

**Taraz University named after M.Kh.Dulaty**



**APPROVED**

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**METHODOLOGICAL GUIDELINES FOR INTEGRATING  
THE PRINCIPLES OF SUSTAINABLE DEVELOPMENT  
INTO THE EDUCATIONAL PROGRAMS OF DULATY UNIVERSITY**

**TARAZ, 2024**

## **Introduction**

Modern higher education plays a key role in developing competencies necessary for building a sustainable future. In this regard, Dulaty University actively supports the integration of sustainable development (SD) principles into the educational process, scientific research, and extracurricular activities. These methodological guidelines are designed to assist instructors in the practical implementation of these principles within academic disciplines, project assignments, and interdisciplinary collaboration.

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## **1. General Principles**

### **1.1. Sustainable Development as a Cross-Cutting Theme**

Sustainable development principles should be integrated not only into specific disciplines (such as ecology or economics) but also into humanities, technical, and management education. It is important to develop an interdisciplinary understanding of sustainability.

### **1.2. Formation of Values and Competencies**

Teaching should aim not only at transferring knowledge but also at developing:

- critical thinking;
- a systems approach;
- values of social and environmental responsibility;
- skills for sustainable choices and actions.

### **1.3. Diverse Forms of Integration**

Integration can be direct (entire courses, modules on SD) or indirect (case studies, assignments, contextual mentions within disciplines). Sustainable development principles can be connected to management, logistics, architecture, engineering, healthcare, pedagogy, and more.

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## **2. Recommended Forms of Integration**

### **2.1. Academic Integration:**

- Introduction of modules dedicated to the Sustainable Development Goals (SDGs) in core and elective courses;
- Creation of standalone courses such as “*Fundamentals of Sustainable Development*”, “*Ecological Thinking*”, “*Corporate Social Responsibility*”;
- Updating course content with a focus on sustainable practices (e.g., green technologies in construction, ESG analysis in economics).



## **2.2. Methodological Integration:**

- Use of case studies and project assignments addressing real-world problems: waste management, sustainable transport, access to education;
- Application of problem-oriented approaches — students working on current challenges (e.g., how to reduce the university's carbon footprint);
- Conducting discussions and debates that model sustainable development scenarios for society or specific industries.

## **2.3. Extracurricular Integration:**

- Organizing SDG hackathons, competitions, exhibitions, and events focused on sustainable development;
- Supporting student research and initiatives on sustainability topics;
- Integrating sustainability topics into practicums, internships, and thesis projects.

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## **3. Support for Faculty**

### **3.1. Professional Development:**

- Conducting internal training sessions, seminars, and webinars on Education for Sustainable Development (ESD);
- Including ESD modules in faculty development programs.

### **3.2. Access to Resources:**

- Creation of a digital library of methodological materials, assignment templates, case studies, and textbooks;
- Providing access to international platforms (UNESCO, SDSN, UNAI, etc.) with educational resources.

### **3.3. Advisory Support:**

- Opportunity to consult the University's Center for Sustainable Development for methodological and content support;
- Internal mentorship — experienced faculty sharing their practices of integrating SD into their courses.

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## **4. Example Topics for Inclusion in Educational Programs**

- Carbon footprint and climate change
- Circular economy and resource efficiency

- Green technologies and sustainable innovations
  - Global environmental and social challenges
  - Energy efficiency and renewable resources
  - Sustainable natural resource management
  - Gender equality and inclusive society
  - Sustainable urban planning and transport
  - Social entrepreneurship and ESG approaches
  - Education as a driver of sustainable development
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## **5. Monitoring and Evaluation of Integration**

### **5.1. Assessment of Student Knowledge and Competencies:**

- Conducting tests, reflective essays, mini-projects, and surveys on sustainability topics;
- Introducing elements of self-assessment and peer review.

### **5.2. Analysis of Curricula and Reporting:**

- Including sustainable development topics in course syllabi;
- Annual analysis of SDG-related content integration in departmental reports.

### **5.3. Feedback Mechanisms:**

- Gathering student feedback on the perception and value of sustainability topics;
  - Discussing integration during methodological council meetings.
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## **Conclusion**

Integrating sustainable development into education is not a one-time initiative but a strategic step toward preparing a new generation of professionals capable of making decisions that consider environmental, economic, and social factors. These guidelines are intended to serve as a practical tool for the faculty of Dulaty University and as a foundation for creating a sustainable educational environment.