



## **Strategy for the implementation of Artificial Intelligence at JSC “M. Tynyshbayev ALT University”**

### ***Introduction***

The implementation of Artificial Intelligence (hereinafter — AI) at JSC “ALT University named after Mukhamedzhan Tynyshbayev” is a priority area of digital transformation and innovative development.

This strategy is aimed at creating a comprehensive system for integrating AI into academic programs, improving faculty qualifications, modernizing infrastructure, and establishing ethical standards for the use of AI.

The application of AI technologies makes it possible to improve the quality of education, make the learning process more adaptive and modern, as well as prepare students for the challenges of the digital economy and technological future.

### ***Goals of the Strategy***

1. Implementation of AI-related disciplines and programs in educational fields;
2. Enhancement of digital literacy among university faculty and staff;
3. Creation of modern infrastructure for the development and implementation of AI solutions;
4. Establishment of ethical and legal standards for the use of AI;
5. Promotion of scientific research and student projects in the field of AI.

## **1. Key directions and stages of strategy implementation**

### **1.1 Integration of Artificial Intelligence into the educational process**

- Introduction of the course “Fundamentals of Artificial Intelligence” into all educational programs starting from the 2024–2025 academic year;
- Launch of new degree programs:
  - 6B06126 — Applied Artificial Intelligence (2024–2025 academic year);
  - 6B06328 — Information Security Systems (2025–2026 academic year);
  - 6B06118 — Software Engineering (2024–2025 academic year);
  - 6B06116 — Information Systems (2024–2025 academic year);
  - 6B06172 — Big Data Technology (Urumchi Vocational University) (2025–2026 academic year);
- Development of digital educational and methodological resources for the course “Fundamentals of Artificial Intelligence”;
- Utilization of international platforms such as Coursera, Gamma.app, Synthesia, ChatGPT, and others to enhance the learning process;



- Organization of student-driven initiatives, including projects, hackathons, and AI development competitions;
- Introduction of personalized learning elements supported by AI technologies.

### **1.2 Faculty Training and Development**

- Familiarization with the *Guidelines for the Use of Artificial Intelligence in Academic Activities* and the national inter-university standard of the Republic of Kazakhstan;
- Organization of online courses, master classes, and summer and winter schools;
- Completion of specialized professional development programs in the field of AI;
- Formation of an internal faculty expert community on artificial intelligence.

### **1.3 Development of infrastructure for AI integration**

- Modernization of server and digital infrastructure to support data processing and AI model training;
- Establishment of artificial intelligence laboratories;
- Development of an internal platform for the automation of educational processes using AI, including user-friendly interfaces for both students and faculty;
- Deployment of cloud-based solutions and machine learning tools.

### **1.4 Ethical and legal standards**

- Training of faculty and students on issues of ethics, personal data protection, and security in the use of AI;
- Development and adoption of a *Code of Ethical Use of Artificial Intelligence*;
- Organization of round tables, public lectures, and seminars dedicated to the ethical dimensions of AI application.

## **2. Strategy implementation management**

To ensure the successful implementation of the Strategy, a comprehensive management system has been established, including the following:

### **Responsible units and stakeholders:**

- Department of Academic Planning and Control (DAPC);
- Institute Directors;
- Heads of Departments;
- Department of Information Technology;
- Managing Director for Digitalization;
- Department of Science and Innovation.

### **Coordination and control mechanisms:**

- Regular meetings and strategic sessions;
- Development and monitoring of roadmaps and key performance indicators (KPIs);
- External reporting and auditing system for Strategy implementation.

**Collaboration with external partners:**

- Educational platforms (e.g., Coursera);
- Partner universities and research centers;
- IT companies (Google, Microsoft, Yandex, Huawei, Kaspersky, etc.);
- Expert communities and professional associations.

**3. Performance evaluation and development prospects****Key performance indicators (KPIs):**

- Share of academic programs incorporating AI-related disciplines (%);
- Number of faculty members trained in AI;
- Number of implemented AI projects and startups;
- Level of student participation in AI competitions and hackathons;
- Indicators of ethical and safe use of AI.

**Monitoring and adaptation:**

- Annual review and adjustment of planned activities;
- Assessment of implementation effectiveness based on faculty and student feedback;
- Integration of emerging technological trends and compliance with regulatory requirements.

**Prospects:**

- Expansion of research and innovation activities;
- Strengthening the University's competitiveness in the region;
- Participation in national and international AI initiatives and projects.

**4. Risk assessment and challenges****Key risks:**

- Insufficient qualification of faculty and IT specialists;
- Limited funding for AI projects;
- Rapid obsolescence of technologies;
- Ethical and legal uncertainties.

**Risk management measures:**

- Comprehensive faculty development and training programs;
- Partnerships with IT companies for technology transfer and knowledge exchange;
- Regular technological audits and platform updates;
- Establishment of a dedicated working group on ethics and law in AI;
- Active collaboration with government authorities on AI regulatory frameworks.

**Conclusion**

The integration of artificial intelligence represents not merely a technological upgrade, but a profound transformation of the educational model.



The implementation of this Strategy will enable JSC “Mukhamedzhan Tynyshbayev ALT University” to secure sustainable leadership in the field of digital education, foster an innovative environment for training highly demanded specialists, and unlock new opportunities for scientific and social development.

Reviewed and approved at the meeting of the Academic Council of JSC “Mukhamedzhan Tynyshpayev ALT University,” Protocol No. 11-1 dated August 04, 2025.

**President-Rector**



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