TAJIK NATIONAL UNIVERSITY
CHEMISTRY FACULTY

DEVELOPMENT PROGRAM OF THE CHEMISTRY FACULTY OF TAJIK NATIONAL UNIVERSITY 2022-2026

DUSHANBE - 2022

I. HISTORY OF THE ESTABLISHMENT OF THE CHEMISTRY FACULTY OF THE TAJIK NATIONAL UNIVERSITY

The structure of the Tajik State University was signed by the chairman of the Council of Ministers of the USSR I. Stalin and the chairman of its administration P. Chadaev on March 21, 1947 under number 643, according to which there were four faculties: Physics and Mathematics (with chemistry department), Geology, Biology, History and Philology. In 1948 the university had three faculties: Geology and Soil Science (dean Prof. A.S. Raevsky), Biology (dean Ratsiborsky) and History and Philology (dean Prof. T.P. Manyulova). In the same year, along with 13 departments established at the University, one of them was the Department of Chemistry (headed by Professor Raevsky).

Due to the fact that in the early years of the university there was no competition for admission of applicants to the Faculty of Physics and Mathematics (with a department of chemistry), the Department of Chemistry at this faculty did not function, but the Chemistry Faculty did. The department of chemistry was created in 1948, when Tajik State University was founded, and from 1948 to 1952 it was headed by professor A. S. Raevsky. In 1953-1955 the department had no director. From 1955 to 1960 the head of the department of chemistry was a participant of the World War, holder of several orders and medals, graduate of Leningrad State University (now St. Petersburg), candidate of chemical sciences, associate professor Alexander Ivanovich Novikov, during this period there were only 5 teachers and 3 laboratory assistants in the chemistry department.

Then, in 1957, the Department of Chemistry at the Faculty of Biology was established on the basis of this department and 25 applicants were admitted to the specialty of chemistry. In 1959 the Department of Chemistry was separated from the Faculty of Biology into an independent faculty and the first students were enrolled in the 3rd year (Dean, Associate Professor Khairy Rajabova) and 115 students were enrolled in this department. Until 1961, there was only one department at the chemistry faculty, the chemistry department. In 1961, the chemistry faculty was divided into two departments: general chemistry and organic chemistry, and in 1963 general chemistry was divided into two departments: analytical chemistry and radiochemistry; inorganic and physical-colloid chemistry were separated. In 1964, the department of inorganic and physical-colloid chemistry was divided into the departments of inorganic and physical-colloid chemistry. In 1965, the Department of Analytical Chemistry and Radiochemistry was divided into the Department of Analytical Chemistry and the Problem Laboratory of Rare Elements. In July 1969, the Department of Methods of Teaching Chemistry was established on the basis of the Department of Inorganic Chemistry. In 1992 the Chair of High Molecular Compounds and Chemical Technology was established on the basis of the Departments of Organic Chemistry and Methods of Teaching Chemistry. The department of applied chemistry and radionuclides was founded in 1994 on the base of the problem laboratory of rare elements. By the decree of the university rector in 2009 the departments of applied chemistry and radionuclides and methods of teaching chemistry were merged and

functioned under the name of applied chemistry department for 3 years, in connection with the discrepancy in the curriculum specialty of the department (02040600-applied chemistry) by the order of the university rector In 2012 the departments of methods of teaching chemistry and applied chemistry continue to function as separate departments.

There are currently seven departments in the structure of the faculty:

- inorganic chemistry;
- organic chemistry;
- analytical chemistry;
- physical and colloid chemistry;
- methods of teaching chemistry;
- high molecular weight compounds and chemical technology;
- applied chemistry.

Founders of the Department and Chemistry faculty. It can be said that the first founders of the department, chair and chemistry faculty were the following professors: Raevsky A.S., Novikov A.I., Rajabova H.N., Danilenko E.F., Zegelman A.B., Basitova S.M., Lyskova Y.B., Numanov I.Yu. and were others. After the death of the first dean of the faculty, Khairy Rajabova (1959-1960), the posts of heads of the faculty were successively occupied by the following 12 teachers, each of whom made a worthy contribution to the development and improvement of educational-scientific system and strengthening the material and technical basis of the faculty:

-Associate Professor A.I. Novikov (1960-1961);
-E.F. Danilenko, senior lecturer (1961-1962);
-candidate of chemical sciences., Associate Professor A.B. Zegelman (1962-1968);
-Associate Professor (later Dr. of Chemistry, Professor) Yakubov H.M. (1968-1989);
-Associate Professor (later Dr. of Chemistry, Professor) Yusupov Z.N. (1989-2000);
-Associate Professor Kudratova L.H. (2000-2006);
-Associate Professor Rajabov T.R. (15.05.2006 - 12.09.2007);
-Associate Professor S.S. Saidov (12.09.2007-16.01.2008) Executive Dean;
-Prof. M.B. Karimov (16.01.2008-15.12.2008);
-Associate Professor S.S. Saidov (2008-2019);
-Associate Professor Faizulloyev E.F. from 30.08.2019 to the present.

II. GENERAL INFORMATION ABOUT THE DEPARTMENT

The Chemistry faculty of the Tajik National University is considered as the main and leading center of higher professional education in the field of chemistry and chemical technology in the Republic of Tajikistan. Chemistry faculty acts as

an integral part of the Tajik National University in implementation of state policy of training of high qualified scientific and scientific-pedagogical personnel, implementation of state programs and standards, provides stable and quality personnel in scientific and research institutions, general, secondary and higher professional education, laboratories, enterprises and industries of state and non-governmental organizations of the republic and outside of it. Since its foundation up to now the faculty has its position in the society in the direction of training talented specialists in chemistry. During the years of independence, with increasing number of higher professional education institutions, entry of the Republic of Tajikistan to the international educational space, emergence of competition in the field of educational services the status and rank of the teaching staff has not decreased, it develops according to national values of statehood, time of independence and labor market standards.

There are 7 departments (6 specialized), 1 traditional library, 1 electronic library, 32 educational laboratories, 11 scientific laboratories, 1 Internet Center, 1 computer lab, 2 linguistic classrooms, 1 test center, 7 scientific circles of students in the departments, 6 scientific club of the faculty and the Olympic team.

In the structure of the faculty there are 6 specialized departments and one department of methodology of teaching chemistry, which are responsible for the promotion of educational, scientific and training activities. Specialized departments:

- inorganic chemistry;
- analytical chemistry;
- organic chemistry;
- physical and colloid chemistry;
- high molecular weight compounds and chemical technology;
- applied chemistry;

The faculty offers 5 specialties at the undergraduate level (31050102-chemistry (profession: chemist, teacher), 3105010101-applied chemistry (profession: chemist, researcher), 48010100-chemical technology of inorganic substances, materials and products (profession: chemical engineer technologist), 48010300-chemical technology of natural energy and carbon materials (profession: chemical engineer-technologist) and 54010300-physico-chemical methods and means of quality control of products (profession: graduate engineer), 4 specialties at higher education level (31050102-chemistry (profession: chemist), 3105010101-applied chemistry (profession: chemist, researcher), 48010100-chemical technology of inorganic substances, materials and products (profession: chemical engineer-technologist), 48010300-chemical technology of natural energy and carbon materials (profession: chemical engineer-technologist) and 9 specialties: PhD in engineering, PhD in (6D011200-(1)-the theory and methodology of education and training (chemistry) (degree: Doctor of Philosophy (PhD), Ph.D. in the specialty), 6D060600-(1)-inorganic chemistry 6D060600-(04) - physical chemistry (degree: Ph.D. (PhD), Ph. in the specialty), 6D060600-(06) - high molecular weight chemistry (degree: Ph.D. (PhD), Ph. in the specialty), 6D060600-

(03) - organic chemistry (degree: Ph.D. (PhD), Ph. in the specialty), 6D072000 - chemical engineering of inorganic substances (degree: Doctor of Philosophy (PhD), Doctor in Specialty), 6D072100 - Chemical Technology of Organic Substances (degree : Doctor of Philosophy (PhD), Doctor in Specialty), 6D073700 - Mineral Processing (degree : Doctor of Philosophy (PhD), Doctor in Specialty), and 6D073900 - Petroleum Chemistry (degree : Doctor of Philosophy (PhD), Doctor in Specialty) prepare specialists. Training in the study groups of the faculty is conducted in two languages: Tajik and Russian.

To provide the educational process with equipment and information and communication technologies, as well as for scientific and research activities Methodically serve teachers and students. Of the faculty's 85 computers, 38 are connected to the Internet.

At the present time 63 lecturers, including 7 doctors of sciences, professors, 41 candidates of sciences, associate professors and 15 assistant professors are involved in teaching-methodical activity at 7 chairs of the faculty. It is worth noting that 76.19 percent of full-time faculty members are people with academic degrees. The number of students 903 (569 full-time and 334 part-time), 25 masters, 5 doctoral students and 7 Ph.D. students, of whom 318 in the budget groups (124 correspondence students) and 561 people study in the contract groups (210 correspondence students). There are 26 foreign citizens studying at the faculty, including 24 students, 1 master's student and 1 doctoral student. In total there are 475 male (411 full-time and 64 part-time students) and 453 female (183 full-time and 270 part-time students) students out of 928 students and masters at the faculty. There are 32 students, among them (13 males and 19 females). Faculty has 1 building, and there are 913 places for students in two shifts. The full-time course of study at the faculty is organized according to the requirements of the Bachelor's and Master's curricula, while at the part-time department the enrollment of students is made on the basis of the Bachelor's and Specialist's curricula. (intermediate) and specialist degrees.

Of the 903 students on the faculty (569 full-time and 334 part-time students), the proportion of specialty students is as follows:

31050102 - Chemistry, 426 students (86 Russian groups) (221 full-time and 205 part-time);

31050101 - Applied Chemistry, 235 students (106 full-time and 129 part-time);

48010100-chemical technology of inorganic substances, materials and products, 86 full-time students;

48010300-chemical technology, including natural energy and carbon materials, 80 full-time students;

54010300-physical and chemical methods and means of quality control of products, 76 full-time students;

The implementation of this program contributes to the development of quality education and training, strengthening the material and technical base and human resources capacity of the faculty, improving the condition of laboratories and adaptation of the educational process to the requirements of modern standards, raising the status of the faculty and other important aspects of the field.

III. PURPOSE OF THE PROGRAMME

The main goal of the program is to train specialists competitive in the labor market at the bachelor's, master's and doctoral levels, PhD, doctorate in the specialty, to strengthen the material and technical base, the use of new and modern methods of teaching, development of programs that meet the requirements of current industry standards, promoting the importance of knowledge and use of modern technologies and foreign languages for various spheres of the national population. At the same time, ensuring the deep integration of education, science and production is another goal of this program.

The focus is on improving the quality of education in higher education institutions of the country, training talented and competitive specialists for the labor market, increasing student literacy, educating students in the spirit of patriotism and reverence for national values.

The President of the Republic of Tajikistan respected Emomali Rahmon in many of his meetings and speeches, during his meetings with representatives of various strata of society and representatives of education and science raised the issues of training of highly qualified national personnel that meet international standards, and instructed officials to fulfill these tasks, gives instructions and specific assignments. In particular, in one of his speeches they emphasized the following: "It is correct that the activity of a teacher consists mainly of two directions or important aspects: teaching and education. The two are inextricably linked and one cannot be imagined without the other. A true teacher must always keep this connection in mind. It is the teacher who constantly learns and teaches others what he or she has learned. However, as the analysis shows, the quality of education and professional training of university students still cannot meet the requirements of our time. In response to the constant care and support of the state and the national government, you, teachers and university officials and employees, are obliged to use all your knowledge, experience, skills and abilities to seriously improve the quality of education and educate the younger generation of the country in the spirit of self-knowledge and self-awareness, paying tribute to national values and straightforward mores."

Therefore, the Chemistry faculty at the Tajik National University, taking into account the above factors, considers it necessary to develop and adopt a Faculty Development Program and considers it appropriate to make serious changes in the educational, research and educational life for 2022-2026. This initiative as a whole is aimed at improving the level and quality of education, the responsibility of teachers in the upbringing and education of students, increasing student literacy, educating them in the spirit of patriotism, understanding and protection of national interests.

Development program of the Chemistry faculty is considered a fundamental scientific program document, which includes a long-term plan, goals, priority areas of development of chemical science, factors to improve the level and quality of education, the introduction of innovative methods, modern information and communication technologies in the education and training process.

IV. PROGRAM OBJECTIVES

The department has clear and specific goals that guide its continued development. Including:

- uniting the scientific, scholarly, and creative energies of faculty members to address important issues necessary for the development of the faculty;
- Improvement and intensification of research activities through meetings, round tables, seminars, conferences, and scientific symposiums;
- timely implementation of requirements and programs in education in Tajikistan, in order to improve the level and quality of education and training, training specialists who meet the requirements of the labor market, especially highly qualified specialists;
- invite qualified specialists from abroad to hold lectures on the Chinese language, scientific, educational and training seminars;
- in the form of a presentation using modern technology for the protection of graduate, diploma and master's theses. Comprehensive support of discoveries, inventions, developments and scientific and practical innovations of students, reflected in research papers and diploma works and implemented in production;
- Creating conditions in accordance with the educational process in the department, current and major repairs of the large chemistry hall, repair and renovation of the periodic system of chemical elements by D.I. Mendeleev, laboratories and individual rooms;
- Equipping scientific and educational laboratories with chemical equipment and instruments;
- Training teachers in modern technologies by organizing professional development courses at the Institute for Advanced Training of Teachers of Higher Professional Education Institutions under the Ministry of Education and Culture;
- Improvement and development of the element of exchange of students, researchers and teachers with other institutions of higher professional education in the republic and beyond, in order to improve skills and find modern methods of development of higher education in the faculty;
- Increase the level and efficiency of research work in the departments, to establish the implementation of scientific and practical work on the basis of contracts with industrial enterprises;
- Connecting the scientific and practical work of teachers and students to production. Thus, taking measures to obtain additional material and financial income from research work, inventions and discoveries;
- Organization of a unified database of achievements of students, researchers in the scientific, educational, cultural and political spheres;

- organization of the faculty museum;
- to improve the activities of the teaching staff in the direction of training specialists with academic degrees, to find ways to attract more talented young people to scientific and pedagogical work, to ensure the effective operation of master's and doctoral studies, doctoral studies of highly qualified specialists in new areas of science and technology;
- on the basis of the faculty to organize an Olympiad in chemistry (Cup of the Chemistry Department of TNU) among students of higher educational institutions of Tajikistan;
- development of textbooks, manuals, and other means of popularizing science and knowledge among students;
- in the spirit of patriotism, morality, national consciousness, pride in patriotism, responsibility to the Motherland and society, educating students and masters;
- Involvement of students in creative and creative work, prevention of alienation and xenophobia among young people, prevention of consequences of joining extremist organizations and organizations and their dangerous influence on the worldview of teachers and students on the basis of strategic programs of the Republic of Tajikistan;
- Taking and implementing the necessary measures to attract more citizens of the republic and foreigners to study at the faculty, including at the level of master's and doctoral studies;
- receiving national and international science grants;
- promote cooperation with other institutions of higher professional education and scientific institutions of the republic;
- Involvement of faculty from foreign countries in the process of education and science in the department;
- Various competitions to improve the rating of scientific and educational activities of teachers;
- Development and organization of a sign (logo), website and e-mail address of the Faculty, including a special page on the University website to ensure communication and cooperation between other research and educational centers and to represent the achievements of the Faculty;
- In order to improve the material and technical base of the faculty, with the support of the University Council, expand funding for the purchase of reagents, vessels, testing instruments, and other necessary materials;
-structural changes in the composition of departments and faculty;
- opening a new specialty depending on the requirements of the labor market;
- organization of a database of faculty departments of production enterprises and general educational institutions;
- taking effective measures and carrying out targeted activities to maintain the reputation of the Department of Chemistry as a training center for highly qualified personnel and a training center for scientific, scientific-pedagogical and technological personnel;
- taking specific measures to provide the domestic labor market with talented, knowledgeable, and competitive personnel;

- Ensuring the active participation of faculty members in the development and discussion of the most important programs and projects in the field;
- Increasing the role of existing department chairs in the direction of using new innovative methods in the educational process;
- Increasing the level and quality of education for students;
- performance of scientific work in connection with the priority areas of research work;
- effective use of the results of research work in the process of education and production;
- facilitating the issue of retraining and advanced training of faculty members in prestigious domestic and foreign scientific and educational centers;
- expansion of educational activities;
- Ensuring favorable conditions for industrial training and education of students and masters;
- increasing the quality of lectures, practical and experimental classes;
- Enhancing the contribution of young faculty members to the process of education, research and educational work;
- creation of favorable conditions for obtaining grants, scholarships and other additional financial sources for the training of scientific and pedagogical staff, equipping the educational process with information and communication technologies and new chemical equipment and devices;
- Ensuring the rights and public interests of teachers, students, undergraduates, graduate students, and doctoral students;

In order to achieve these goals, the following tasks must be accomplished:

- Maintaining the prestige and position of the faculty as the main center for training highly qualified personnel in the field of chemistry and materials science in Tajikistan;
- Creation of an effective system of work in the field of education and training of students;
- Strengthening the intellectual potential of the teaching staff in the development of priority and important scientific issues identified by the Government of the Republic of Tajikistan through the Program and Strategy;
- introduction of the results of scientific research into the process of education and production;
- Strengthening international cooperation;
- Developing a transparent and effective evaluation system for faculty and staff to improve a healthy work environment;
- Improvement of material and technical, educational, methodological and research base in order to provide solutions to the priorities of the faculty, bringing it in line with modern requirements;
- Creating a favorable and healthy working environment among the faculty and staff of the department;
- Creating an atmosphere of trust and confidence, mutual respect, strengthening ideas of goodness and responsibility, and mutual support.

V. EDUCATION SECTOR

Education sector is considered an important and priority part of the Development Program of the Chemistry faculty, taking into account the main directions of development of higher education institutions in the country, including research on priority areas of science in modern conditions, the integration of science and practice, the scientific essence of the educational process, the introduction of forms, modern methods and technologies in the educational process, increasing the responsibility of teachers in the educational process and student learning levels, the relationship of education and learning, improving social

In this direction, the goal of the Development Program of the Chemistry faculty is to increase the level of education and training, reforming and improving the educational process, training highly professional and competitive in the labor market specialists with chemical and technological knowledge.

In order to achieve these goals, faculty members need to do a number of things to implement this Program to enhance the quality of teaching and learning, for as long as faculty set their goals and outcomes toward increasing knowledge and if students do not understand and strive for spirituality, the effectiveness of their teaching will not be significant. Students need to feel that their instructors are truly determined and willing to teach them. Therefore, faculty and staff need to be mobilized for the following activities:

1. In order to ensure a high level of quality education, stabilize the position of the Chemistry faculty of the Tajik National University in the market of educational, scientific and industrial services of the republic, the following tasks should be solved:

- By the beginning of the academic year (semester of the academic year) prepare the text of lectures, subject questionnaires, test questionnaires, slides, plans, and make electronic or hard copies available to students;
- Providing the educational process, development and elaboration of scientific, educational and methodological works of high quality and innovative character;
- introduction of active methods and modern technologies into the educational process;
- Providing information about the educational process;
- Modernization of the core disciplines of the departments;
- preparation of textbooks, teaching aids for all subjects stipulated by the curriculum of the current specialties of the faculty;
- Effective use of national elements in the educational process;
- Taking steps toward strict adherence to labor discipline in the teaching process by teachers;
- taking steps to eliminate absenteeism altogether;
- Preventing and avoiding the involvement of any arbitrary factors in an unreasonable and unjustified exchange of classes;

2) Organization, equipment and intended use of classrooms and laboratories in the educational process

- purposeful use of a large chemistry room, teaching labs, language lab, computer labs, and other specialized classrooms;
- Equipping classrooms with modern equipment (computers, video projectors, electronic whiteboards, etc.);
- Creation of new specialized laboratories and equipping them with modern chemical equipment;
- organization of centralized research laboratories and equipping them with new modern equipment;
- creating a modern digital library;

3) implementation of new educational technology that meets the requirements of the quality standard of education

- the use of active learning methods to increase the proportion of students' learning of academic subjects;
- Increasing the use of information and communication media in lectures and practical classes;
- Development and publication of new educational and methodological manuals for the implementation of educational programs;
- preparation of the Standard of specialties of the new generation and, in this connection, updating the current educational plans for the levels of bachelor's, master's and doctoral studies.
- Creation of new areas of master's degree programs at specialized departments;
- finalization and revision of educational programs and curricula, taking into account the priority areas of science and research topics;
- taking into account the development of public relations and the need for training of chemical-technological personnel in certain areas of the national economy, the establishment of new educational specialties.

In the process of improving the quality of education and the level of student learning, it is advisable to use new methods of teaching. These methods help to prepare specialists in accordance with the requirements and demands of modern society. The purpose of the use of innovation is to modernize the educational process in order to prepare specialists with a high level of theoretical and scientific knowledge, their competitiveness in the labor market.

The introduction of modern teaching methods requires the implementation of such measures:

- Regularly organizing and conducting open classes by faculty presenters and veterans in order to demonstrate and educate young educators on best practices in education and professional development;
- Creating a system of guidance and counseling by professors and faculty scientists for young teachers on lesson planning, the use of teaching methods, and the selection and implementation of modern technology;
- regular participation of department heads and veteran instructors in lectures and practical classes by young instructors, including access to classes between related departments;

- Inviting renowned scholars of universities and academic institutions, practitioners to give lectures and practical classes related to current qualification issues and related to the use of teaching and learning methods;
- Continuous improvement of modern methods of teaching the educational process;
- introduction of interactive teaching methods into the educational process;
- Effective use of popular and interactive teaching methods;
- Modernization of the system of training through targeted theoretical and practical classes, the use of additional and individual forms and methods of improving the level and quality of education (electives, student clubs, etc.);
- Creating a system of working with gifted students by organizing events, competitions, clubs on a wide range of educational programs and encouraging talented students to work in their specialty after graduation, involving them in scientific work;
- Retraining and professional development of teachers and staff in the use of modern technologies and modern information and communication tools in the educational process;
- organizing seminars, round tables, and conferences related to the use of modern teaching methods;
- implementation of continuous monitoring of the quality of education through a unified system of attendance evaluation, organization of the practice of independent examinations, control of the quality of education through questionnaires:

The most important issues of the educational life of the Faculty are discussed in the highest advisory and administrative body of the Faculty - the Council of Scientists and relevant decisions are taken on them, the implementation of which is mandatory for all specialized departments and subjects of the Faculty.

The Faculty Scientific and Methodological Council should take appropriate measures to provide the educational process with useful methodological recommendations, review and finalize curricula, work programs, syllabuses, examination tickets, test questionnaires, lecture texts, and take concrete measures to increase the content of lectures and practical classes.

The Faculty Secretariat coordinates the activities of specialized departments and other constituent structures of the Faculty in the implementation of tasks to improve the level and quality of education, discusses the implementation of additional activities in this direction.

VI. SCIENCE SECTOR

One of the priorities in the development of the Faculty is to conduct research activities. Research work is carried out in the specialized departments of the faculty, taking into account the importance of the issue under study in the development of chemical science, their everyday life in the conditions of the creation of an independent state, which are defined in the scientific - research plan of each department depending on the direction, issues and topics and approved.
The main objectives of the Department of Chemistry in the field of science are:

- openness of the activities of the Chemistry faculty of the Tajik National University in the field of science;
- adapting the scientific activities of teachers and students to the scientific requirements of our time;
- Creation of favorable conditions for research work;
- taking measures, in agreement with the University Board, to provide additional financial support for faculty members to create research and teaching papers;
- increasing the effectiveness of scientific knowledge;
- until 2025, all faculty members are preparing and defending PhD theses;
- increase in the number of teachers with the title of doctor of sciences;
- Increasing international cooperation in the field of science;
- organization and performance of basic scientific research;
- Increase the level of scientific and pedagogical maturity of the teaching staff, provide their training in the direction of modern methods of teaching.

The priorities for the development of science in the Department of Chemistry are:

1. Increasing the professional level of the teaching staff.

The dominant forms of professional development are as follows:

- retraining and improvement of theoretical and practical training of faculty members in prestigious domestic and foreign scientific and educational institutions;
- Taking measures to further improve the scientific library of the faculty and providing it with new scientific literature of domestic and foreign scientists, official publications of industry institutions, newspapers and other authoritative scientific-theoretical journals;

2. Increasing the scientific power of the specialized departments of the faculty.

- taking measures for the timely preparation and defense of dissertations for the degree of doctor and candidate of chemical and technical sciences;
- Development and approval of a plan of research activities of the departments of the Faculty for 2022-2026, taking into account the new achievements of modern science and the growing needs of society;
- the formation of scientific schools of specialized departments of the faculty. In this direction, to strengthen the activities of faculty members in the direction of participation and performance in scientific and practical and scientific-theoretical conferences of national and international level;
- maintaining the standing and reputation of Chinese studies and the preparation of its provisions;
- planning and holding the Republican forum of chemists, national and international scientific and practical conferences, round tables, seminars, Internet-conferences, distance conferences with other domestic and foreign scientific and educational institutions in the priority areas of research work;
- another important area of faculty research activity is faculty participation in dissertation councils and acting as an official reviewer of dissertations. Scientific theses and abstracts submitted to professors, as well as reviews of them, must be

discussed at meetings of related departments, joint meetings of related departments;
- Strengthening the work of scientific-theoretical seminars of young scientists of the faculty;

- expansion of educational activities;
- Ensuring favorable conditions for industrial training and education of students and masters;
- increasing the passability of lectures, practical and experimental classes;
- Enhancing the contribution of young educators in the process of education, research and educational work;
- creation of favorable conditions for obtaining grants, scholarships and other additional financial sources for the training of scientific and pedagogical staff, equipping the educational process with information and communication technologies and new chemical equipment and devices;
- Ensuring the rights and public interests of teachers, students, undergraduates, graduate students, and doctoral students;
To achieve these goals, the following tasks must be accomplished:
- Maintaining the prestige and position of the faculty as the main center for training highly qualified personnel in the field of chemistry and materials science in Tajikistan;
- Creation of an effective system of work in the field of education and training of students;
- Strengthening the intellectual potential of the teaching staff in the development of priority and important scientific issues identified by the Government of the Republic of Tajikistan through the Program and Strategy;
- introduction of the results of scientific research into the process of education and production;
- Strengthening international cooperation;
- Developing a transparent and effective evaluation system for faculty and staff to improve a healthy work environment;
- Improvement of material and technical, educational, methodological and research base in order to provide solutions to the priorities of the faculty, bringing it in line with modern requirements;
- Creating a favorable and healthy working environment among the faculty and staff of the department;
- Creating an atmosphere of trust and confidence, mutual respect, strengthening ideas of goodness and responsibility, and mutual support.
- Training of scientific personnel at the doctoral level, especially in specialization and recruitment of researchers should be carried out in accordance with the Regulations on training of scientific and pedagogical personnel at the Tajik National University. It is advisable to recruit researchers from among current graduates of the Chemistry faculty at the Tajik National University who have studied with "good" and "excellent" grades, have good knowledge of the state and foreign languages, and have a high sense of patriotism and responsibility;

- The specialized departments put under strict control the training of scientific and production personnel through the certification institute, attract talented, knowledgeable, noble people as applicants.
- Experienced teachers and school owners (professors and associate professors) can create their own scientific clubs and thereby involve a certain range of students in research on certain scientific topics.
- strengthening the development of links between chemical and non-chemical sciences, the active use of interdisciplinary knowledge in chemical education, taking into account the prospects of forming interdisciplinary scientific disciplines (nanotechnology and biotechnology);
- Establishment of mutually beneficial cooperation with the Higher Attestation Commission under the President of the Republic of Tajikistan in coordination with the University Council;

3. Preparing students to perform research work.

One of the directions of research activities of the Faculty is the creation and activities of the scientific community of students and scientific circles at the departments. In general, the scientific society of students unites the activities of scientific circles at the departments. It is advisable to educate students in the spirit of conducting research work from an early age. For this reason, they can start their activities in one or another of the scientific circles at the departments. Under the guidance of their research supervisors, at the expense of experienced professors with degrees, students have the opportunity to explore and discuss everyday topics of chemical science and prepare for a master's degree. Taking into account the abilities and talents of students, the management of faculties and departments can involve them to carry out research work in the order of the master's degree, title or doctoral degree in the specialty.

Including students in research activities consists of the following tasks:

1) Integration of scientific, educational and training processes;
2) formation of students' research skills;
4) familiarizing students with modern scientific methodology;
5) development of skills in working with scientific literature;
6) involvement of students in the research activities of the faculty;

2. In the educational process the use of modern educational technologies in order to form the basic skills of independent organization and conduct research activities. In this regard, the following educational forms with the following elements of scientific research are used:

- Scientific-methodical seminars on the basis of the departments of the faculty, admission and accession of 1st year students to the National Libraries and Faculty in order to develop the skills of working with scientific literature, databases, bibliographic lists (catalogs) and mastering the methods of preparing and writing scientific reports, term papers, graduation and diploma works, etc;
- conducting seminars to explain the scientific literature on various topics and sections of the academic discipline;
- Advising on the design of essays, term papers, theses and dissertations;

- formation of students' ability to write reviews of scientific materials, as a recommendation in seminars.
- organization of creative research groups of students within the framework of seminars on the study of individual laws in force;
- holding a scientific and educational conference for students at the end of the academic year;
- to support students' scientific circles in the specialized departments of the faculty;
- support and coordination of the scientific society of students of the faculty. The main activity of the Scientific Society of students should be: participation in the organization and conduct of scientific and practical conferences, round tables, competitions of scientific works of students, attracting students to participate in conferences and competitions of various levels;
- a list of the best scientific articles of students and their publication in scientific journals;
- participation of students in scientific conferences, competitions and contests;
- organization and conduct of the annual scientific-practical conference of students, masters, candidates of science, doctors of science in the specialty and young scientists of the faculty;
- Organization of a competition among students of the Chemistry faculty for the best term paper (annually in May and June);
- organizing and conducting the "Student Science Day";
- holding the competition "Best Student of the Year" based on the results of students' participation in the scientific activities of the Chemistry faculty (annually in May and June);
- identifying talented students and supporting students who are trying to continue their studies at the graduate level, helping students choose research questions for their future thesis research papers and selecting research materials;
- Creation of a database in the specialized departments of the faculty in order to provide scientific and methodological support for the research work of students;
- creating an electronic database of the best scientific publications of students;
- activation of the Olympic team.

VII. EDUCATION SECTOR

Educational activity is considered an integral part of the Faculty Development Program. The aim of educational activities of the Chemistry faculty is to educate students of the Faculty in the spirit of patriotism, self-awareness, honesty, integrity and goodwill, respect for teachers, adults and classmates through the implementation of a system of targeted educational work. According to these ideas, the education of students is carried out through targeted moral and spiritual and educational activities. The system of education is established in conjunction with moral, political, labor and spiritual upbringing. Implementation of the educational system requires the involvement of cultural traditions and spiritual

heritage. Educational activities among students are carried out continuously, continuously and systematically.
The activities and priorities of the educational activities are:
- Educating students in the spirit of patriotism, national consciousness and national identity, the inviolability of the territorial integrity and the integrity of Tajikistan;
- Compliance with the university's internal regulations and student rules;
- Education of students in the spirit of implementation of the Instructional Model of Head and Clothing for students of higher professional education institutions;
- to intensify the activities of the sponsors of academic groups taking into account the priority areas of expansion of educational activities among students. In this regard, it is considered advisable that academic group organizers be aware of all aspects of student activities and be constantly aware of their status;
- conducting mentoring sessions on everyday topics of educational life;
- Establishment of mutually beneficial working cooperation with the parents of students in light of the requirements of the Law of the Republic of Tajikistan "On the Responsibility of Parents in the Education and Upbringing of Children;
- Involving parents of students in the direction of mastering the classes, behavior and manners of communication of students and in improving the quality and level of education;
- Taking effective measures to ensure student participation in the classroom;
- Expanding outreach work on the issues of arriving to classes on time, not coming to the university in a private car;
- come to the university with a backpack, books, notebooks and other school supplies, compliance with the internal regulations of the hostel, refraining from smoking, drinking alcoholic beverages, on the territory of the faculty, university and dormitories;
- fulfilling the requirements of the bilateral and trilateral agreement concluded with the Tajik National University;
- Increasing the active participation of students in national and international conferences and retraining courses;
- receive regular information about the student's living conditions in the dormitory;
- Formation of a high moral culture of students;
- Encouraging healthy lifestyles, involving students in mass sports activities;
- organization of meetings with law enforcement officers, famous figures of science of the country, and alumni of the faculty;
- Educating students in the spirit of a positive attitude toward orphanages and homes for orphans and the disabled and institutions of general education;
- Facilitating student visits to theaters, museums, and exhibitions;
- promotion of cultural and literary events with the participation of intellectuals;
- Conducting and resuming a cultural and motivational event for faculty, staff, and students;
- Professional holiday "Day of Chemists;
- expansion of outreach and promotional work on scientific, educational publications and work in the library, book database, etc;

- Involving talented students in different kinds and genres of musical, cultural and sports art;
- the creation of an intellectual club for students;
- Fostering in students a careful attitude to the state and university property in the dormitory;
- fostering aesthetic taste in students;
- Conducting preventive and explanatory work related to the prevention of the causes of undesirable phenomena, such as drug addiction, alcoholism, regionalism, corruption and delinquency among young people;
- Formation of spiritual-political knowledge and patriotism of students;
- Support for student initiatives for the effective implementation of state youth policy;
- respect for universal and aboriginal values, rights and freedoms of citizens,
- Increasing tolerance in the student body;
- to promote the involvement of students in order to popularize their educational activities by creating public organizations (youth organizations, trade unions and other initiative groups).

VIII. NECESSARY RESULTS PROGRAM IMPLEMENTATION

- creation of material and technical base, personnel and training of qualified personnel in various areas of the national economy on the basis of modern technology;
- Increasing the level and quality of education, entering the single space of global education;
- training of scientific and technical personnel with a broad scientific outlook and good organizational and production skills;
- strengthening ties between the faculty and production enterprises, involving teachers and students in research activities aimed at the benefit of the state and the people;
- providing solutions to the problems of the republic through national specialists;
- developing the faculty's connections with the leading scientific and educational centers of the modern world;
- Using the best practices of international educational institutions in the process of training specialists at the faculty.

IX. FINAL PROVISIONS

Implementation of the Development Program of the Chemistry faculty of the Tajik National University for 2022-2026 for teachers, staff, colleagues and teachers of other departments and faculties of the Tajik National University, according to the current curriculum, teaching specific subjects at the Chemistry faculty is as follows:

1. Amendments and additions may be made to this Program if necessary. Changes and additions are made in the order of adoption of the Program.
2. The state of implementation of the Program is under constant study and control by the working groups, academic leaders, deputy deans, heads of departments and heads of related structures of the Faculty, on the results of which they report to the Faculty Council.