

Osh State University «Green economy»

Name of Study Programme 520 200 Biology	
Name of Module: Green economy	
Module number	Block No. 1, Group A, Elective Part
Person responsible	Eliza Zhunusalieva, doctoral student
Duration of the module	1 spring semester
Semester	II semester
Frequency of the module	2nd academic semester
ECTS-Credits (CP)	2 credits
Semester hours per week, number of weeks	2 hours per week (14 weeks)
Workload	60 hours (1 credit 30 hours) Contact hours (Classroom hours): 24 hours Independent work: 36 hours
Type of module	Block No. 1, Group C Elective Part
Required prerequisites for the module	Relevance of the Course In the context of a growing ecological crisis and global challenges of sustainable development, the course 'Green Economy' acquires strategic importance. It aims to develop in students a systemic understanding of the transition to environmentally sustainable, resource-saving, and socially equitable models of economic activity. The green economy contributes to reducing the negative impact on the environment, creating 'green' jobs, and integrating environmental principles into economic policy. Mastering this course is especially important for training specialists capable of developing and implementing effective solutions in the context of climate change and depletion of natural resources. Course Aim To develop in students an understanding of the principles of green economy and sustainable development, as well as skills for analyzing and applying environmentally oriented economic solutions in their professional activities. Course Objectives • Introduce students to the fundamentals of ecology, sustainable development, and the green economy • Analyze the ecological challenges of Kyrgyzstan and the world, as well as ways to address them • Develop ecological thinking and an ethical attitude towards nature • Emphasize the role of national traditions in the context of sustainable development • Form a scientific understanding of the interaction between humans and the environment in the context of urbanization • Promote the development of ecological competence for future professional activities
Recommended prior knowledge for the module	Since this discipline is taught in the first year, the fundamental natural science concepts learned in the school curriculum (in biology, geography, social studies) are a sufficient basis for its mastery.

Teaching language	Kyrgyz, Russian, later also in English
Competencies gained / Learning outcome	Learning Outcomes The student acquires a holistic understanding of the principles of green economy and sustainable development, as well as develops skills for environmentally oriented thinking and decision-making in the professional field. Competencies Social and Personal Competence (SPC 1): Demonstrates civic responsibility towards environmental issues, shows ethical and sustainable behavior oriented towards a healthy lifestyle and a respectful attitude to nature. Instrumental Competence (IC 1): Is able to apply appropriate methods and tools for collecting environmental information, its systematic analysis, and the assessment of ecological conditions. General Professional Competence (GPC 1): Has knowledge of the basic concepts in natural and social sciences related to ecology and sustainable development and is able to apply them to environmental analysis. Professional Competence (PC 1): Formed depending on the training profile and the specifics of the specialty.
Content of the module	Introduction, the concept of green economy of the Kyrgyz Republic. Content, subject, and tasks of the green economy. Socio-economic situation in Kyrgyzstan. Current state of the environment and health of citizens of Kyrgyzstan. Concept of the Green Economy. Global initiatives for the development of Green Economy. Development of Green Economy in Kyrgyzstan. The concept of green economy in the Kyrgyz Republic. Green Energy and Climate Change Energy Resources of the Earth. Energy Sector of Kyrgyzstan. Paths to Sustainable Energy. Low Carbon Footprint in Energy. Green Cities and Green Transport Low Carbon and Renewable Energy. Types of Energy. Paths to Sustainable Energy Green production General information about green production. Environmental management. Environmental safety in production. Environmental audit. Green production technologies Green industry and circular economy Green industry and natural resources of Kyrgyzstan. Circular economy. Waste recycling: waste-free and low-waste technology. Industrial safety, introduction of green technologies in industry. Environmental impact assessment. Biodiversity and Biosafety Biological diversity of the Kyrgyz Republic. Biological safety. Biological methods of combating biodegrading species of animals and plants. National strategy for the conservation of biodiversity. Specially protected natural areas and the Red Book of the Kyrgyz Republic. Principles of environmental, social and corporate governance (ESG). ESG principles. Implementation of environmental and social management principles for manufacturing companies. Principles of corporate governance. Concept, forms, functions and methods of environmental management. State environmental management

Applicability of the module Применимость модуля	Corresponding educational programs: 520200 Biology. 550100 Natural Science Education. Offered for all areas of training.
Requirements for the award of credit points (Study and exam requirements)	Course Policy 1. Attendance and Participation - Students are required to attend all lectures and practical (seminar) sessions. - Proper behavior and discipline must be maintained during classes, as established by the instructor. - Absences without a valid reason may result in a lower final grade. - Careful note-taking, theoretical preparation for each lesson, active participation, and timely completion of missed assignments are separately evaluated. - Late arrivals are discouraged; repeated lateness may lead to penalties at the instructor's discretion. 2. Academic Integrity and Plagiarism Plagiarism and academic dishonesty include copying someone else's work, cheating, and presenting another's material as one's own. - Any cases of plagiarism or dishonesty on exams or assignments will result in grade penalties or other measures according to university regulations. 3. Deadlines and Late Submission Penalties - All homework, projects, and other assignments must be submitted by the specified deadlines. - Late submissions will incur point deductions. - Arriving late to class or leaving without a valid reason affects participation evaluation. 4. Retake and Appeal Policy - Retake of exams and assessments follows the procedure established by the instructor. - Grade appeals must be submitted in writing within the timeframe set by the instructor. 5. Use of Gadgets in Class - The use of phones, laptops, and other devices during lectures is allowed only with instructor approval or for learning purposes. 6. Formatting and Citation Rules - All written work must comply with university formatting requirements. - Proper citation and a complete list of references are mandatory. 7. Consultations and Office Hours - Consultation schedules and office hours are set for individual consultations and guidance on independent student work (ISR). - More details: Consultation Schedule 8. Academic Integrity Declaration - All students must sign a declaration confirming compliance with the university's academic integrity policy. - Regulation: "Organization of the Educational Process at OshSU" A-2024-0001, 03.01.2024 Course Grading System (100 points) Module 1 – 25 points - Lecture: 4 points - Practical (seminar) session: 6 points - Independent student work (ISR): 6 points - Practical independent work (PIR): 4 points

	- Control work (CW): 5 points Module 2 – 25 points - Lecture: 4 points - Practical (seminar) session: 6 points - Independent student work (ISR): 6 points - Practical independent work (PIR): 4 points - Control work (CW): 5 points Final Exam – 50 points
Learning and teaching types	Forms of Instruction - Lectures - Seminars - Independent student work (ISR, PIR) Assessment Methods Ongoing assessment: tests, essays, reports Final exam Teaching Methods Lectures using multimedia technologies. Practical sessions in the form of case studies, situation analysis, and project development. Independent student work (ISR, PIR): preparation of essays, presentations, reports, and the final project. Forms of Assessment Ongoing assessment: evaluation of practical sessions, tests, essays. Intermediate assessment: defense of presentations, case studies, and reports. Final assessment: development and defense of an environmental program project.
Literature (latest editions) and other instruction material	Electronic Textbooks - Development of Ecotourism in the Kyrgyz Republic and Its Significance in the Transition to a Green Economy Link - Environmental Culture and Ways of Its Formation Link - Prospects of Green Tourism in Kyrgyzstan: Waste Management as a Key Issue Link Legal and Regulatory Acts - Collection of Legal and Regulatory Acts of the Kyrgyz Republic in the Field of Environmental Protection. Volume 2 “Bylaws and Instructional-Methodological Documentation”, Part 1 Dj.E. Bekkulova, Zh.A. Kadoeva, A.Sh. Djailoobaev, V.V. Grebnev, A.K. Nurbekov – Bishkek, 2016. – 536 pages. - Collection of Legal and Regulatory Acts of the Kyrgyz Republic in the Field of Environmental Protection. Volume 2 “Bylaws and Instructional-Methodological Documentation”, Part 2 Dj.E. Bekkulova, Zh.A. Kadoeva, A.Sh. Djailoobaev, V.V. Grebnev, A.K. Nurbekov – Bishkek, 2016. – 542 pages. - Environmental Code of the Kyrgyz Republic Textbooks - Kulnazarov B.K. General Ecology – Moscow, 2000. – 352 pages. - Mansurova T.B. Ecology of Kyrgyzstan: For University Students, Public Fund “Phoenix South” – Bishkek, 2000. – 190 pages.

	3. Mursaliev A.M. General Ecology: A Textbook for Students of Natural Science and Humanities Faculties of Higher Education Institutions of the Kyrgyz Republic
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