

Education for Sustainable Development: Specialized Courses on Sustainability



In our rapidly changing world, addressing global challenges such as climate change, environmental degradation, and social inequality is essential. **Education for Sustainable Development (ESD)** plays a crucial role in empowering learners to take informed decisions and act responsibly for environmental integrity, economic viability, and a just society, both for present and future generations.

The **Education for Sustainable Development: Specific Courses on Sustainability** program at **Tashkent State University of Economics** aims to equip students with the knowledge, skills, values, and attitudes necessary to contribute to sustainable development. By integrating sustainability principles into the curriculum, we prepare learners to become sustainability change-makers.

Business management (Sustainable business)

In constant evolution, businesses face critical global challenges such as climate change, environmental degradation, and social inequality. The need for sustainable practices has never been more urgent. The Business Management (Sustainable Business) program addresses these challenges head-on, equipping students with the knowledge and skills necessary to create positive impact.

№	Name of subjects	Subject content
1.	Environmental and Natural Resource Economics	<p>This course is part of the subject "Environmental and natural resource economics" and is scheduled for the third semester of the second year. The main purpose of teaching science is to study the knowledge and rules in the theoretical and practical field on the formation of economic knowledge on environmental protection and efficient use of natural resources, efficient and rational use of natural resources. Understanding the content of the course is important for making decisions on environmental protection and use of natural resources, understanding the essence of environmental policy and in-depth study of the mechanisms of use of natural resources. Environmental and natural resource economics, as well as global climate change, problems of inefficient use of natural resources, air and water pollution, drought and irrational use of land resources, disturbance of environmental justice and balance, problems in forests, agriculture and fisheries, external and internal impact factors, use of ecosystem resources, factors influencing the development of ecotourism, environmental protection and use of natural resources benefits and costs. The main attention is paid to the issues of the people.</p>
2.	Green economy	<p>Important issues of the science of "green economy" are explained based on interactive and modern pedagogical methods of teaching. Analysis of the formation of the "green economy" concept, stages of development, necessity, factors, principles and indicators of the transition to the "green economy" is given. Financing the process of transition to "green economy", sustainable development of "green energy", environmental policy and the economic mechanism of its implementation, priority directions and foreign experience and models of transition to "green economy", the purpose of the strategy of transition to "green economy" in Uzbekistan, the contents of tasks, stages of development and priorities are described. From the rich, advanced experience of ensuring "green growth" in world practice, opportunities for economic application in the implementation of the strategy of transition to "green economy" in Uzbekistan are taught.</p>
3.	Green energy	<p>Green energy is part of the energy producing system that uses renewable energy sources. For now in the world, about 1% of electricity is produced by photovoltaic panels and slightly more than 2% by windmills. The total capacity of the solar energy and wind use is doubled for every four years. In Europe, the trend of the new energy industry is already downward. China plans by 2040 to actually produce «green» energy for 250 Gigawatts. In the US, there are plans by the end of the century to get 65% of the electricity from the photoenergy conversion. In Russia, the proportion of «green» energy accounts for about 2%.</p>

According to the plan of the Government of the Uzbekistan, by 2030 this indicator should increase to 25%.

4. Ecological management

Ecological management is one of the rapidly developing areas of the modern science system, which is aimed at finding an optimal solution to current ecological scientific and practical tasks. In it, students are directed to correctly understand the complex and rapidly changing features of economic-ecological life management in the conditions of globalization, to teach the analysis of various information in this field, to introduce them to the current scientific and practical level of environmental management.
5. Sustainable economic development

The instability of the current development trends in the world, the turbulence of the world economy, the increasing imbalance of economic, social and environmental trends make it necessary to form new economic models. Such formation should take place within the framework of the sustainable development paradigm, which has become central to humanity in the 21st century. This situation was reflected in the decisions of three UN conferences, supported by all countries, including Uzbekistan.

The sooner humanity realizes this and follows the path of sustainable development, the more likely its survival on Earth will be.

In this case, the decisive role belongs to economic-ecological education, the content and essence of which is the process of forming an economic-ecological worldview in an individual, the basis of which is the discipline “Economics of Sustainable Development”.

The main goal of the discipline is to deepen the knowledge of bachelors on issues of sustainable development, which constitute one of the main components of the professional cycle.
6. Sustainable business innovation

This chapter provides a brief outline of the subject and the book’s content. The terms sustainability and innovation should not be considered separately, not only when talking about sustainable innovation. They are closely linked to one another. The main goal of sustainable innovations is to develop new products and technologies that have a positive impact on the company’s triple-bottom line. Thus, they have to be ecologically and economically beneficial as well as socially balanced.
7. Sustainable business strategy

This course examines the enterprise's sustainable development strategy as part of the company's business strategy. Today, companies face increasing pressure from consumers, governments to play a positive and proactive role in protecting people and the planet. Sustainability is becoming a key part of overall business strategy, and some players now publish integrated annual reports that combine environmental, social and financial data. This course is devoted to the formation of an organization's strategy.

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well as the main mistakes that a company can make when developing a strategy.

Economy ("Green" economy)

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3.	Ecological culture	When implementing standards in the general educational process, one of the tasks is to introduce an environmental component into educational subjects at all levels of the educational process, the formation and development of students' environmental culture. The content of the course meets the current requirements of the professional standard of a teacher. The first section provides theoretical concepts and definitions available in the scientific literature, characteristics of the characteristics of environmental consciousness and thinking, technologies and methods

for the formation of environmental culture in an educational institution. The second section presents general ecology topics.

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7. Energy Economics

The course materials discuss the problems of energy development in the context of the transition to a competitive market, the basics of structural reform of the electric power industry and its main directions. The following sections of the discipline “Energy Economics” are being implemented: production assets in the energy sector; personnel and remuneration; calculation of the cost of production and transmission of electricity; pricing; methods for setting energy tariffs.

Traditional methods of comparative and general economic assessment of investment efficiency are disclosed. Modern approaches to assessing the effectiveness of technical solutions related to the restructuring of enterprises in the fuel and energy complexes are given.

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8. **Global climate change** Everyone is talking about global climate change today. Each of us anticipates some kind of threat hidden in this process for the environment and human civilization as a whole. To what extent do our everyday ideas about climate change correspond to accumulated scientific data? What do scientists mean by “global climate change”? What consequences does this process entail and how can they affect our existence? What factors actually influence climate? This course offers a wide audience a brief and publicly accessible overview of modern climate science and talks about possible ways to solve the climate problem.
9. **Sustainable business management** In an age that not only values but expects environmental consciousness, businesses are increasingly forced to incorporate sustainable practices into their core strategies. This is where sustainable business strategy consulting firms such as the Environmental Certification Institute play an important role. With a deep understanding of market trends and environmental management, such advice helps companies navigate the complexities of sustainability.
The role of an eco-certification institute in sustainable business strategy consulting is crucial, facilitating a transformational process that goes beyond mere compliance to embed sustainability at the core of corporate culture. Their specialized services not only elevate clients in terms of environmental reliability, but also pave the way for innovation and sustainability in an ever-evolving global landscape.

Master's degree

10. **Environmental audit** The discipline is focused on the study of basic patterns and trends formation and development of the procedure for environmental audit of technologies, production and territories in order to ensure sustainable development, allows us to develop a scientific approach to the study of complex multifactorial, interdisciplinary and intersectoral problems rational use, reproduction of natural resources and environmental protection environment, as well as master the principles, methods and techniques of management in this area.
11. **Environmental Monitoring** This course is intended to be used as material on “Environmental Monitoring”. To fully master the educational material for this course, students must have solid knowledge of ecology, chemistry, physics, biology, soil science, etc. Using the knowledge of this course in the educational process will allow students to develop theoretical and practical knowledge that will provide the necessary basis for correct assessment of the scale and forecast of impact consequences human activities on the environment, timely detection

trends in its changes, planning and implementation of necessary environmental protection measures.

12. Business and climate change What is certain is that climate change will impact every business to a greater or lesser extent. Losses may arise as a direct cause of extreme weather events such as hurricanes, droughts or floods, or indirectly due to a higher risk of default due to economic and social shocks, the risk of litigation, lower incomes and a decline in economic growth - even if investments. Climate risks affect all sectors of the economy, but the level and type of exposure varies depending on geography, sector, industry and a company's assets and/or loan portfolio.
13. Industrial ecology Issues of environmental protection and rational use of natural resources are currently so important that in almost any area of production activity there is a need for specialists in this profile.
Industrial ecology is a modern and rapidly developing direction in science and technology. New methods for cleaning industrial waste are being developed, technological schemes of existing production facilities are being reconstructed, and new environmental and resource-saving solutions are being proposed.
In recent years, foreign companies have been actively introducing themselves into the industry. They use modern technologies developed by the world's leading manufacturers. Students should know the principles of constructing such technologies and be able to evaluate their advantages and disadvantages.
14. Environmental risk management Environmental risk management is a purposeful action aimed at choosing the optimal enterprise strategy to minimize environmental damage. Environmental risks are managed within the framework of the environmental management system (EMS).
15. “Green” investments. General green investment criteria and approaches can be integrated into the overall investment process and applied both to a specific product/commodity and to all underlying assets. In the case of general green investments, the responsibility and sustainability criteria are applied on the basis of the assessment of underlying practices and guidelines, rather than a specific product/commodity. Usually one or more approaches are used: marginalization, screening for compliance with certain norms, integration of the principles of sustainable development and CSR (corporate social responsibility).