

MISSION OF THE EDUCATIONAL PROGRAM 70910227

MASTER’S PROGRAM IN “MEDICAL RADIOLOGY”

The modern higher education system of Uzbekistan is focused on training competent and competitive professionals across various sectors of society. Special attention is given to the practical orientation of student learning and the development of their intellectual potential, in accordance with educational standards.

The mission of the educational program in the specialty 70910227 – “Medical Radiology” is to train highly qualified, responsible, and clinically competent specialists who possess modern knowledge, practical skills, and research competencies in the field of radiological diagnostics and therapy. These specialists must be capable of working effectively in multidisciplinary healthcare and diagnostic institutions, upholding patient safety principles, and implementing innovative technologies in radiological practice.

The Department of Medical Radiology was founded in 1958. Initially, it was known as the Department of Roentgenology and Radiology, and before 1958, it operated as a course in “Roentgenology and Radiology” within the Department of Propedeutics of Internal Diseases. On September 14, 2023, the former Department of Oncology and Medical Radiology was reorganized into two independent departments — Oncology and Medical Radiology.

The main objective of Medical Radiology is to train specialists capable of meeting future demands in the field, equipped with the necessary body of knowledge, professional competence, and practical skills.

The “Medical Radiology” program clearly defines its strategic goals, values, educational objectives, scientific orientation, and collaboration with both the healthcare system and society, as well as its direct connection to the delivery of medical care.

The **core values** of Medical Radiology are quality, excellence, effectiveness, creativity, and innovation, as well as individual and institutional responsibility, beneficiary satisfaction, motivation and academic community development, teamwork, internal and inter-university communication, and proactive partnership with academic institutions, governmental and non-governmental organizations both within the country and abroad.

The development strategy of Medical Radiology is aimed at creating a highly efficient, technologically advanced, and clinically oriented system capable of ensuring early diagnosis, personalized treatment, and reducing morbidity and mortality among the population.

Achieving this goal depends on both external factors — such as joint efforts toward integration into European structures — and internal factors, including the vision and advancement of academic structures to meet European standards and reform the education system.

Key Strategic Directions for the Development of Medical Radiology:

1. Technological Modernization

- Equipping healthcare institutions with modern radiological equipment (MRI, CT, PET, angiography systems, digital radiography, high-resolution ultrasound);
- Developing teleradiology and PACS (Picture Archiving and Communication Systems);
- Implementing artificial intelligence (AI) technologies for image interpretation.

2. Strengthening Human Resources

- Updating educational programs in residency and master's degree levels;
- Regular professional development for radiologists, ultrasound specialists, and radiation therapists;
- Establishing centers for continuous professional education and development.

3. Standardization and Protocols

- Implementing unified clinical and diagnostic algorithms and imaging protocols;
- Ensuring quality assurance and patient safety in radiological diagnostics;
- Reducing unnecessary radiation exposure for patients.

4. Advancement of Research and Innovation

- Supporting research in radiological diagnostics, nuclear medicine, and radiation therapy;
- Developing and introducing new contrast agents, as well as functional and molecular imaging methods;
- Promoting international cooperation within joint research projects.

5. Integration into Clinical Practice

- Expanding the role of radiologists as active members of multidisciplinary teams;
- Developing interventional radiology;
- Increasing access to diagnostic imaging at the level of primary healthcare.

The *Medical Radiology* program clearly defines its strategic goals, core values, educational objectives, scientific research priorities, and its relationship with the healthcare system and society, emphasizing the link between education and medical care delivery.

The mission and objectives of the Medical Radiology educational program fully correspond to the general mission of the Master's Department and the institution as a whole. They are directed toward training highly qualified specialists capable of working effectively in clinical, research, and academic fields.

The **vision** of the Medical Radiology program is to become a high-tech, clinically oriented, and scientifically grounded discipline, ensuring the quality, safety, and efficiency of medical care through advanced imaging and minimally invasive procedures.

The mission and vision were developed within the framework of the Institute's strategic plan and approved at a meeting of the Academic Council, taking into account the recommendations of the Ministry of Health, employers, and the professional medical community. They reflect the priorities of sustainable healthcare development in the Republic of Uzbekistan, align with global goals in medical education (SDG 3, WFME Standards), and are oriented toward the implementation of evidence-based, personalized, and ethically grounded medicine.

The vision of the *Medical Radiology* program is closely connected with the missions of related educational programs and fully reflects their goals and principles. The program actively promotes interaction with all stakeholders, implements a flexible learning model in higher and postgraduate education, and supports the digitalization of all operational processes.

The vision presents a forward-looking scenario for the future, outlining the role and significance of Medical Radiology in society. The mission, vision, and values represent continuous progress and improvement not only within the institute but also in the national and international systems of higher education.

To successfully implement its mission, the *Medical Radiology* program adheres to the following **core principles**:

- University autonomy;
- Academic freedom;
- Social responsibility;
- Quality assurance;
- Managerial and financial efficiency;
- Equal opportunities and fairness;
- Transparency;
- Respect for the rights and freedoms of postgraduate students and faculty members;
- Independence from ideologies, religions, and political doctrines;
- Freedom of national and international mobility for students, faculty, and researchers;
- Partnership and consultation with social stakeholders in decision-making.

Since the mission serves as the foundation for the activities and development of the *Medical Radiology* program, it is communicated to all relevant stakeholders through multiple channels, including:

- Publication on the **official website** of the Institute — <https://adti.uz> — and through social media platforms <https://www.youtube.com/>, [Telegram: View @adtiuz_rasmiy](#), [Andijon Davlat Tibbiyot Instituti | Facebook](#), [ADTI.UZ | Rasmiy \(@adtiuz\)](#) • [Фото и видео в](#)

[Instagram, Andijon davlat tibbiyot instituti \(@AndijonDavlat\)/X,](#)
<https://www.linkedin.com/>

- Distribution through the **HEMIS platform** to all institute departments, faculty, students, and postgraduate trainees;
- Displaying mission-related plans and information on departmental notice boards;
- Inclusion in educational and methodological documents, such as syllabi and course outlines;
- Discussion of the mission during orientation sessions, advisory hours, and department meetings;
- Presentation of the mission during job fairs, open days, and meetings with employers;
- Dissemination through informational brochures and promotional materials (both printed and electronic formats);
- Presentation at international forums, symposia, and conferences attended by faculty and postgraduate students;
- Sharing information with radiologists and professional partners during collaborative events and meetings.

An important aspect of the higher education system is the integration of education with science, business, and industry. These issues are also relevant within the framework of the State Program for the Development of Education and Science of the Republic of Uzbekistan, as well as in the context of the State Healthcare Development Program for 2020–2025.

Training under accredited educational programs provides master's students with the necessary knowledge and competencies to deliver medical services tailored to the individual characteristics of each patient, in accordance with the stated objectives of the program.

The educational program, in particular, is actively involved in the national development of education. In fact, *Medical Radiology* demonstrates continuous development and clear adaptation to changes not only in the educational environment but also in the integration processes of the scientific, educational, and clinical sectors of the healthcare system in our country.

The purpose of the *Medical Radiology* educational program is to train highly qualified specialists in the field of medicine capable of providing professional medical care to the population. The program takes into account the individual characteristics of patients so that graduates can successfully adapt to diverse healthcare needs and conditions, ensuring effective treatment and care in accordance with the unique requirements of each patient. The program is focused not only on the formation of professional competencies but also on the development of scientific thinking, clinical ethics, an interdisciplinary approach, and social responsibility.

The goals of postgraduate training are defined with consideration of:

- the priority directions for the development of the healthcare system of the Republic of Uzbekistan;
- international approaches to the training of radiologists (ESMO, ASCO, WFME);
- current regional challenges in radiology (early imaging diagnosis of breast cancer, cervical cancer, fetal pathology, gastric cancer, central nervous system tumors, and thyroid diseases).

The aim of the *Medical Radiology* educational program further specifies its orientation toward a particular type of professional activity, taking into account labor market needs and in line with the Master's program strategy. The program prepares future graduates to provide qualified medical care to the population, considering the individual characteristics of patients, as stated in the program objectives.

Core Values of the Educational Program:

- Professionalism and humanism in clinical practice;
- Critical and scientific thinking;
- Ethical and legal responsibility;
- Individualized approaches to patient care;
- Integration of interdisciplinary knowledge, including anatomy, pathological anatomy, surgery, internal medicine, oncology, ophthalmology, otolaryngology, neurological diseases, neurosurgery, and other related fields.

The program places special emphasis on research activities, encouraging scientific investigation across various areas of medicine, promoting innovation, and translating scientific discoveries into clinical practice to improve patient health. Research projects conducted by master's students are aimed at solving real problems in radiological practice, including improving screening methods, evaluating molecular markers, analyzing pharmacoepidemiological data, and introducing new approaches in therapy and palliative care.

It is emphasized that medical services provided to individual patients play a vital role in strengthening the overall public health of the population. This external effect serves as a factor in increasing societal productivity and contributes to the further economic development of the country.

In line with the priority objectives of the National Healthcare Development Program, special attention is given to “strengthening the health of the population through ensuring sanitary well-being, preventing risk factors, promoting healthy nutrition, and encouraging a healthy lifestyle.” The educational program aligns with this mission by preparing graduates to play an active role in health promotion and developing their competence as health advocates.

The master's program as a whole is focused on ensuring high-quality education, relying on global scientific trends and principles established in the long-term development programs of leading international scientific and educational institutions. The mission and objectives of the *Medical Radiology* program were formulated in line with national strategies, educational and healthcare development plans, as well as the strategy of the master's program itself, integrating the latest advances in national and international medicine.

The participation of master's students and faculty members in defining the mission and learning outcomes of the educational program is ensured from the earliest stages. Faculty members are responsible for the development of the program, monitoring labor market needs and specific requirements, and determining the list of professional standards and qualification criteria that form the basis of the program. Master's students participate as full members in the activities of the Institute's collegial bodies.

The updating of quality assurance policies is an integral part of the continuous development of the master's program. Therefore, the analysis and revision of this document are carried out systematically within the Institute. This process reflects the dynamic needs of stakeholders — including faculty, students, and employers — as well as changes in regulatory documents issued by the Ministry of Higher Education, Science, and Innovation of the Republic of Uzbekistan, national program documents, the University Charter, Academic Policy, and other institutional regulations.

Each year, the Institute, in cooperation with the Department of Educational Quality Control, conducts an **online survey among students and master's students** to evaluate their satisfaction with the implementation of the educational program. (<https://vote.adti.uz/login.php>)

The results of the survey are discussed at the meetings of the **Academic Council** of the Institute.

The quality assurance process, which is a core concept of the mission, includes annual reviews of the structure and content of the *Medical Radiology* educational program, the assessment of its material and non-material resources and procedures, as well as the evaluation of program effectiveness with the participation of key stakeholders. Revisions of the program are aimed at updating its content in accordance with the latest scientific achievements, expectations of master's students, employers' needs, and labor market requirements.

The basis for program revision includes employers' feedback expressed during meetings of the *Department of Medical Radiology* and the Program Committee, where they are represented as members. Annual review meetings, program evaluations, results of student surveys, and

teachers' feedback during departmental methodological sessions also serve as grounds for adjustments.

Taking into account all the introduced changes, the updated *Medical Radiology* educational program is submitted to the administration of the relevant departments for review and feedback within their areas of competence. In cases of systemic inconsistencies, the issues are escalated to the Department of Academic Affairs and **the** Vice-Rector for Academic Affairs for consideration.

The transformation of the Medical Radiology program includes the following key aspects:

1. Internationalization and scientific capacity building: Expanding the influence of the specialty at both national and international levels and strengthening scientific potential.
2. Improvement of education quality: Ensuring high-quality educational services through continuous quality control at the department level.
3. Digitalization and compliance with standards: Developing effective management through digital transformation and adherence to national and international standards.
4. Marketing and departmental image: Building a positive image of the department in the educational market using modern marketing tools.
5. Human capital management: Increasing efficiency through competency development, team spirit, and proactive staff engagement.
6. Modernization of infrastructure: Updating and expanding the material and technical base of the department to meet modern educational standards.

The mission of Medical Radiology reflects the educational strategy in accordance with the State programs for the reform of medical education of the Republic of Uzbekistan. In order to ensure conditions for the development of medical science, training systems, advanced training, and retraining of personnel in the field of healthcare, a Development Concept was approved in strategic partnership with leading international universities and medical organizations. The mission is to contribute to the development of medicine and healthcare through the accelerated practical implementation of breakthrough scientific discoveries, the introduction of innovative diagnostic and treatment technologies, the training of future leaders in science and practice, and the promotion and use of evidence-based, personalized, and preventive medicine to improve health, quality of life, and longevity.

The educational program in "Medical Radiology" is developed taking into account society's expectations regarding the intellectual, personal, and behavioral qualities and skills of the graduate, which determine their readiness for independent life and productive professional activity within modern market relations in society. In order to ensure conditions for the

development of medical science, training systems, advanced training, and retraining of physicians, close strategic partnerships are maintained with leading international universities and medical organizations. Its mission is to contribute to the development of therapy through the accelerated practical implementation of breakthrough scientific discoveries, the introduction of innovative diagnostic and treatment technologies, the training of future leaders in science and practice, and the promotion and use of evidence-based, personalized, and preventive medicine to improve health, quality of life, and longevity.

At the postgraduate level, theoretical and practical components are provided, aimed at enhancing the clinical training of master's students and implementing a patient-centered approach to achieve high outcomes in the educational process. During patient-oriented training, the graduate develops the competencies necessary for highly professional clinical practice, the ability to work independently and in a team, and demonstrates readiness for continuous learning and participation in lifelong medical education and professional development.

The educational programs also include competencies that reflect the mission and values of education, such as maintaining a high level of competence, information literacy, ethical behavior, integrity of personality, honesty, altruism, service to society, adherence to the professional code, fairness, and respect for others.

The key stakeholders in the EP "Medical Radiology" systematically participate in the development of the mission. The review and updating of the mission is a comprehensive process involving all stakeholders: the master's program administration, academic staff, master's students, employers, and representatives of professional medical organizations.

The Department of "Medical Radiology" periodically initiates the procedure for updating the mission, vision, values, academic objectives, and principles of the master's program, which directly determine all aspects related to the quality of the educational and research process.

The mission, vision, and objectives of Medical Radiology are reviewed and updated periodically. It is of great importance for Medical Radiology that a wide range of stakeholders are involved in the formulation of its mission.

Considering the diversity of EP, the missions of the programs included in the curricula are reviewed and updated during departmental meetings. Employers, graduate students, and the administration of the Master's program actively participate in this process.

Educational programs are continuously updated, with both external and internal factors serving as prerequisites. External factors include national and international regulatory and instructional requirements, priorities of state health policy, changing needs of employers, graduates, and the professional community, labor market demands in healthcare, academic mobility of students, trends in the socio-economic development of the country and region, and

monitoring of international standards and new requirements of healthcare organizations. Internal factors include the demand for the educational program, motivation of academic staff, qualifications and level of training of the academic staff, among others.

It should be emphasized that the wide range of stakeholders of the educational program includes academic staff, master's students, representatives of healthcare and education management bodies, professional medical associations, and the general public.

The primary objective is to identify new labor market requirements in the healthcare sector, introduce new elective courses to individualize master's training, improve conditions for clinical practice, and other related goals.