NAVOI STATE UNIVERSITY

ATMQYR ENVIRONMENTAL PROTECTION & GREEN DEVELOPMENT — COURSE SYLLABUS

Faculty of Natural Sciences & Medicine | Program: 60410200 Accounting & Audit (Evening & Distance)

COURSE PASSPORT & ACADEMIC METADATA

Course Title: Environmental Protection and Green Development

Course Code: ATMQYR

Course Type: Elective

Field of Study: 400000 Business, Management & Law

Field: 410000 Business & Management

Program: 60410200 Accounting & Audit

Form of Education: Evening & Distance

Academic Year: 2026–2027

Semester: IV

Total Workload: 150 Hours (60 Contact, 90 Independent Study)

Credits: 5 ECTS

Aligned UN SDGs: SDG 12 (Responsible Consumption & Production), SDG 13 (Climate Action), SDG 9 (Industry & Innovation)



1. Course Description & Environmental Accounting Focus

This specialized syllabus integrates environmental protection and green growth principles with corporate environmental accounting, carbon footprint audits, natural resource asset valuation, environmental liability tracking, and green financial reporting.

In alignment with SDG 12 and 13, the course prepares future accountants and auditors to quantify environmental liabilities, analyze eco-efficiency metrics, assess ESG investment risk, and ensure compliance with international sustainability reporting standards.

2. Course Aims & Accounting Competencies

Course Aim: To equip accounting and auditing professionals with environmental literacy, eco-auditing skills, carbon tax accounting, and green development project evaluation.

- Financial & Eco-Audit Competency: Quantify corporate environmental impact costs, natural resource consumption, waste management expenses, and green tax incentives.
- Regulatory & ESG Knowledge: Understand environmental protection statutes (PF-5863, PQ-4477) and international ESG accounting standards.
- Analytical & Audit Skills: Perform environmental audits, waste recycling cost-benefit analyses, and energy efficiency audit evaluations.
- SDG Competencies: Champion transparent corporate sustainability reporting and environmental risk management (SDG 12).

3. Prerequisites

Prerequisites: Economic Theory, Financial Accounting, Fundamentals of Ecology.

4. Course Structure & Workload Allocation

Activity Type	Curriculum Focus	Workload Allocation
Lectures	Green Transition & Eco-Accounting Theory	30 Hours
Seminars	Corporate ESG & Environmental Audits	30 Hours
Independent Study	Eco-Audits, Financial Reports & Projects	90 Hours
Total Workload	Full Accounting Elective Module	150 Hours (5 ECTS)

5. Detailed Course Curriculum Outline

5.1 Lecture Syllabus Outline

• **L1: Introduction to Environmental Protection & Green Growth:** Subject matter, objectives, theoretical frameworks of environmental security, and human impacts on ecosystems.

• **L2: Ecological Systems & Biosphere Mechanics:** Biosphere composition, ecosystem structure and function, ecological balance, and anthropogenic pressure.

• **L3: Rational Use of Natural Resources:** Classification of natural resources, resource depletion challenges, eco-efficiency, and circular principles.

• **L4: Atmospheric Air Protection:** Sources of air pollution, key gaseous/particulate pollutants, public health impacts, and abatement technologies.

• **L5: Water Resource Management & Protection:** Ecological significance of water, scarcity, industrial/municipal wastewater treatment, and conservation technologies.

• **L6: Soil & Land Resource Protection:** Soil degradation, wind/water erosion, salinization, desertification, and reclamation/recultivation methods.

• **L7: Biodiversity Conservation & Ecosystem Services:** Ecological value of biodiversity, protected natural areas (PAs), endangered species, and Red Book management.

• **L8: Solid Waste Management & Circular Economy:** Waste typologies, environmental risks, source separation, recycling, zero-waste technologies, and circular economy.

• **L9: Climate Change & Global Environmental Consequences:** Drivers of global warming, greenhouse gas emissions, mitigation protocols, and socio-economic adaptation strategies.

• **L10: Green Economy: Concepts & Core Principles:** Low-carbon development pathways, eco-innovations, resource efficiency, and green transition frameworks.

• **L11: Green Energy & Renewable Energy Technologies:** Solar, wind, hydro, and biomass energy systems; integration into national energy grids.

• **L12: Green Building & Energy Efficiency:** Energy-efficient architectural design, eco-certified building materials, and green building standards.

• **L13: Sustainable Cities & Green Infrastructure:** Urbanization dynamics, eco-transportation, urban forestry, green infrastructure, and smart cities.

• **L14: Environmental Challenges & Green Transition in Uzbekistan:** Aral Sea disaster, water security, desertification, industrial waste, and Uzbekistan's national green strategies.

• **L15: Sustainable Development Goals (SDGs) & Future Horizons:** Integration of UN SDGs, green technology forecasting, environmental policy, and sustainable future pathways.

5.2 Seminar & Practical Discussion Outline

- Concepts of Environmental Protection and Ecological Security
- Global Environmental Issues and Risk Analysis
- Climate Change Drivers and Socio-Economic Consequences
- Fundamentals and Frameworks of the Green Economy
- Sustainable Development Goals (SDGs) and UN Agenda 2030
- Rational Management and Efficiency of Natural Resources
- Water Security, Scarcity, and Conservation Technologies
- Waste Management, Recycling, and Circular Economy Models
- Atmospheric Air Quality Control and Emission Reduction
- Biodiversity Preservation and Protected Natural Areas
- Renewable Energy Systems and Energy Efficiency Transitions
- Sustainable Urban Planning and Green Infrastructure
- Environmental Policy, Legislation, and Legal Mechanisms

- Uzbekistan's Green Growth Strategy and Ecological Priorities
- Applied Project: Designing a Regional Green Development Strategy

5.3 Independent Study & Analytical Projects

- Climate Change & Ecological Consequences: Compiling analytical analytical reports and risk matrices (10 hrs).
- Core Principles of Green Economy: Preparing strategic policy briefings and case studies (10 hrs).
- Renewable Energy Horizons & Waste Recycling in Uzbekistan: Writing scientific articles and conference abstracts (10 hrs).
- Rational Use of Water & Aquatic Adaptation: Researching aquatic ecosystem dynamics and water conservation (10 hrs).
- Urban Environmental Challenges: Conducting urban eco-audits and formulating 25 diagnostic test items (10 hrs).
- Green Campus Concept: Writing a research proposal for sustainable university infrastructure (10 hrs).
- Biodiversity Preservation: Preparing analytical essays on rare species and habitat protection (15 hrs).
- Environmental Education & SDG Culture: Developing multimedia presentations and educational animations on SDGs (15 hrs).

6. Recommended Literature & Information Sources

- Butaboyev M.T., Maxmudov N., Kasimov A.A. Green Economy. Tashkent: Innovatsion Rivojlanish, 2025.
- Jobborov B.T., Xalillayev Sh.A. Climate Change and Ecological Adaptation. Tashkent: Book Trade Ko, 2022.
- Muftaydinov Q.X., Qodirov H.M., Yulchiyev E.Yu. Ecology. Tashkent, 2020.
- Xashimova S.N. Green Economy. Tashkent: Ma'rifat, 2024.
- Xodjimatov A.N. et al. Ecology and Nature Protection. Tashkent, 2020.
- Law of the Republic of Uzbekistan 'On Nature Protection' (1992).
- Law of the Republic of Uzbekistan 'On Atmospheric Air Protection' (1996).
- Presidential Resolution PQ-4477 'Strategy for Transition to a Green Economy' (2019).
- Presidential Decree PF-158 'Uzbekistan — 2030 Strategy' (2023).