



MINGACHEVIR
STATE
UNIVERSITY



CLIMATE SCIENCE AND ENVIRONMENTAL SUSTAINABILITY COURSES

CURRENT STATUS AND ANALYSIS

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In the modern era, climate change and environmental protection have become some of the most pressing global challenges. In this context, the role of higher education institutions is particularly important. Universities are not only institutions for knowledge dissemination but also key actors in promoting sustainable development.

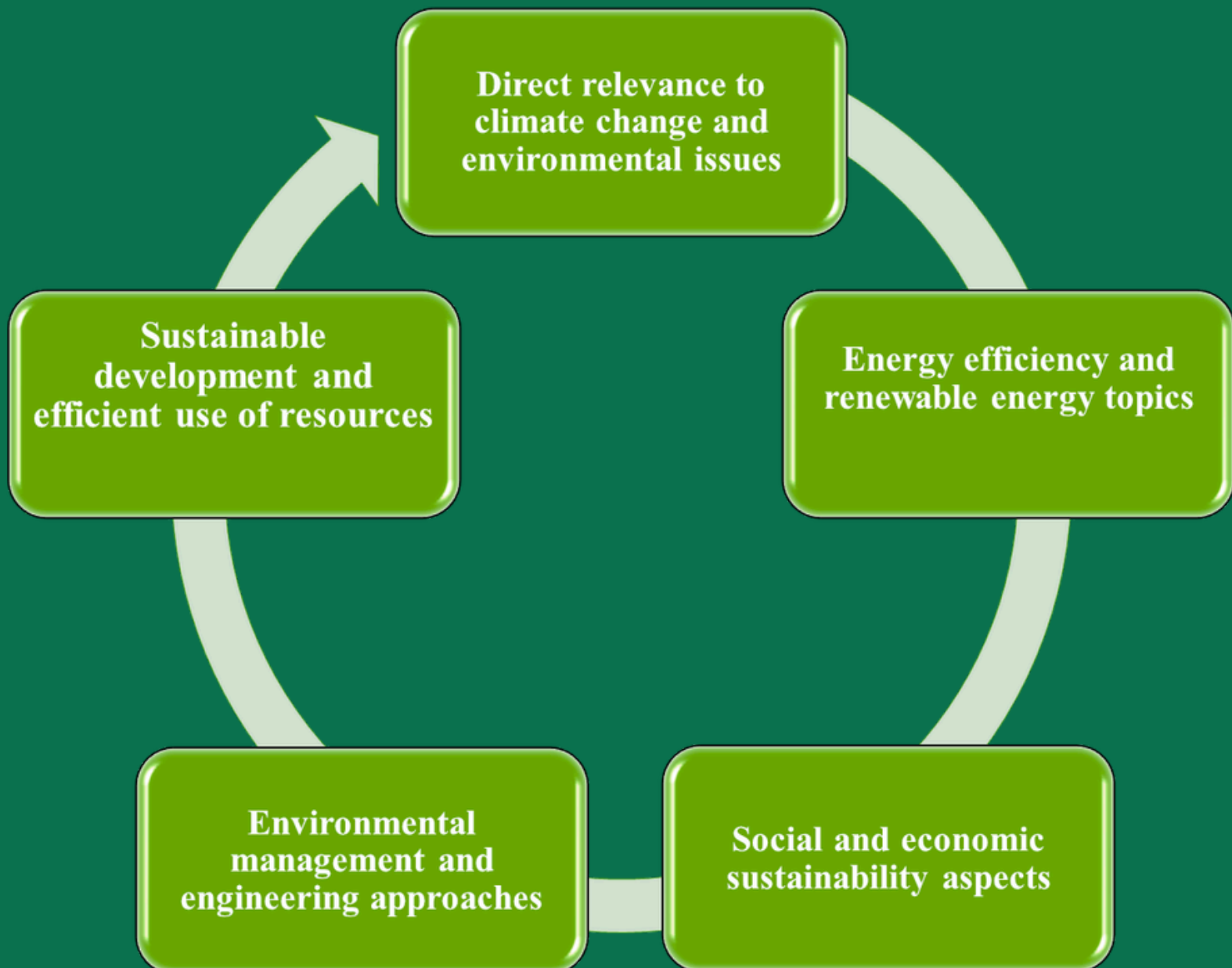
Mingachevir State University has been taking important steps in this direction by developing its academic programs, aligning them with contemporary challenges, and enhancing students' environmental responsibility. The main purpose of this document is to analyze the current state of courses related to climate science and environmental sustainability at the university, evaluate their structure, and identify future development directions.

Courses that directly or partially cover the field of climate science and environmental sustainability are included in the following programs at Mingachevir State University:

1. ***Ecology***
2. ***Environmental Engineering***
3. ***Energy Engineering***
4. ***Industrial Engineering***
5. ***Life Safety***
6. ***Transport Engineering***
7. ***Tourism Management***

Methodology

During the analysis process, curricula, course catalogs, and program descriptions across various faculties of the university were reviewed. The selection of courses was based on the following criteria:



Courses directly related to environmental sustainability / climate change (strong relevance)

Ecological Sustainability and Child Personality Development	Application of Information Technologies in Ecology
Ecological Education of Preschool-Aged Children	Use of Alternative Energy
Sustainable Tourism	Fundamentals of environmental impact assessment and design
Ecological Tourism	Emergencies and the Environment
Green Economy	Radioecology
Green Finance	Environmental Engineering
Sustainable Economy	Household Ecology
Tourism and Climate Change	Biosphere Ecology
Mechanisms of State Regulation of Sustainable Development	Atmosphere and modern climate change
Community-Based Tourism	Social Ecology
Renewable Energy Sources and Systems	Fundamentals of Environmental Protection
Design and Calculation of Solar Energy Systems	Environmental Monitoring
Design and Calculation of Wind Energy Systems	Environmental Systems Modeling
Energy-Efficient Technologies	Environmental Research Methods
Environmental Cartography and Geographic Information Systems	Environmental Impact Assessment

Courses directly related to environmental sustainability / climate change (strong relevance)

Applied Ecology	Water Resources and Protection
Environmental Management	Industrial Ecology
Urban Ecology	Sustainable Natural Resource Management
Global Ecology	Biodiversity Conservation
Microbial Ecology	Waste Management and Recycling
Air and Water Quality and Pollution	Agroecology
Hydrology	General Ecology
Human Ecology and Sustainable Development	Wastewater Treatment
Alternative Energy Sources	Ecotoxicology
Climate Change and Global Warming	Environmental Law
Landscape Ecology	Environmental Chemistry
Biosphere Conservation	Green Chemistry
Ecosystem Services	Climate Change
Geographical Ecology	Environmental Safety
Soil Ecology	Environmental Forecasting

Courses indirectly related to environmental sustainability / climate change (partial relevance)

Modern Concepts of Natural Sciences	Strategic Directions of State Economic Policy
Contemporary Social Issues	Development Economics
Socio-Political Issues of Sustainable Development	Economics of Social Sectors
Integration of Eco-Consciousness into Teaching Methodology	Innovation Economics
Integration of Eco-Consciousness in Preschool Education	Risk Management
Methodology of Familiarization with the Environment	Business Analytics and Risk Management
Socio-Economic Geography of Azerbaijan	Energy Production Technologies
Geography of Azerbaijan	Fundamentals of Energy Systems
Tourism Geography	Electric Power Generation, Transmission and Distribution
Regional Tourism Geography	Health, Occupational Safety and Environmental Protection
International Tourism Geography	Risk Analysis and Management
Tourism Resources of Azerbaijan	Technogenic Hazards and Protection
Economics of Natural Resources	Natural Hazards and Their Management
Regional Socio-Economic Development	Radiation Safety
Agricultural Economics	Monitoring and Forecasting of Emergencies
Industrial Economics	Damage Assessment in Emergencies
Economic Policy	Industrial Safety
Public Finance	Occupational Health and Safety
Fiscal Regulation of the National Economy	