

**Report on the work of the Center for Innovative Educational Technologies for the
2019-2020 academic year**

The Center for Innovative Educational Technologies (CIET) was established in response to the initiative of the European Commission on “Opening education for all with the help of new technologies” and in accordance with the project “Modernization of higher education in Central Asia through new technologies (HiEdTec)”. Order on making changes to the structure and staffing number R-04-368 of July 04, 2019

CIET ATU carries out its activities in accordance with the law "On Education", SES, Decree of the Government of the Republic of Kazakhstan, legal and regulatory acts of the Ministry of Education and Science of the Republic of Kazakhstan, orders of the rector of ATU.

The staff of the Center for Innovative Educational Technologies is 6 people. (1 vacancy). Director of CIET - Kalabina A.A. The CIET includes:

1. Department of e-learning (DE) - head of the department Tekesbayeva N.A., leading specialist of the DE Kuzin A.A., specialist of the DE Turymbaeva D.B.

2. Department for the development of digital educational resources - head of the department, vacant position, programmer designer Kami A.E., programmer animator Abdykhay A.T.

The main goals of the CIET are:

- adaptation of the educational system to the digital generation through the active and effective use of innovative educational technologies based on ICT;
- provision of highly qualified educational services for additional educational programs, dissemination of innovative pedagogical experience based on the use of modern pedagogical and ICT in the educational process;
- ensuring the position of ATU in the national, European and world educational space.

The main tasks of the CIET:

- implementation of innovative educational technologies in ATU;
- creation and periodic updating of the database, CIET catalog;
- maintenance of the platform of innovative educational technologies;
- authorization of access to digital educational resources, massive open online courses;
- provision of information and methodological support;
- organization of courses and seminars to support the innovative direction of the professional and personal development of teaching staff, undergraduates and students of ATU;
- systematization of innovative pedagogical experience, development of new approaches to the implementation of the tasks of pedagogical theory and practice, taking into account the trends in the development of the educational space;
- translation of innovative experience into the practice of the region: organization of courses, seminars, trainings, round tables, etc. according to the needs of subjects of the educational services market.
- to contribute to the equipment of lecture halls, and subsequently, laboratories, interactive presentation systems and laptops;
- present innovative educational technologies used in ATU to expert grHRDs, official guests at the national and international levels, etc.;
- conduct research revealing the real benefits of introducing innovative educational technologies;
- participate in the organization and holding of international, national seminars and conferences on the digital transformation of education;

The work of the CIET in the 2019-2020 academic year was carried out in accordance with the "Plan for the development, maintenance of the QMS of ATU JSC for the 2020 academic year", approved 12/20/2019 and "Plan of work of CIET for 2019-2020 academic year", approved September 20, 2019.

The most significant achievements in the 2019-2020 academic year year:

- confirmation of compliance with the requirements of MS ISO 9001:2015 during the inspection of the quality management system (QMS) of ATU in the period from November 25 to November 27, 2019 by the Russian Register Certification Association, auditor Beisembaeva K.B.;
- participation in the international project "Modernization of higher education in Central Asia through new technologies (HiEdTec)".;
- the Concept of adaptation of higher and postgraduate education to the digital generation was developed, recommended by the Ministry of Education and Science of the Republic of Kazakhstan to all Kazakhstani universities;
- by the decision of the meeting of the Expert Council of the "Orleu" in the nomination "Teaching Staff of Universities" dated October 18, 2019, the video materials of the teachers of the Almaty Technological University were awarded with diplomas and certificates.

1. Organizational and methodological work

1.1 Updating and development of QMS

During the reporting period, CIET developed and approved documented procedures, regulations and job descriptions for employees:

№	An identification number	Title of the document	Approval date	Date of change
1	2	3	4	5
Provisions on the procedure for action (PPA)				
1	ATU-IBBTO-ITE-7.5.1-2019-01	Uzdik elektrody kurstyn competitions turaly erezhe	09/26/2019	Not required
2	ATU- CIET-RPP-7.5.1-2019-01	Regulations on the competition for the best electronic course	09/26/2019	Not required
3	ATU-IBBTO-ITE-7.5.1-2019-02	Kepshilikke arnalğan ashhyk online kurstar turaly erezhe	09/26/2019	Not required
4	ATU-CIET-RPP-7.5.1-2019-02	Regulations on Massive Open Online Courses	09/26/2019	Not required
5	ATU-IBBTO-ITE-7.5.1-2019-03	Tsifirlyk bilim I take resourcestaryn azirleu turaly erezhe	09/26/2019	Not required
6	ATU-CIET-RPP-7.5.1-2019-03	Regulations on the development of digital educational resources	09/26/2019	Not required
7	ATU- IBBTO-ITE-7.5.1-2019-04	Uzdik tsiflyk bilim take resource contests turaly erezhe	09/26/2019	Not required
8	ATU- CIET-RPP-7.5.1-2019-04	Regulations on the competition for the best digital educational resource	09/26/2019	Not required
Position of the structural unit (PSU)				
9	ATU-KBB-KBE-5.3-2019-53	Innovativelyk bilim I take technology	09/26/2019	Not required
10	ATU-HRD-PSU-5.3-2019-53	Regulations on the Center for Innovative Educational Technologies	09/26/2019	Not required
Job descriptions (JD) of employees				

11	ATU-HRD-JD-5.3-2019-318	Job description of the director of the center of innovative educational technologies	09/26/2019	Not required
12	ATU-ҚBB-LN-5.3-2019-318	Innovativelyk bilim I take technology	09/26/2019	Not required
13	ATU-HRD-JD-5.3-2019-319	Job description of the head of the department for the development of digital educational resources	09/26/2019	Not required
14	ATU-ҚBB-LN-5.3-2019-319	Tsifryk bilim I take resourcestaryn azirleu belimi bastygynyn lauazymdyk nuskaulygy	09/26/2019	Not required
15	ATU-HRD-JD-5.3-2019-320	Job description of the programmer of the animator of the department for the development of digital educational resources	09/26/2019	Not required
16	ATU-ҚBB-LN-5.3-2019-320	Figures bilim take resources	09/26/2019	Not required
17	ATU-HRD-JD-5.3-2019-321	Job description of a programmer designer of the department for the development of digital educational resources	09/26/2019	Not required
18	ATU-ҚBB-LN-5.3-2019-321	Figures bilim I take resourcestaryn azirleu bolimi programmer-designer lauazymdyk nuskaulygy	09/26/2019	Not required
19	ATU-HRD-JD-5.3-2019-288	Job description of the head of the e-learning department	09/26/2019	Not required
20	ATU-ҚBB-LN-5.3-2019-288	Electrons okytu belimi bastygynyn lauazimdyk nyskaulygy	09/26/2019	Not required
21	ATU-HRD-JD-5.3-2019-289	Job description of the leading specialist of the e-learning department	09/26/2019	Not required
22	ATU-ҚBB-LN-5.3-2019-289	Electrodes okytu belimi zhetekshi mamanyynyn lauazymdyk nyskaulygy	09/26/2019	Not required
23	ATU-HRD-JD-5.3-2019-290	Job description of a specialist in the e-learning department	09/26/2019	Not required
24	ATU-ҚBB-LN-5.3-2019-290	Electrodes okytu belimi mamanyynyn lauazymdyk nyskaulygy	09/26/2019	Not required

Conclusions and suggestions for improving activities: The documented information of the CIET complies with the requirements of MS ISO 9001:2015, updating is not required.

2. Consumer Orientation

The concept of adapting the system of higher and postgraduate education to the digital generation has been developed and approved, taking into account the specific conditions in Kazakhstan. The document was prepared with the support of the European Commission within the

framework of the Erasmus + project “Modernization of higher education in Central Asia through new technologies” (HiEdTec). The concept has been agreed with the Ministry of Education and Science of the Republic of Kazakhstan. Posted at https://atu.edu.kz/ciet/wp-content/uploads/2022/05/2._KAZAKHSTAN-CONCEPT-RU.pdf

The Roadmap was approved as part of the project "Modernization of higher education in Central Asia through new technologies" (HiEdTec) dated 10/29/2019.

The most important elements of innovative educational technologies of CIET are the developed online learning platforms open.atu.kz and the catalog of digital educational resources moodle.atu.kz.

The didactic system of IET (innovative educational technologies) includes: learning objectives, objects (students) and subjects (teachers) of learning, learning content, teaching methods and means, learning outcomes (correctional control subsystem). This entire system is located on the open.atu.kz educational platform and on the global Internet.

Training on the open.atu.kz platform is carried out according to the scheme: video lectures + abstracts of lectures posted on the educational platform + base of control questions and tasks, testing + feedback from the teacher.

For distance learning, a catalog of digital educational technologies has been introduced and is being improved <http://moodle.atu.kz/>, which allows access to digital educational resources (interactive presentations with a survey, video lectures, interactive simulators, animations, etc.).

Training seminars on innovative educational technologies for teaching staff of the university departments were held on the basis of the University's ATI. All information about the seminars held is available on the website of the Center for Innovative Educational Technologies <https://ciet.atu.kz/>.

CIET is working to motivate teachers to develop and introduce modern teaching methods, including electronic (digital), into the educational process.

To motivate teachers, individual and indicative plans provide for mandatory planning of work on the publication and implementation of the results of the development of innovative teaching methods in the educational process and advanced training in this direction. Competitions are held for MOOCs, DERs and video materials.

For the current year, MOOC and DER competitions “The Best Massive Open Online Course and Digital Educational Resource” were planned from 04/20/2020 to 04/28/2020. Panorama of Pedagogical Ideas”, organized by JSC "National Center for Advanced Studies" ORLEU".

MOOC, DER of the contest participants are placed on the platform of the ATU University <http://open.atu.kz> and in the catalog of digital educational resources moodle.atu.kz.

Diplomas - Best Digital Educational Resource:

Diploma of the 1st degree - Tlevlesova Dinara Abaevna, Department of Mechanization and Automation of Production Processes.

Diploma of the II degree - Kairbayeva Ainura Yerkenovna, department "Mechanization and automation of production processes".

Diploma of the III degree - Serikkyzy Mira Serikovna, Department of Safety and Quality of Food Products.

Diplomas - Best Massive Open Online Course:

Diploma of the 1st degree - Makisheva Zhanna Anatolyevna, Department of Accounting and Finance.

Diploma of II degree - Zhaparkulova Nazgul Iksanovna, Department of Food Biotechnology.

Diploma of the III degree - Kodar Zamza Mutashkyzy, Department of Vocational Training and Social Sciences.

By the decision of the meeting of the Expert Council of the RIPK SO in nomination 21 "Teaching staff of universities" dated October 18, 2019, the video materials of the teachers of the Almaty Technological University were awarded a diploma and certificates.

1. Abdullaeva Ainur Askarovna

2. Alibaeva Bakhit Nasikhatovna
3. Alshynova Aiman Medeubekovna
4. Baiysbaeva Meruert Pernebaevna
5. Bozhbanov Alikhan Zhaksybekovich
6. Dzhakupova Inkar Borisovna
7. Dzhetpisbayeva Bagila Shakhimardanovna
8. Zhaparkulova Nazgul Iksanovna
9. Kalykova Almagul Oralbekovna
10. Kodar Zamza Mytashkyzy
11. Matibaeva Ainur Ibraevna
12. Kultasov Amantai Akhmadievich
13. Togabaeva Gulvira Shakenovna
14. Urkumbaeva Asiya Rakhimzhanovna

The video material "Organoleptic studies of food products" by Associate Professor of Almaty Technological University Nazgul Iksanovna Zhaparkulova won first place at the regional stage of the competition in this nomination.

In order to introduce innovative educational technologies within the framework of the project "Modernization of higher education in Central Asia through new technologies (HiEdTec)" <http://hiedtec.ecs.uni-ruse.bg> on the basis of the Almaty Technological University from August 19 to September 26, 2019 was held training seminar on the acquisition of digital skills and teaching methods "Development and use of digital educational resources in the educational process" (72 hours). Participants: faculty. Seminar format: from August 19 to August 22, 2019 - full-time participation (4 p.m.), venue - main educational building, room No. 702; from August 26 to September 26, 2019 - independent work and consultations (56 hours). Lecturers: Medvedkov Evgeny Borisovich, Dean of the Faculty of Distance Learning, Doctor of Technical Sciences, Professor; Kalabina Anastasia Anatolyevna, 50 teachers were trained on this topic.

CIET took part in the second Eurasian forum on quality assurance in education "Transformation through digitalization: universities and quality assurance systems" Date: September 16, 2019 Venue: Republic of Kazakhstan, Nur-Sultan, Astana International Financial Center (AIFC), Mangilik El Ave., 55/18, Pavilion C 4.4 Organizers: IQAA. More than 170 people took part in the forum, in particular, the President of the European Register of Quality Assurance Agencies (EQAR), Professor Karl Dietrich, the Director of the British accreditation agency QAA Douglas Blackstock, heads and representatives of Yessenov University, Nazarbayev University, Satbayev University, etc. Universities of Kazakhstan, experts, employers and students.

On the dissemination of best practices and adaptation of the education system to the digital generation, on September 28, 2019, ATU representatives took part in the international forum ELForum Kazakhstan 2019 held on the basis of Almaty Management University (AlmaU). This is the only one in Kazakhstan and the third conference for those who introduces and develops distance learning. The speaker from the Almaty Technological University was Professor, Doctor of Technical Sciences, Dean of the Faculty of Distance Learning Medvedkov Evgeny Borisovich. Within the framework of the forum, an exhibition of EdTech solutions was organized: where all participants interested in the field of innovative development could ask their questions to the developers of distance learning systems and electronic courses.

On the basis of the international conference "New social dimension in the mission of higher education" at the Eurasian National University. L.N. Gumilyov on October 31, institutional monitoring was held within the framework of the Erasmus + program. The work of the conference was aimed at solving the following problems:

- 1) determining the role and significance of the third mission of higher education in the modern world;
- 2) consideration of the degree of involvement of Kazakh universities in the implementation of the third mission of higher education;

- 3) assistance in the formation of a culture of the implementation of the third mission in Kazakhstani higher education;
- 4) definition of the social mission of universities and forms of their implementation in Kazakhstani society;
- 5) consideration of the relationship of universities with business, various social institutions and grHRDs, thereby strengthening their influence on society.

The director of the Center for Innovative Development of the Almaty Technological University Kalabina A.A. took part in the work of the first section as a listener.

From March 10 to March 16, 2020, a training seminar for trainers "Innovative educational technologies and didactic models" was held. Participants: faculty. Seminar format: from March 10 to March 16, 2020 – full-time participation (16 hours). Venue - the main educational building, room No. 614, 223-2B; Lecturers: Anastasia Anatolyevna Kalabina, Director of the Center for Innovative Educational Technologies, Nazym Aitmoldaevna Tekesbayeva, Head of the e-learning department.

April 21, 2020 for trainers of ATU within the framework of the project "Modernization of higher education in Central Asia through new technologies (HiEdTec)" took a course organized by the team of the University of Coimbra. Trainers of the Almaty Technological University, after training, began organizing an online advanced training course for teachers. Each trainer of ATU within the framework of the project must train 10 teachers.

The online advanced training course for teachers "Innovative educational technologies and didactic models" (72 hours) was held from 06/08 - 06/21/2020. Participants: faculty. Seminar format: 5 days of 3 academic hours on the zoom platform (15 hours), the remaining 9 days (57 hours) in a remote form on the open.atu.kz educational platform.

Coaches:

- Serikkyzy MS, PhD Senior Lecturer, Department of Food Safety and Quality
- Zhaparkulova N.I., Ph.D., acting Associate Professor of the Department of Food Biotechnology
- Z.M. Kodar, Doctor of Philological Sciences, Associate Professor of the Department of Vocational Training and Social Sciences
- Urkumbayeva A.R., Candidate of Economics, Associate Professor of the Department of Economics and Management
- Togabaeva, master's degree, lecturer of the department "Design".

2.1 Analysis of the MOOC development plan, DER for the 2019-2020 academic year

The CIET e-learning department is filling the open.atu.kz educational platform. The Department for the Development of Digital Educational Resources places the DER in the catalog on the platform moodle.atu.kz

The listener has access to video lectures by ATU teachers on selected course topics, access to which is provided by the edX-based online learning platform. On this platform <http://open.atu.kz> Almaty Technological University, the e-learning department has placed 126 MOOCs (48 MOOCs in the 2019-2020 academic year). **Appendix 1** provides a list with links to MOOCs. Online courses on the platform contain video-audio materials, interactive and test tasks, surveys, forums (chat), virtual laboratory work.

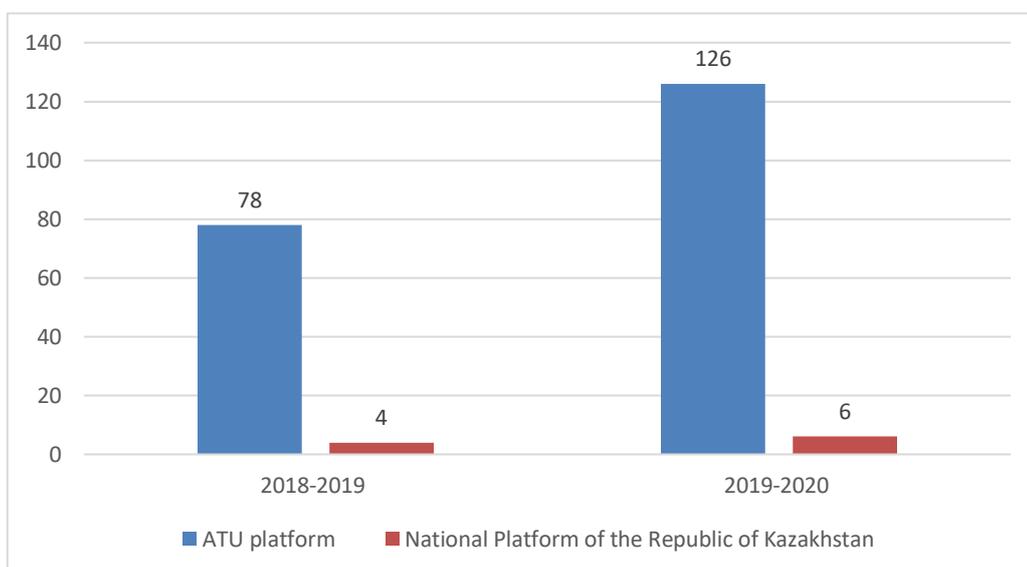
In the context of departments and faculties, the number of loaded MOOCs in the 2019-2020 academic year is distributed as follows (Table 1).

Table 1 - Number of online courses on the ATU platform

№	Faculty, department	Number of courses
Faculty of food production		23
1	Department of Food Technology	3

2	Department "Technology of bakery products and processing industries"	2
3	Department of Food Safety and Quality	10
4	Department of Food Biotechnology	3
5	Department of "Chemistry, chemical technology and ecology"	5
Faculty of Engineering and Information Technology		10
1	Department of Information Technology	5
2	department "Higher Mathematics and Physics"	1
3	Department "Mechanization and automation of production processes"	1
4	Department of Vocational Training and Social Sciences	3
Faculty of Economics and Business		9
1	Department of Economics and Management	5
2	Department of "Tourism and service"	2
3	Department of "Accounting and Finance"	2
Faculty of light industry and design		4
1	Department of "Design"	2
2	Department "Technology of textile production"	1
3	Department of "Technology, design of products and goods"	0
4	Department "State and foreign languages"	1
Structural units		2
1	Faculty of distance learning	1
2	Center for Innovative Educational Technologies	1
Total for ATU		48

Below is a graph compared to the 2018-2019 (CIET was part of the FDL) academic year of MOOCs on educational platforms.



Number of MOOCs on open.atu.kz and moocs.kz platforms

Conclusions and suggestions for improving activities: Faculties, departments provided justifications and explanations for non-fulfillment of the indicators of the MOOC development plan for the 2019-2020 academic year. The MOOC development plan is 49% complete. A total of 98 are planned for the 2019-2020 academic year, of which 48 were completed. Seminars were held from May 13 - June 29, 2020 on the topic "Improving the educational process using DLT for ATU teaching staff". Seminars were held on the ZOOM platform.No. PR-2712 dated May 14, 2020.

In the catalog of digital educational technologies on the platform<http://moodle.atu.kz>The DER development department has placed 964 digital educational resources. Digital educational resources on the platform contain interactive presentations with a survey, video-audio materials, interactive and test tasks, surveys, virtual labs, animations, dialogue simulators.

In the context of departments and faculties, the number of loaded DERs in the 2019-2020 academic year is distributed as follows (table 2).

Table 2 - Number of DERs in the catalog on the moodle.atu.kz platform

№	Faculty, department	Number of courses
Faculty of food production		218
1	Department of Food Technology	40
2	Department "Technology of bakery products and processing industries"	22
3	Department of Food Safety and Quality	17
4	Department of Food Biotechnology	92
5	Department of "Chemistry, chemical technology and ecology"	47
Faculty of Engineering and Information Technology		143
1	Department of Information Technology	4
2	department "Higher Mathematics and Physics"	12
3	Department "Mechanization and automation of production processes"	53
4	Department of Vocational Training and Social Sciences	54
5	Department of Engineering Graphics and Applied Mechanics	20
Faculty of Economics and Business		340
1	Department of Economics and Management	91
2	Department of "Tourism and service"	65
3	Department of "Accounting and Finance"	184
Faculty of light industry and design		263
1	Department of "Design"	67
2	Department "Technology of textile production"	34
3	Department of "Technology and design of products and goods"	146
4	Department "State and foreign languages"	16
Total by university		964

Conclusions and suggestions for improving activities: The DER development plan has been completed. A total of 808 DERs were planned, of which 964 were completed.

3. Technological renewal and digitalization

On November 26-27, 2019, the fourth CAREN Regional Network Conference - CRNC2019 was held in Bishkek (Republic of Kyrgyzstan). At the plenary session, Professor E.B. The presentation of the report can be found at the link <https://crnc2019.icaren.org/en/presentations/>.

From December 3 to 6, the third working meeting of the project "Modernization of higher education in Central Asia through new technologies (HiEdTec)" was held at the Tashkent State University of Economics.

As part of the project, the lecture halls are being modernized. A Guide to Innovative Teaching Methods is being developed.

The largest global online education platform Coursera has approved CIET's application to join the Coursera for Campus project during the coronavirus pandemic.

Students, undergraduates, doctoral students of the university were attracted to the study of online courses from the best universities in the world with the opportunity to study the course completely free of charge and receive a certificate.

Material and technical base of CIET:

- Studio for video recording and broadcasting online classes (room 204-2B)
- Active learning classroom (room 323-2B, 508-2B, 702-1, 614-1)
- MOOC educational platform <http://open.atu.kz>
- Virtual catalog of innovative educational technologies <http://moodle.atu.kz>
- Access to video lectures of teachers on certain topics of the courses is provided by the "Distance" system <http://distance.atu.kz>

For filming video lectures and broadcasting online classes, a. 204 educational building 2B. Recording is carried out at the time declared by the teacher in the presence of materials in the form of a presentation.

Educational software is purchased in various disciplines, as well as for the development of DER elements: IspringSuite, ERA computer program (for ecologists), specialized computer program CAD GRAFIS 11, MathCAD, MatLAB, SCAD, Auto CAD, thermo CALC, Camtasia studio, etc.

In the 2019-2020 academic year, the website of the Center for Innovative Educational Technologies was developed and launched <https://ciet.atu.kz>. On the CIET website, you can get acquainted with upcoming events (seminars, competitions, trainings), up-to-date information in the field of digitalization, an online learning platform and a catalog of digital educational resources.

Consultations using innovative educational technologies in the 2019-2020 academic year were held for teachers in the zoom system, on the forums of the open.atu.kz platform, as well as in additional communication software (for example, Skype, Team Viewer, Whatsapp, etc.). Face-to-face individual consultations were carried out in accordance with the approved schedule of consultations dated 01.10.19. All documentation is posted on the website https://atu.edu.kz/ciet/?page_id=170.

Specialists of the e-learning department organize the creation by ATU teachers of open online courses in the MOOC format in order to expand the scientific and educational activities of ATU, shoot video materials and lectures (Figures 1 and 2), develop a methodology for using information resources for ILT, and also master and support in operation software, information and technical means of CIET.



Figure 1 – Video lecture recording studio



Figure 2 - Recording a video lecture

For the work of teachers developing MOOCs, digital resources, a special classroom is used, equipped with laptops with Internet access. If necessary, teachers can also get advice from employees of the e-learning department there. Teachers can get acquainted with the schedule of consultations on the development of MOOCs on the CIET website. Online teaching staff courses are placed on the ATU online learning platform <http://open.atu.kz>. Digital educational resources are placed in the directory on the moodle.atu.kz platform.

The CIET staff monitors the implementation of the schedule for the development of MOOCs, DER. At the beginning of the academic year, the CIET staff carried out preparatory work, which includes: documentation, regulations, instructions for the development of MOOCs, DERs, as well as a schedule of consultations for the 2019-2020 academic year were posted on the site.

Work is underway with teachers on the use of feedback systems during lectures and after hours using smartphones and cloud technologies, gamification elements: Kahoot, Google forms and polls, Google Drive, Hangout, What Sapp, Skype, Team Viewer, etc. .

An analysis of the acts of introducing innovative teaching methods showed that in ATU over the past 3 years, the main attention, in addition to the creation of MOOCs, DER is paid to such types as technologies for collective mutual learning and cooperation using receptive information technologies, a method of cooperation, POPS - a formula, an algorithm for compiling a text : S - S / S - PR - T., discussion, on-line tests, construction of syncwine; question attack; linguistic (business) game; "thick and thin question"; cluster; Bloom Chamomile. (foreign language), "Blended learning" technology, Flip method, business training game, "Cluster" teaching methodology, project method, problem situations, visualization lecture, etc.

Social networks are used in the educational process, mainly Instagram. Startedequipping the common areas of the university with interactive information screens.

For teaching staff ATU CIET developed and posted on the website <https://ciet.atu.kz/> instructions and recommendations for the creation of MOOCs, DERs.

An electronic course is created for one discipline and includes all the necessary educational materials, preferably short training videos, text files, short and boundary control tasks, if necessary, laboratory and group classes, webinars.

Requirements for the course: high-quality, bright and memorable design of materials. It is also necessary to accompany the course with a teacher: webinars, consultations, alerts (reminders), etc.

The massive open online course contains description elements in accordance with the form F.CIET-7.5.1-2019-02-01.

The duration of the course is 2-3 weeks (for programs of additional education) and 6-9 weeks (for programs of higher or additional professional education) with a mode of study of 8-12 academic hours per week, depending on the complexity of the module and course. If the MOOC is designed for a university course, then the duration is calculated according to the following scheme: 15 weeks with a 3-hour mode for 1 credit of the Republic of Kazakhstan.

The online course should be divided into relatively small, logically closed parts - sections (modules). Each section is a standard educational product that includes a clearly defined amount of knowledge and skills intended to be studied within a certain time (week), or a credit unit. The average number of sections (modules) in a MOOC is 5–8 (the maximum number of modules is 15).

The materials of each module must include: 6–10 video lectures lasting 7–12 minutes each; a test aimed at assessing the level of understanding of the module materials, homework assignments, exercises. There may also be tasks for working on the material of the module, which are later subject to evaluation by the teacher, and sessions of interactive communication between the teacher and a group of students in the forum mode.

MOOC materials should be visual, understandable, unambiguous and presented in a way that facilitates understanding of the logic of the functioning of the course as a whole and its individual parts, in order to provide users with the ability to communicate interactively.

4. Functioning of the QMS

The effectiveness of external audits. Total audits according to the schedule of external audits: 1. Actual audits carried out: 1. Grounds for audits (program, plan) Program, plan for the inspection check of the QMS for compliance with the requirements of MS ISO 9001:2015 by the Russian Register Certification Association from November 25 to November 27, 2019 at the Almaty Technological University, auditor Beisembayeva K.B. Analysis of the results: no violations were found during the inspection. Suggestions for improvement: no.

4.1 Information on the implementation of the action plan to improve the QMS for the 2019-2020 academic year.

Date of approval of the CIET plan 20.09.2019/ plan QMS ATU12/20/2019

How many points are included in the CIET plan / QMS plan ATU 55/14

Of them completed: 54/11

failed: 1/3

List of outstanding works:

No. p / p	Abbreviation joint venture	Name of the event	Period of execution	Responsible executor, co-executors	Reasons for non-compliance	Measures taken
one	2	3	four	5	6	7
6.2	CIET	Training on QMS issues in third-party organizations	Conducting classes at the CIET according to the plan	Director of CIET Head of DE Head of DDDER	There was no information about relevant courses from third parties	Training of employees on QMS issues in CIET
6.8	CIET	Certification of CIET employees	By order of the rector	Director of CIET Head of DE Head of DDDER	Deadline hasn't come	Preparation of attestation cases
7.8/54	CIET	Preparation of the CIET annual report	May-June 2020	Director of CIET Head of DE Head of DDDER	Deadline hasn't come	Preparation and approval of the CIET annual report for the 2019-2020 academic year

Analysis of the results: the action plan for the development and maintenance of the ATU QMS was completed by 94.2%, except for the items indicated in the table above. For other items all planned activities in terms of QMS ATU, CIET were completed in full and on time.

5. Conclusions and proposals on the work of the CIET in the 2019-2020 academic year

In general, for the reporting 2019-2020 academic year, the CIET team carried out work aimed at optimizing and improving the educational process using innovative educational technologies.

Work has been carried out to create internal regulatory documents; in total, 24 new provisions have been approved and used during the academic year.

In the 2019-2020 academic year, the director of the CIET conducted training for teachers on the creation of EC, DER and support for this process during the next academic year.

In the current academic year, in order to stimulate the participation of teachers in the creation of electronic lectures and video materials, digital educational resources, according to the decision of the university council, leading teachers planned the creation of electronic courses, digital educational resources for this work were allocated 150 hours of teaching and methodological load. 10 hours are allocated for the development of the DER for each indicator.

Work continues on the creation and implementation of modern means and methods of IOT in the educational process. Currently, 126 MOOCs of the leading university teachers have been filmed and edited. 964 DERs are placed in the directory on the moodle.atu.kz platform.

SWOT-ANALYSIS

S(strength) - strengths	W(weakness) - weaknesses
<ul style="list-style-type: none"> ➤ Organization and development of digital educational resources and massive open online courses ➤ Adapting the educational system to the digital generation through the active and effective use of innovative educational technologies based on ICT ➤ Providing educational services for additional educational programs, disseminating innovative pedagogical experience based on the use of modern pedagogical and ICT in the educational process 	<ul style="list-style-type: none"> ➤ Problems with the acquisition of new software for the development of digital educational resources due to the high cost of software products ➤ Additional time spent on the annual update of the online course platform due to new network requirements ➤ New types of services in the field of innovative educational technologies (unscheduled)
O (opportunity) - favorable opportunities	T (threat) - anxiety, obstacles
<ul style="list-style-type: none"> ➤ Implementation of innovative educational technologies ➤ Creation and periodic updating of the database, CIET catalog ➤ Authorization of access to digital educational resources, massive open online courses ➤ Organization of courses and seminars to support the innovative direction of the professional and personal development of teaching staff, undergraduates and students ➤ Systematization of innovative pedagogical experience, development of new approaches to the implementation of the tasks of pedagogical theory and practice, taking into account the trends in the development of the educational space ➤ translation of innovative experience into the practice of the region: organization of courses, seminars, trainings, round tables, etc. according to the needs of subjects of the educational services market 	<ul style="list-style-type: none"> ➤ Service failure, no internet connection ➤ Attacks on network servers ➤ External power outages, interruption of communication channels at providers ➤ Probability of shortage of qualified specialists and their outflow

Conclusions:

- QMS CIET complies with the requirements of MS ISO 9001:2015;
- The quality policy complies with the requirements of MS ISO 9001:2015;
- The organizational structure of management and available resources are suitable and sufficient for the functioning of the QMS;
- Activities for the creation and preparation for certification of the QMS have been completed.
- Internal audits of the QMS are carried out in accordance with the requirements of MS ISO 9001:2015 in a planned manner;
- Personnel are aware of the requirements and are involved in QMS activities;
- The created QMS lays the foundation for continuous improvement of the organization's activities;
- Planned development and implementation of innovative educational technologies in the educational process;
- The process of functioning of the platform of online courses and the catalog of digital educational resources is controlled;
- Installed software for organizing the development of online courses and digital educational resources;
- A platform for online courses and an electronic catalog of digital educational resources have been developed.

Suggestions for correcting deficiencies:

- Develop activities related to innovative educational technologies;
- Develop measures to improve the interaction between teaching staff and students on the online course platform;
- Develop a CIET risk plan;
- Modernization and improvement of the ATU platform (open.atu.kz);
- Develop an online learning program (webinars, etc.) to develop digital educational resources in order to additionally attract students from enterprises, organizations and institutions on the principle of "lifelong learning";
- Develop questionnaires to study the satisfaction of the developed MOOCs, DERs on the ATU platform;
- Organize courses (seminar) for teaching staff of departments on the development and design of digital educational resources, on the preparation of electronic textbooks, online courses and teaching aids;
- Promotion of ATU e-courses on the National platform moocs.kz;
- Organization of a sociological survey "Application of innovative teaching methods";
- Control and adherence to the schedule for the development of MOOCs, DER.

Director of CIET Kalabina A.A. 06/15/2020

LIST OF COURSES ON THE OPEN.ATU.KZ PLATFORM

No.	Course name	Course number	Course Author	Link to the course	Note
Faculty of food production					
Department of Food Technology					
1.	Balalar tamaqtanuyna arnalğan sut onimderi men konservileri	TPP01	Dzhetpisbayeva Bagila Shakhimardanovna	http://open.atu.kz/courses/course-v1:ATU+TPP01+2018_C2/about	2018-2019
2.	Et zhane et nimderinin technology	TPP03	Abzhanova Sholpan Amankeldykyzy	http://open.atu.kz/courses/course-v1:ATU+TPP03+2018_C2/about	2018-2019
3.	Syt zhәне syt өnimderin өndirudiң physical-chemistry zhane biochemical negizderi	TPP04	Akilova Fatima Yesimkhanovna	http://open.atu.kz/courses/course-v1:ATU+TPP04+2019_C2/about	2018-2019
4.	Auyl sharuashylyk maldarynyn anatomy men histology	TPP05	Dzhetpisbayeva Bagila Shakhimardanovna	http://open.atu.kz/courses/course-v1:ATU+TPP05+2020_C2/about	2019-2020
5.	Azyk-tulik onimderin tanu zhane saraptau	TPP02	Matibaeva Ainur Ibraevna	http://open.atu.kz/courses/course-v1:ATU+TPP02+2020_C2/about	2019-2020
6.	Gylymi zhane jobalyk zertteuler	TPP06	Matibaeva A.I.	http://open.atu.kz/courses/course-v1:ATU+TPP06+2020_C2/about	2019-2020
Department "Technology of bakery products and processing industries"					
7.	Nan ondirisinin technology	THiPP01	Baiysbaeva Meruert Pernebaevna	http://open.atu.kz/courses/course-v1:ATU+TKHiKPP01+2018_C2/about	2018-2019
8.	Technology of brewing production	THiPP02	Kekibayeva Anara Kanbekovna	http://open.atu.kz/courses/course-v1:ATU+THiPP02+2019_C2/about	2018-2019
9.	Alcohol technology	THiPP03	Baigazieva Gulgaisha Ilyasovna	http://open.atu.kz/courses/course-v1:ATU+THiPP03+2019_C2/about	2018-2019
10.	Astyк ondeu ondirisi shikizattarynyn kasietin zertteu adisteri	THiPP04	Batyrbayeva Nurgul Bazilovna	http://open.atu.kz/courses/course-v1:ATU+THiPP04+2019_C2/about	2018-2019

11.	Ampelography with the basics of viticulture	THiPP05	Rustemova Ainash Zhubaikhanovna	http://open.atu.kz/courses/course-v1:ATU+THiPP05+2020_C2/about	2019-2020
12.	Automata zhobalau zhyyesi negizinde naubaykhana kasiporyndaryn zhobalau	THiPP06	Baiysbayeva Meruert Pernebaykyzy	http://open.atu.kz/courses/course-v1:ATU+THiPP06+2020_C2/about	2019-2020
Department of Food Biotechnology					
13.	Bioethics and safety fundamentals in biotechnology	PB01	Alibaeva Bakhit Nasikhatovna	http://open.atu.kz/courses/course-v1:ATU+PB01+2019_C2/about	2018-2019
14.	Microbiology and Virology	PB02	Saltybaev Arsen Demosfenovich	http://open.atu.kz/courses/course-v1:ATU+PB02+2019_C2/about	2018-2019
15.	Januarlar biotechnologies	PB03	Katasheva Alma Chamaevna	http://open.atu.kz/courses/course-v1:ATU+PB03+2019_C2/about	2018-2019
16.	Өsimdikter biotechnology	PB04	Utegalieva Raisa Saktaganovna	http://open.atu.kz/courses/course-v1:ATU+PB04+2019_C2/about	2018-2019
17.	Animal biotechnology	PB05	Aralbaeva Araylym Nugmanovna	http://open.atu.kz/courses/course-v1:ATU+PB05+2019_C2/about	2018-2019
18.	Azyk-tulik ondiristeri shikizatynyn kasiyterin zertteu	PB06	Zhaparkulova Nazgul Iksanovna	http://open.atu.kz/courses/course-v1:ATU+PB06+2019_C2/about	2018-2019
19.	Microbiology vs Virology	PB07	Mamataeva Aigul Tymaikyzy	http://open.atu.kz/courses/course-v1:ATU+PB07+2019_C2/about	2018-2019
20.	Research on the properties of raw materials in the food industry	PB08	Seidakhmetova Zaure Zhunusovna	http://open.atu.kz/courses/course-v1:ATU+PB08+2019_C2/about	2018-2019
21.	Environmental Biotechnology	PB09	Asenov Aueskhan Rakhyshevich	http://open.atu.kz/courses/course-v1:ATU+PB09+2020_C2/about	2019-2020
22.	Industrial Biotechnology	PB10	Amirova Aigul Kuzembaevna	http://open.atu.kz/courses/course-v1:ATU+PB10+2020_C2/about	2019-2020
23.	Apparatus for biotechnological production	PB11	Shambulova Gulnara Dosanbekovna	http://open.atu.kz/courses/course-v1:ATU+PB11+2020_C2/about	2019-2020
Department of "Chemistry, chemical technology and ecology"					
24.	Ecology and sustainable development	HHTiE01	Dzhakupova Inkar Borisovna	http://open.atu.kz/courses/course-v1:ATU+HHTiE01+2018_C2/about	2018-2019

25.	Ecologylyk normalau negizderi zhane saraptama	HHTiE02	Dzhakupova Inkar Borisovna Bozhbanov A.Zh.	http://open.atu.kz/courses/course-v1:ATU+HHTiE02+2018_C2/about	2018-2019
26.	Ecology Zhane turakty lady	HHTiE03	Sultangazieva Gulbaram Sapina	http://open.atu.kz/courses/course-v1:ATU+HHTiE03+2019_C2/about	2018-2019
27.	Chemistry of drugs	HHTiE04	Zainullina Aigul Shaikhullaevna	http://open.atu.kz/courses/course-v1:ATU+HHTiE04+2019_C2/about	2018-2019
28.	Biogeochemistry vs. Ecotoxicology	HHTiE05	Alimkulova Jamila Dzhakypberkyzy	http://open.atu.kz/courses/course-v1:ATU+HHTiE05+2019_C2/about	2018-2019
29.	Nanotechnology Negizderi	HHTiE06	Abilkasova Sandugash Orynbaevna	http://open.atu.kz/courses/course-v1:ATU+HHTiE06+2019_C2/about	2018-2019
30.	Chemistry	HHTiE07	Almagambetova Saule Tulegenovna	http://open.atu.kz/courses/course-v1:ATU+HHTiE07+2019_C2/about	2018-2019
31.	Environmental chemistry	HHTiE08	Moldagaziyeva Zhanar Yspanovna	http://open.atu.kz/courses/course-v1:ATU+HHTiE08+2019_C2/about	2018-2019
32.	Nature management	HHTiE09	Egeubayeva Salamat Sabitovna	http://open.atu.kz/courses/course-v1:ATU+HHTiE09+2019_C2/about	2018-2019
33.	Biochemistry	HHTiE10	Kalimoldina Laila Mautenovna	http://open.atu.kz/courses/course-v1:ATU+HHTiE10+2019_C2/about	2018-2019
34.	Chemistry	HHTiE11	Shaikhova Zhanat Erezhinovna	http://open.atu.kz/courses/course-v1:ATU+HHTiE11+2019_C2/about	2019-2020
35.	Analytical chemistry	HHTiE12	Alipbaev Amanbol Namatzhanovich	http://open.atu.kz/courses/course-v1:ATU+HHTiE12+2019_C2/about	2019-2020
36.	Basic processes and apparatuses of chemical technology	HHTiE13	Berkinbayeva Aknur Sabitovna	http://open.atu.kz/courses/course-v1:ATU+HHTiE13+2019_C2/about	2019-2020
37.	Biological ecology	HHTiE14	Musina Zukhra Malikovna	http://open.atu.kz/courses/course-v1:ATU+HHTiE14+2019_C2/about	2019-2020
38.	Soil science	HHTiE15	Kalimoldina L.M.	http://open.atu.kz/courses/course-v1:ATU+HHTiE15+2020_C2/about	2019-2020
Department of Food Safety and Quality					
39.	Tirshilik kauipsizdigi negizderi	BiKPP	Asilova Gulzhan Mukhangalievna	http://open.atu.kz/courses/course-v1:ATU+BiKPP01+2018_C2/about	2018-2019

40.	Quality system	BKiPP01	Serikkyzy Mira Serikovna	http://open.atu.kz/courses/course-v1:ATU+BKiPP01+2019_C2/about	2018-2019
41.	Fundamentals of safety and life	BKiPP02	Omirbai Roza Suleimenkyzy	http://open.atu.kz/courses/course-v1:ATU+BKiPP02+2019_C2/about	2018-2019
42.	Tirshilik kauipsizdik negizderi	BiKPP03	Egemova Shynar Batyrbekovna	http://open.atu.kz/courses/course-v1:ATU+BiKPP03+2019_C2/about	2018-2019
43.	Fundamentals of life safety	BiKPP04	Bugubaeva Gulnar Ospanakunovna	http://open.atu.kz/courses/course-v1:ATU+BiKPP04+2019_C2/about	2018-2019
44.	Toxicological bases of environmental pollution by radionuclides	BiKPP05	Asilova Gulzhan Mukhangalieвна	http://open.atu.kz/courses/course-v1:ATU+BiKPP05+2019_C2/about	2018-2019
45.	Sapa zhuyesi	BiKPP06	Tattibaeva Damira Baktiyarovna	http://open.atu.kz/courses/course-v1:ATU+BiKPP06+2019_C2/about	2018-2019
46.	Food safety	BKiPP07	Azimova Sana Tuglukovna	http://open.atu.kz/courses/course-v1:ATU+BKiPP07+2019_C2/about	2019-2020
47.	Sensory assessment of food quality	BiKPP08	Izteleva Raushan Akmuratovna	http://open.atu.kz/courses/course-v1:ATU+BiKPP08+2019_C2/about	2019-2020
48.	Ondiristik kauipsizdik	BiKPP	Egemova Shynar Batyrbekovna	http://open.atu.kz/courses/course-v1:ATU+BiKPP+2020_C2/about	2019-2020
49.	Azyk-tulik zhane auysharuashhylyk onimderin certificatetau	BiKPP02	Zheldybayeva Ainur Amangeldinovna	http://open.atu.kz/courses/course-v1:ATU+BiKPP02+2020_C2/about	2019-2020
50.	Tagam himiyasy	BiKPP09	Toktamysova Aiman Baibatirovna	http://open.atu.kz/courses/course-v1:ATU+BKiPP09+2019_C2/about	2019-2020
51.	Tagam onimderinin kauipsizdigi	BiKPP10	Tnymbaeva Bagymkul Temirkhanovna	http://open.atu.kz/courses/course-v1:ATU+BKiPP10+2019_C2/about	2019-2020
52.	Quality audit	BiKPP11	Serikkyzy Mira Serikovna	http://open.atu.kz/courses/course-v1:ATU+BKiPP011+2020_C2/about	2019-2020
53.	Industrial safety	BiKPP12	Omirbai Roza Suleimenkyzy	http://open.atu.kz/courses/course-v1:ATU+BiKPP12+2020_C2/about	2019-2020

54.	Product Analysis Methods	BiKPP13	Bugubaeva Gulnar Ospanakunovna	http://open.atu.kz/courses/course-v1:ATU+BiKPP13+2020_C2/about	2019-2020
55.	Authentication and falsification of food products	BiKPP14	Tattibayeva Damira Baktiyarovna	http://open.atu.kz/courses/course-v1:ATU+BiKPP14+2020_C2/about	2019-2020
Faculty of Economics and Business					
Department of Economics and Management					
56.	Organizational behavior	EiM01	Urkumbaeva Asiya Rakhimzhanovna	http://open.atu.kz/courses/course-v1:ATU+EiM01+2018_C2/about	2018-2019
57.	Kasiporyn economics	EiM02	Abutalipova Zhuldyz Abaқыzy	http://open.atu.kz/courses/course-v1:ATU+EiM02+2019_C2/about	2018-2019
58.	Economics sayasat	EiM03	Kusainova Saule Bukenbaevna	http://open.atu.kz/courses/course-v1:ATU+EiM03+2019_C2/about	2018-2019
59.	Macroeconomics	EiM04	Aitkhodzhaeva Gulraykhan Ikramovna	http://open.atu.kz/courses/course-v1:ATU+EiM04+2019_C2/about	2018-2019
60.	Kasipkerlik	EiM05	Kusainova Saule Bukenbaevna	http://open.atu.kz/courses/course-v1:ATU+EiM05+2019_C2/about	2018-2019
61.	Ondiristik management	EiM06	Murzabekova Baglan Maglumbekkyzy	http://open.atu.kz/courses/course-v1:ATU+EiM06+2019_C2/about	2018-2019
62.	Baskaru personnel	EiM07	Naimanova Altynai Orynbaevna	http://open.atu.kz/courses/course-v1:ATU+EiM07+2019_C2/about	2018-2019
63.	Halykaralyk economy	EiM08	Kirbetova Zhanar Sagatovna	http://open.atu.kz/courses/course-v1:ATU+EiM08+2019_C2/about	2018-2019
64.	Industry economics	EiM09	Baktgereeva Alma Taganovna	http://open.atu.kz/courses/course-v1:ATU+EiM09+2019_C2/about	2019-2020
65.	Personnel Management	EiM10	Esakhmetova Lyailya Muratbekovna	http://open.atu.kz/courses/course-v1:ATU+EiM10+2019_C2/about	2019-2020
66.	Marketing	EiM11	Sauranova Meruert Mamyraimovna	http://open.atu.kz/courses/course-v1:ATU+EiM11+2019_C2/about	2019-2020

67.	Economists memlekettik retteu	EiM12	Ospanova Almagul	http://open.atu.kz/courses/course-v1:ATU+EiM12+2019_C2/about	2019-2020
68.	Manufacturing economics	EiM13	Epanchintseva Svetlana Eduardovna	http://open.atu.kz/courses/course-v1:ATU+EiM13+2020_C2/about	2019-2020
Department of "Tourism and service"					
69.	Service psychology	TiSO01	Tuebekova Zeynep Zhaparovna	http://open.atu.kz/courses/course-v1:ATU+TiSO01+2019_C2/about	2018-2019
70.	Entrepreneurship Fundamentals	TiSO02	Tokaeva Layli Abdulazizovna	http://open.atu.kz/courses/course-v1:ATU+TiSO02+2019_C2/about	2018-2019
71.	Oiyn-sauyk industries	TiSO03	Tumazhanova Marhaba Orazalyevna	http://open.atu.kz/courses/course-v1:ATU+TiSO03+2019_C2/about	2018-2019
72.	Kyzmet korsetu salasyndagy zhosparlau	TiSO04	Sarsebaeva Aigul Mukhtarovna	http://open.atu.kz/courses/course-v1:ATU+TiSO04+2019_c/about	2018-2019
73.	Tourist kyzmet korsetu salasyndagy zharnama	TiSO05	Tokbergenova Ulzhalgas Abdugapparovna	http://open.atu.kz/courses/course-v1:ATU+TiSO05+2019_C2/about	2018-2019
74.	Meymankhana zhane meyrankhana management	TiSO06	Isakov Erlan Duisenbekovich Joya Kairat	http://open.atu.kz/courses/course-v1:ATU+TiSO06+2019_C2/about	2018-2019
75.	Analysis of the organization and regulation of the service sector	TiSO07	Ramazanov Altai Abdrakhmanovich	http://open.atu.kz/courses/course-v1:ATU+TiSO07+2019_C2/about	2018-2019
76.	Restaurant and hotel marketing	TiSO08	Belgibaev Almaz Kanashevich Myrzagulova Gulnaziya Rakhymbaykyzy	http://open.atu.kz/courses/course-v1:ATU+TiSO08+2019_C2/about	2018-2019
77.	Introduction to hotel and restaurant business	TiSO09	Tagaeva Aisulu Zhorabekovna	http://open.atu.kz/courses/course-v1:ATU+TiSO09+2019_C2/about	2018-2019
78.	Entertainment industry	TiSO10	Zhatkanbayeva Elmira Alimzhanovna	http://open.atu.kz/courses/course-v1:ATU+TiSO10+2019_C2/about	2019-2020

79.	Meiramkhana isi men konak yy biznesindegi kәsipkerlik qyzmet negizderi	TiSO11	Sarsebaeva Aigul Muktarovna	http://open.atu.kz/courses/course-v1:ATU+TiSO11+2020_C2/about	2019-2020
Department of "Accounting and Finance"					
80.	Pricing	BUiF	Nurpeisova Nazim Satybaldievna	http://open.atu.kz/courses/course-v1:ATU+BUiF+2019_C2/about	2018-2019
81.	Bank isi	BUiF01	Orazaliev Babakhan	http://open.atu.kz/courses/course-v1:ATU+IS01+2019_2/about	2018-2019
82.	Financial markets and intermediaries	BUiF02	Sartova Rysty Bozmanaevna	http://open.atu.kz/courses/course-v1:ATU+BUiF02+2019_C2/about	2018-2019
83.	Accounting in catering	BUiF03	Maukebaeva Roza Myrzataevna	http://open.atu.kz/courses/course-v1:ATU+BUiF03+2019_C2/about	2018-2019
84.	Fundamentals of Accounting	BUiF04	Nesipbekov Erkin Nesipbekovich	http://open.atu.kz/courses/course-v1:ATU+BUiF04+2019_C2/about	2018-2019
85.	Karzhlyk bakylau	BUiF05	Alenova Karlygash Kairatovna	http://open.atu.kz/courses/course-v1:ATU+BUiF05+2019_C2/about	2018-2019
86.	1-C: Accounting 8.2	BUiF06	Tailak Marat Kuanyshuly	http://open.atu.kz/courses/course-v1:ATU+BUiF06+2019_C2/about	2019-2020
87.	Economics Taldau	BUiF07	Dәuletbaқov Baқytқan Dәuletbaқyly	http://open.atu.kz/courses/course-v1:123+1231+123/about	2019-2020
Faculty of Engineering and Information Technology					
Department of Engineering Graphics and Applied Mechanics					
88.	Engineer zhane computer graphics	IGiPM01	Mazhiev Yerzhan Myrzakhmetuly	http://open.atu.kz/courses/course-v1:ATU+IGiPM01+2019_C2/about	2018-2019
89.	Teoriyalyk zhәne koldanbaly mechanics	IGiPM02	Akimkhanova Aigerim Anarbekovna Mazhieva Elba Myrzakhmetovna Akyngaziev Zhamesh Akyngazievich	http://open.atu.kz/courses/course-v1:ATU+IGiPM02+2019_C2/about	2018-2019

Department "Mechanization and automation of production processes"					
90.	Processes and apparatuses of food production	MiAPP	Medvedkov Evgeny Borisovich	http://open.atu.kz/courses/course-v1:ATU+MAPP01+2019_C2/about	2018-2019
91.	Interchangeability, standardization and technical measurements	MiAPP01	Alshynova Aiman Medeubekovna	http://open.atu.kz/courses/course-v1:ATU+MiAPP01+2018_C2/about	2018-2019
92.	Electric technicas zhane electric zhabdygy	MiAPP02	Abdukarimov Sadratdin Abdukarimovich	http://open.atu.kz/courses/course-v1:ATU+MiAPP02+2019_C2/about	2018-2019
93.	Tamaq �ndirisinin protesteri men apparatus	MiAPP03	Kuzembaev K.K., Medvedkov E.B., Kuzembaeva G.K.	http://open.atu.kz/courses/course-v1:ATU+1+1_1/about	2019-2020
Department of Higher Mathematics and Physics					
94.	Maths	VMiF01	Kultasov Amantai Akhmadievich	http://open.atu.kz/courses/course-v1:ATU+VMiF01+2019_C2/about	2019-2020
Department of Vocational Training and Social Sciences					
95.	Special Pedagogy	POiON01	Kuperbayeva Aigul Zhaksylykovna	http://open.atu.kz/courses/course-v1:ATU+POiON01+2018_C2/about	2018-2019
96.	Psychology Zhane Adam Damui	POiON02	Kalykova Almagul Oralbekovna	http://open.atu.kz/courses/course-v1:ATU+POiON02+2018_C2/about	2018-2019
97.	Kazakhstannyn kazirgi zaman tarihy	POiON03	Dosekeyeva Kulmira Aldenbaevna	http://open.atu.kz/courses/course-v1:ATU+POiON03+2018_C2/about	2018-2019
98.	Law basics	POiON04	Shindauletova Lyazzat Baurzhanovna	http://open.atu.kz/courses/course-v1:ATU+POiON04+2018_C2/about	2018-2019
99.	Religious studies	POiON06	Ospanov Kairly Imanalievich	http://open.atu.kz/courses/course-v1:ATU+POiON06+2019_C2/about	2018-2019
100.	Madeniyettanu	POiON07	Kiikbai Abdilla Atamuratuly	http://open.atu.kz/courses/course-v1:ATU+POiON07+2019_C2/about	2018-2019
101.	Dintana negizderi	POiON08	Igisenova Aida Rakhimberdievna Suleimenova Aizhan Khamitovna	http://open.atu.kz/courses/course-v1:ATU+POiON08+2019_C2/about	2018-2019

102.	Kazakhstannyn kazirgi zaman tarihy	POiON09	Aldeken Aynur Sabyrbaykyzy Akhmetova Shynar Kadirbekovna	http://open.atu.kz/courses/course-v1:ATU+POiON09+2019_C2/about	2018-2019
103.	Psychology of Zhane Madeniettanu	POiON10	Ibraimova Zhanar Kazhibaeвна	http://open.atu.kz/courses/course-v1:ATU+POiON10+2019_C2/about	2018-2019
104.	Philosophy of tarija	POiON11	Bizhanova Meruert Altynbekovna	http://open.atu.kz/courses/course-v1:ATU+POiON11+2019_C2/about	2018-2019
105.	History of philosophy	POiON05	Kodar Zamza Mytashkyzy	http://open.atu.kz/courses/course-v1:ATU+POiON05+2020_C2/about	2019-2020
106.	Philosophy	POiON12	Kodar Z.M.	http://open.atu.kz/courses/course-v1:ATU+POiON12+2020_C2/about	2019-2020
107.	Sociology and Political Science	POiON13	Ashimova Zaytuna Iseidullaevna	http://open.atu.kz/courses/course-v1:ATU+POiON13+2020_C2/about	2019-2020
Department of Information Technology					
108.	Python Programming Fundamentals	IT01	Izbasarov Erlan Zhaksybaevich	http://open.atu.kz/courses/course-v1:ATU+IT01+2019_C2/about	2018-2019
109.	Koldanbaly esepтерdi Mathcad ortasynda modeldeu	IT02	Orazayeva Layla Iliyaskyzy	http://open.atu.kz/courses/course-v1:ATU+IT02+2019_C2/about	2018-2019
110.	C++	IT03	Kerimakyn Ainur Seitbekova Gulzhan Bizhigitova Dana	http://open.atu.kz/courses/course-v1:ATU+IT03+2019_C2/about	2018-2019
111.	Baskarudyn modelderi men adisteri	IT04	Sharipova Birzhan Dabaevna	http://open.atu.kz/courses/course-v1:ATU+IT04+2019_C2/about	2018-2019
112.	HTML	IT05	Seitbekova Gulzhan Orazbakovna	http://open.atu.kz/courses/course-v1:ATU+IT05+2019_C2/about	2019-2020
113.	Algorithm, director kurylymy w / e programlau	IT06	Ismayilov Amankeldi Yesirkegenovich	http://open.atu.kz/courses/course-v1:ATU+IT06+2019_C2/about	2019-2020
114.	Economy	IT07	Sharipova Birzhan Dabaykyzy	http://open.atu.kz/courses/course-v1:ATU+IT07+2020_C2/about	2019-2020

115.	Web technology	IT08	Kerimbayeva Venera Zharasovna	http://open.atu.kz/courses/course-v1:ATU+IT08+2020_C2/about	2019-2020
116.	JavaScript tyli	IT09	Aituganova Zh.T. Medetbaeva S.A.	http://open.atu.kz/courses/course-v1:ATU+IT09+2020_C2/about	2019-2020
Faculty of light industry and design					
Department "Design"					
117.	Kiim zhane sön tarihy	D01	Togabaeva Gulvira Shakenovna	http://open.atu.kz/courses/course-v1:ATU+D01+2019_C2/about	2018-2019
118.	Materialman zhymys zhasau	D02	Zhumanazarova Aliya Erbolatkyzy Kenzhebayeva Ақпұр Мықтыбайқызы	http://open.atu.kz/courses/course-v1:ATU+D02+2019_C2/about	2018-2019
119.	Old Russian architecture	D03	Parfenova Elena	http://open.atu.kz/courses/course-v1:ATU+D03+2019_C2/about	2019-2020
120.	Renaissance art	D04	Parfenova Elena	http://open.atu.kz/courses/course-v1:ATU+D04+2019_C2/about	2019-2020
Department "Technology of textile production"					
121.	Zhenil onerkәsip bұyymdarynyn materialtanuy	TTP01	Abishova Aigul Slanbekovna	http://open.atu.kz/courses/course-v1:ATU+TTP01+2019_C2/about	2019-2020
Department "State and foreign languages"					
122.	Russian language (level A2)	GiIYA01	Mizanbekov Serik Kospievich	http://open.atu.kz/courses/course-v1:ATU+GiIYA01+2018_C2/about	2018-2019
123.	Basic English Language A1-A2 ATU	GiIYA02	Ainur Abdullayeva	http://open.atu.kz/courses/course-v1:ATU+GiIYA02+2019_C2/about	2018-2019
124.	English language	GiYA03	Khadzhiev A.Kh Erdaliev M.S. Karakulova L.Zh Nigmatullaeva G.T	http://open.atu.kz/courses/course-v1:ATU+GiYA03+2020_C2/about	2019-2020
joint venture					
125.	Innovative educational technologies and didactic models	CIET	Serikkyzy M.S. Togabaeva G.Sh.	http://open.atu.kz/courses/course-v1:ATU+IS01+2019_IS/about	2019-2020

126.	Implementation of Massive Open Online Courses (MOOCs): principles, tools, practice	FDO01	Medvedkov E.B. Kalabina A.A. Serikkyzy M.S.	http://open.atu.kz/courses/course-v1:ATU+FDO01+2019_C2/about	2019-2020
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Director of CIET Kalabina A.A. 06/15/2020