based and student-centered learning.

Some of the teachers have not used classroom observations, formal assessment tasks and one-on-one conferencing to develop a good understanding of their students' physical, emotional and learning needs.

Annex 5: Report on survey among teaching staff

SSU team organized paper based surveys among teachers. Survey was conducted between 50 teachers. After surveys we prepared article and presented it to the Press Department of Sumgayit State University. Material replaced in the üeb page of university and eqaz.az portal
https://www.sdu.edu.az/az/news/1363

	1	2	3	4	5
Tədris proqramlarının əmək bazarının tələblərinə uyğunluğu	5.00%	19.00%	55.00%	20.50%	1.00%
Müəllimlərin bacarıqları	1.00%	15.00%	45.00%	30.00%	9.00%
Tədris prossesinin təşkili zamanı tədris metodlarında innovativliyin tətbiqi	4.50%	4.50%	15.32%	24.32%	51.36%
Maddi-texniki baza və tədris binasının (məs.auditoriyalar, mühazirələrdə istifadə olunan tədris ləvazimatları və.s) günün tələbinə uyğunluğu və tədris prossesində istifadəsi	4.21%	11.70%	21.12%	28.92%	34.05%
Müəllimlər və tələbələr arasında münasibət	1.40%	9.72%	18.18%	36.70%	44.00%
Tələbə və müəllim mübadilə proqramının həyata keçirilməsinin keyfiyyəti	0.90%	1.82%	24.55%	60.00%	12.73%
Tədris proqramlarının məzmununun yenilənməsi və təkmilləşdirilməsi	15.32%	7.20%	18.02%	41.44%	18.02%
Müəllimlərin ixtisas artırma işinin təşkili	38.45%	27.55%	29.00%	3.00%	2.00%
Tələbələrə tədris prossesində fərdi və peşəkar dəstəyin göstərilməsi	3.45%	6.45%	13.55%	24.72%	51.83%
Tədris fəaliyyətinizdə sizə təlimatların verilməsi	5.40%	19.00%	61.20%	9.90%	4.50%
Tətbiqi tədqiqatın həyata keçirilməsinin sistematikliyi və onun təhsil proqramlarının keyfiyyətli tərtibatına təsir səviyyəsi	1.45%	41.15%	40.85%	14.00%	2.55%
Şirkət və təşkilatlarla əməkdaşlıq səviyyəsi	21.43%	32.32	38.00%	2.00%	6.25%
....Universitetinin fəaliyyətlərində keyfiyyət heyyətinin iştirakı	1.33%	5.40%	34.75%	42.00%	16.52%

2. Bir müəllim kimi güclü və zəif tərəfləriniz hansılardır ? (Xahiş edirik sizə uyğun olan bəndlərdən yalnız üçünü seçib qeyd edin)

Meyar	Güclü tərəflər	Zəif tərəflər
Mənim peşəkar bacarıqlarım	30.45%	2.14%
İnteraktiv tədris və öyrətmə üsullarını tətbiq etmək bacarığım	12.47%	3.00%
Tədris prossesində peşəkar və ümumi bacarıqlarımı tətbiq etmək qabiliyyətinə malikəm	7.14%	2.45%
Tələbələrlə əməkdaşlıq və dəyərləri aşılamaq bacarığım var	26.00%	5.14%
Tədris proqramı və fənndə müəyyən nəticələr əldə etmək üçün öyrənmə və qiymətləndirmə üsullarını bir-birilə əlaqələndirmə bacarığım var.	7.24%	37.35%
Mənim tədqiqat potensialım	8.15%	35.00%
Tədris fəaliyyətində praktiki təcrübəm	4.25%	9.78%
Tədris etdiyim fənnin təcrübə dövründə praktiki biliklərim	4.30%	5.14%

3. Gələcəkdə bacarıqlarınızı hansı üsullarla inkişaf etdirməyi planlaşdırırsınız? (Sizə uyğun cavabları qeyd edin)

- Seminarlarda, təlimlərdə iştirak edəcəm 4.38%
- İxtisas artırma kurslarına gedəcəm 7.00%
- Konfranslarda təqdimatlarla çıxış edəcəm 27.45%
- Konfranslarda dinləyici kimi iştirak edəcəm 2.10%
- Bakalavr təhsilimin davamı olaraq Magistr təhsili alacam 0.00%
- Bakalavr təhsilimdən fərqli bir sahə üzrə Magistr təhsili alacam 4.00%
- Magistr dərəcəm olmasına baxmayaraq fərqli bir sahə üzrə təkrarən Magistr təhsili almaq niyyətindəyəm. 3.65%
- Doktoranturaya qəbul olacam 7.40%
- Avropa universitetlərindən qazandığım təcrübəni təşkil etdiyim təlimlərdə başqaları ilə bölüşəcəm 5.36%
- Mütəxəssis kimi təlimlərində iştirak edəcəm 2.00%
- Tədqiqat fəaliyyəti ilə məşğul olacam 9.21%
- Ölkədə və ya xaricdə təşkil olunacaq təcrübə proqramlarında iştirak edəcəm 4.45%
- Mübadilə proqramlarında iştirak edəcəm 12.00%
- Tədqiqat fəaliyyətimə aid məqalələr hazırlayıb nəşr etdirəcəm. 15.00%

4. .....Universitetində işinizin keyfiyyətini təmin etməyə kömək edən uyğun şərait yaradılıbmı? (Müvafiq cavabın altından xətt çəkin)

- Kitabxanadakı tədris bazasının və materiallarının yetərli/yetərsiz olması — 20% / 80%
- Tədris prosessini daha da səmərəli etmək üçün auditoriyalarda texniki ləvazimatların olması/olmaması — 40% / 60%
- Tədris materiallarını hazırlamaq üçün əlverişli şəraitin olması/olmaması — 35% / 65%
- Mühazirələrə hazırlaşmaq üçün uyğun mühitin təşkil olunması/olunmaması — 30% / 70%
- İş yükünüz optimaldır/ optimal deyil — 45% / 55%

müsbət | mənfi

5. Tədris fənninizin məzmununu .....Universitetin kitabxanasındakı mövcud nəşrlər, tədris materialları ilə əlaqələndirib yeniləyirsinizmi?

- Bəli 60%
- Qismən 30%
- Xeyr 10%

6. ..... Universitetinin tələbələri haqqında fikirləriniz?

- Fəal, öz məqsədlərinə doğru addımlayan 7.00%
- Təşəbbüs göstərən 35.20%
- Məsuliyyətli 28.64%
- Bacarıqlı 2.34%
- Öyrənmək həvəsi olmayan 19.70%
- Müstəqil halda öyrənməyə həvəsi olmayan vəya dərsdənkənar bir çox fəaliyyətlərlə məşğul olan 7, 12%

7. Tədris etdiyiniz fənnə tələbədə hansı üsullarla maraq və həvəs yarada bilirsiz?

- Tədris fənninin onların gələcək peşə fəaliyyətində rolu ilə bağlı mütəmadi müzakirələr edirik 15.45%
- Praktik üsullarla 12.85%
- Onlara nəyin necə edilməli olduğu haqda hər tərəfli təlimatlar verirəm 9.00%
- Tədrisdə ənənəvi mühazirələrə çox vaxt ayırmayaraq onları qarşılıqlı əlaqələr yaratmağa və tacrübəyə təşviq edirəm 16.75%
- Mən onlara müstəqil işləyə biləcəkləri son qəbul tarixləri və qiymətlandirmə meyarları qeyd olunmuş proqram verirəm 8, 21%
- Tədris prossesində interaktiv və həvəsləndirici üsullardan istifadə edirəm 5.24%
- Dərslərimdə qarşılıqlı fikir mübadiləsi yarada biləcək mühit formalaşdırıram 4.68%
- Tədris etdiyim fənnin maraqlı və başa düşülən olması üçün əlimdən gələni edirəm 17.00%
- Tələbələrə tapşırıqlar verərkən, tapşırıqları yerinə yetirilmə vaxtını təyin olunmuş vaxt ölçülərinə uyğun dəqiq planlaşdırıra 6.85%
- Şəxsi bacarıq və keyfiyyətlərimin tələbələrimdə ruh yüksəkliyi yaratdığını düşünşəm 3.97%

8. Tələbə nəticələrini qiymətləndirərkən hansı çətinliklərlə qarşılaşırsız ?

- Tətbiq olunan qiymətləndirmə metodları tələbələrin nəliyyət səviyyəsini tam ölçməyə imkan vermir 16.00%
- Tələbələr nəzəri materialların öyrənilməsinə kifayət qədər diqqət yetirmirlər 19.65%
- Tələbələr məsləhət üçün ayrılmış vaxtdan yararlanmırlar 24.00%
- Tələbələr dərsə aid mənbələrdən məlumat əldə etməyə meyilli deyillər 23.14%
- Tələbələr sərbəst şəkildə dərs oxumağa kifayət qədər vaxt ayırmırlar 8.25%
- Tədris prossesində tapşırıqların mütəmadi verilməsi və qiymətləndirilməsi, təlim nəticələrinin düzgün ölçülməməsinə səbəb olur 10.96%

9. Dərslərinizdə hansı tədris metodlarından istifadə edirsiniz? (Sizə uyğun cavabları seçin)

- Ənənəvi mühazirə üsulu 12.75%
- Tədris olunan fənnin atributlarının nümayişi 0.00%
- Praktik tapşırıqlar (tacrübədə tapşırıqları yerinə yetirmək) 9.00%
- Müzakirələr (fikir/bilik mübadiləsi) 9.55%
- Konseptual xəritə 0.00%
- Tematik tədqiqat 7.00%
- Qrafik üsullar 0.00%
- Qrup işləri və layihələr 11.75%
- Problem düşünmə 5.65%
- Nəşrlər, məqalələr və müxtəlif məlumat mənbələrindən istifadə edərək sərbəst iş 4.85%
- Qrup oyunları 23.25%
- İnşa yazmaq 16.20%
- Portfel üsulları 0.00%

10. Dərslərinizdə hansı tədris vəsaitlərindən / avadanlıqlardan istifadə edirsiniz?

- Qrafik proyektor 4.75%
- Multimedia avadanlığı 16.85%
- Video materiallar 21.75%
- Audio materiallar 22.75%
- Kompüterlər 18.00%
- İnternet 10.75%
- İnteraktiv lövhə 5.15%

6) Trainings for students

Number of trainings organized: 7

Number of students participated: 195

Results of the trainings: The specific objectives of the training were to familiarize the pilot program students of the university with importance of the ESG standards. Few of the specific results of the trainings are given below:

1. Introduction of new teaching methods, student oriented classes
2. The rule of writing of projects (course works)
3. New assessment rules
4. Importance of participation in surveys , fishbone diagram, Bloom taxonomy

Annex 6: Report on student trainings

ESTABLISHMENT AND DEVELOPMENT OF
QUALITY ASSURANCE
CENTERS IN AZERBAIJAN UNIVERSITIES

REPORT FOR STUDENTS TRAINING

AT

SUMGAYIT STATE UNIVERSITY

Co-funded by the
Erasmus+ Programme
of the European Union

1. Objectives of the trainings

The specific objectives of the training were to familiarize the pilot program teachers of the university with importance of the ESG standards. Few of the specific objectives of the trainings are given below:

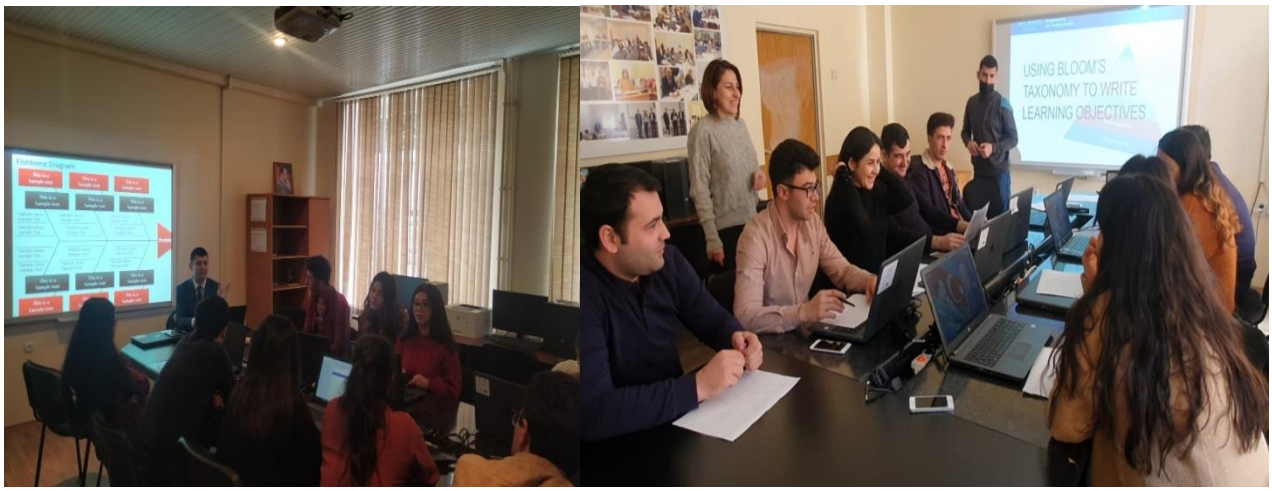
1. Involving students in Educational changes
2. Student involvement in the process of programme making.
3. The role of student oriented education.
4. The role of the students in decision making process
5. Work on Fishbone diagram
6. Bloom taxonomy

2. Structure of the trainings

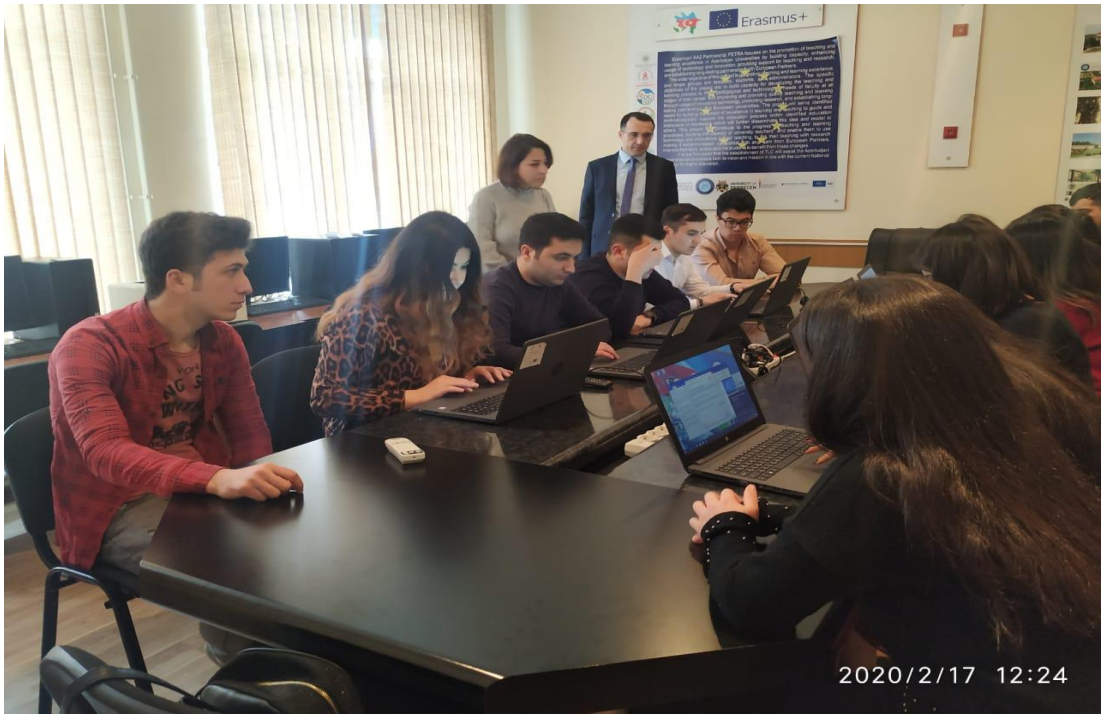
These were 5 days trainings;

Within the pilot project Sumgayit State University will renew Computer engineering profession programmes. And the main aim of us is to involve the students to the process. For this reason we hold trainings for students of Computer Engineering faculty students. The trainings covered the presentations by Samira Mammadova – Head of department of international cooperation and foreign students, Nihad Huseynov - Head of Quality Assurance Department and Nigar Mammadova - methodist of the department of international cooperation and foreign students about the student oriented education, learning outcomes, Bloom taxonomy and the role of the students in decision making process, student involvement in the process of programme making, student involvement in the process of programme writing.

3. Trainings and Presentations



The first training was held by project coordinator from SSU Samira Mammadova and all Computer Engineering faculty students involved to the training. She gave large information about pilot project and explain that within this project faculty will renew 5 programme. And the aim of this programme is to prepare the futures teachers so if they change this approach and use the student oriented education in the future classrooms, it will also affect the preparation of futures university students in the secondary schools. Then effective presentation was presented on Student oriented education.



The traditional classroom where students sit quietly and attentively in their seats, while the teacher pours vast amounts of wisdom and knowledge into their sponge like brains is over (assuming it ever existed.) This is especially true for middle school and high school classes where "teaching" can be a constant battle.

So what exactly is a student-centered classroom? In short, a student-centered classroom, or student-centered learning environment, is one where the focus of instruction is shifted from the teacher to the student, with the end goal of developing students who are autonomous and independent, by placing the responsibility of learning in the hands of the students. Many proponents of student-centered learning would argue that it's one of the most effective ways to help students develop the skills required for independent problem-solving and lifelong learning.

http://eqac.az/en/news-and-events/6/275

In the more traditional "teacher-centered learning" environment, the teacher is center of the learning experience and takes the "active" role of teaching, while the students assume a more "passive" or receptive role. In contrast, in the student-centered learning environment, the interests of the students' take center stage and the teacher gives students choice and voice, finding ways to provide learning experiences that focus on what students value. In the student-centered classroom, students take a more "active" role in the education experience. A student-centered classroom or learning environment can not exist without trust and open communication. Trust and open communication are achieved by always being fair with students, listening to them, and allowing them speak. However, it's much easier to develop a student-centered classroom if you get started right

away at the beginning of the year. Getting started at the beginning of the year sets the tone and lets students know what's expected of them the rest of the year.

Effective course design begins with understanding who your students are, deciding what you want them to learn; determining how you will measure student learning; and planning activities, assignments and materials that support student learning. For all interactions with students plan ahead by ask yourself:

1. Who are the students?
2. What do I want students to be able to do?
3. How will I measure students' abilities?

By asking yourself these questions at the onset of your course design process you will be able to focus more concretely on learning outcomes, which has proven to increase student learning substantially as opposed to merely shoehorning large quantities of content into a quarters worth of class meeting

Course description

- Course content: What is the basic content of the course and what makes it important or interesting? How does the course fit into the context of the discipline?
- Learning objectives: What should students be able to do by the end of the course? Objectives are most helpful when they are expressed in terms of knowledge and skills that can be readily

identified and assessed. For example, the ability to recognize, differentiate, apply or produce is much more readily identifiable than the ability to appreciate or understand.

- Characteristics of class meetings: What types of activities should students be prepared for? Discussion? Lecture? Small groups? Student presentations?

7) Survey among students

Number of students participated in surveys: 195

Main findings: For further development of programs there are some remarks by the students which will help the university administration to improve the satisfaction of students. They are following:

1. To make more clear the learning outcomes of the subjects
2. To change the approach to the education. From teacher centered to students oriented
3. To use the new and clear evaluation methods
4. To ensure interdisciplinary integration and eliminating repetition
5. To define the subject's objectives more clearly
6. To manage the time properly

Annex 7: Report on student survey

http://eqac.az/en/news-and-events/6/276
https://www.sdu.edu.az/az/news/1450
https://www.sdu.edu.az/az/news/1428
https://www.sdu.edu.az/az/news/1432
https://www.sdu.edu.az/az/news/1394

INTRODUCTION

Sumgait State University is one of the partner universities of EQAC Erasmus+ project. And within the framework of this project, the Computer Engineering specialty was chosen as a pilot program and the syllabuses for the 5 subjects is being developed in accordance with new standards. The main essence of this pilot project is to improve the quality of teaching by involving students in the learning process and curriculum development. One of the most effective ways to engage students in the learning process is the concept of student-centered learning, and the presenter of the new method emphasized that student-centered education puts students' interests and activities at the forefront of the learning process.

Within the pilot project Sumgait State University will renew Computer Engineering profession programs. And the main aim of us is to involve the students to the process. For this reason International Relations department hold trainings for students of Foreign languages faculty. The trainings covered the presentations of Samira Mammadova about the student oriented education and the role of students in decision making process, student involvement in the process of program making, student involvement in the process of program writing. After the trainings all participants participated in the survey.

PARTICIPANTS

195 students were participated in the survey and 50% of them were the students of Computer Engineering specialty. 50% of them were the students of other faculties (History and Geography, and Philology faculties).

The gender balance is following: 69% of the participants are female and 31% of the participants are male.

The survey was held anonymous and they had access in their e-portal to the survey. Participants evaluated commonly the subjects in the survey, also some participants share their attitude some different subjects (Accounting and auditing, Economy, Azerbaijani language and literature, History, ICT).

The participants of the survey are mainly bachelor degree students (5 groups of masters participated) and grade percentage is like that: 46.7%-I grade, 22.5%-II grade, 15.4%-III grade and 15.4-IV grade students.

OBJECTIVES OF SURVEY

To measure the student's level of satisfaction on study programs covering the areas as shown below:

1. During the first lessons of a particular subject, complete information about the curriculum, the main objectives of the subject, the learning outcomes, and evaluation criteria are given.
2. Learning methods, as well as tasks help to understand the content of the subject, but also to actively participate in lessons and to learn the subject independently.
3. The teacher implements the theory in practice, explains the solving problems in a practical way and provides the necessary tasks for professional development.
4. Time is enough to learn the objectives of the subject.
5. The teacher assigns a variety of tasks and uses professional techniques to check the tasks.
6. Teacher effectively manages the time.
7. The teacher evaluates the assignments in a timely manner and the assessment is objective and impartial.
8. The results of independent assignments and colloquiums are thoroughly discussed and added to the final score of students.
9. A list of compulsory reading materials is available in the university database and library.
10. Teacher effectively uses the system in the learning process by acquiring teaching materials and assignments through-learning system.
11. Acquire new knowledge and necessary practical skills for my future profession.
12. The subject meets my expectations and it encourages me for self-expression, creativity and critical thinking.
13. The subject is helpful in communicating and collaborating, gaining self-confidence and experience.

SURVEY RESULTS

1. During the first lessons of a particular subject, complete information about the curriculum, the main objectives of the subject, the learning outcomes, and evaluation criteria are given.

1-42%

2-32%

3-5.9%

4-8.9%

5-11.2%

2. Learning methods, as well as tasks help to understand the content of the subject, but also to actively participate in lessons and to learn the subject independently.

1-8.9%

2-7.1%

3-12.4%

4-26%

3. The teacher implements the theory in practice, explains the solving problems in a practical way and provides the necessary tasks for professional development.

1-13%

2-5.9%

3-13.6%

4-25.4%

5-45.6%

4. Time is enough to learn the objectives of the subject.

1-9.5%

2-10.1%

3-16%

4-24.9%

5-39.6%

5. The teacher assigns a variety of tasks and uses professional techniques to check the tasks.

1-12.4%

2-8.3%

3-15.45

4-29%

5-35.5%

6. Teachers manage the time effectively

1-9.5%

2-5.3%

3-8.9%

4-22.5%

5-56.8%

7. The teacher evaluates the assignments in a timely manner and the assessment is objective and impartial.

1-16.6%

2-5.9%

3-11.2%

4-19.5%

5-46.7%

8. The results of independent assignments and colloquiums are thoroughly discussed and added to the final score of students.

1-9.5%

2-3%

3-12.5%

4-23.2%

5-54.8%

9. A list of compulsory reading materials is available in the university database and library.

1-14.2%

2-6.5%

3-14.8%

4-19.5%

5-45%

10. Teacher effectively uses the system in the learning process by acquiring teaching materials and assignments through e-learning system.

1-12.4%

2-8.9%

3-15.4%

4-24.3%

5-39.6%

11. Acquire new knowledge and necessary practical skills for my future profession.

1-11.8%

2-4.1%

3-10.1%

4-20.1%

5-40%

12. The subject meets my expectations and it encourages me for self-expression, creativity and critical thinking.

1-9.5%

2-6.5%

3-14.2%

4-29%

5-42%

13. The subject is helpful in communicating and collaborating, gaining self-confidence and experience.

1-9.5%

2-6.5%

3-13%

4-21.3%

5-49.7%

CONCLUSION

The overall student survey results achieved for 2019 was 4.3/5.0 against set target of 3.8/5.0. These generally showed that students were satisfied with their study programs with. From the survey, more than 70% of the participants responded (strongly agree and agree) that they were satisfied with the programs rendered by the university. With the implementation of the improvement actions identified in this survey, we will be expecting better results in 2020. Most of the students replied verbally that they find it easier to express their opinions for the survey questions in the revised survey questionnaire as compared to previous.

For further development of programs there are some remarks by the students which will help the university administration to improve the satisfaction of students. They are following:

1. Involvement of students to the syllabus preparation process.
2. Organization of exams.
3. To make more clear the learning outcomes of the subjects.
4. To change the approach to the education. From teacher centered to students oriented.
5. To use the new and clear evaluation methods.
6. To define the subject's objectives more clearly.

7. To manage the time properly.
8. Increasing of number of exchange programs.
9. Involvement of students to the preparation of education.

8) Updated syllabus

Number of syllabus updated (the name of subjects): 5: Digital system, Computer architecture, Basics of computer engineering, Basics of measurement techniques, Basics of electronics

Number of teachers prepared the syllabus: 5

Annex 8: Updated program

Annex 9: Updated syllabuses

Annex 10: Approved teaching methods and assignments