NAVOI STATE UNIVERSITY

BETT2404 FUNDAMENTALS OF SUSTAINABLE DEVELOPMENT — COURSE SYLLABUS

Faculty of Natural Sciences and Medicine | Department of Biology | Full-Time Education Program

COURSE PASSPORT & ACADEMIC METADATA

Course Title:	Course Code:
Sustainable Development Goals	BETT2404
Course Type:	**Field of Study:**
Mandatory (Compulsory)	500000 Natural Sciences, Math & Statistics / 520000 Environment
Programme:	**Academic Year:**
60520200 Ecology and Environmental Protection	2026–2027
Semester:	**Form of Education:**
4	Full-time; Uzbek
ECTS Credits:	**Total Workload:**
4 ECTS Credits	120 Hours (60 Contact Hours, 60 Independent Study Hours)
Curriculum Reference:	**Weekly Contact Hours:**
60520200-2.4	4 Hours
Assessment:	**Aligned UN SDGs:**
Final Written Examination	SDG 4 (Quality Education); SDG 12 (Responsible Consumption); SDG 13 (Climate Action); SDG 17 (Partnerships for the Goals)



1. Course Description & Scope

The course 'Fundamentals of Sustainable Development' (BETT2404) explores the theoretical, ecological, economic, and social pillars of sustainable development. It examines UNEP and UNESCO frameworks, international Rio declarations, the UN 2030 Agenda for Sustainable Development (17 SDGs), green economy transition, climate change mitigation, environmental legislation, and Education for Sustainable Development (ESD).

2. Course Aims & Professional Competencies

Course Aim: To foster deep scientific understanding of global sustainability challenges and develop practical competence in green economy modeling, environmental policy analysis, and ESD project designing.

Professional Competencies:

• Knowledge: Understanding the triple bottom line of sustainability (ecological balance, economic efficiency, social equity), UN 2030 Agenda (17 SDGs), UNEP strategies, and international environmental law.
• Analytical Skills: Assessing environmental degradation metrics, PISA/TIMSS ESD indicators, green finance mechanisms, and eco-footprints.
• Policy & Project Development: Designing eco-educational programs, green economy transition models, and climate change adaptation plans.
• Global Governance & Ethics: Fostering ecological culture, eco-consciousness, and global partnership for sustainable development.

3. Prerequisites

• Fundamentals of Ecology, Social Ecology, Economic Theory, Environmental Economics, and Pedagogy/Psychology.

4. Course Learning Outcomes (CLO)

Code	Learning Outcome Description
CLO 1	Explain historical evolution, core concepts, international conventions (Rio, Kyoto, Paris), and UN Sustainable Development Goals (SDGs).
CLO 2	Analyze sustainability indicators, green finance instruments, resource depletion risks, and ecological-economic trade-offs.

CLO 3	Formulate ESD (Education for Sustainable Development) project proposals, green architecture models, and climate adaptation strategies.
CLO 4	Critically evaluate national environmental policies, green growth programs in Uzbekistan, and global environmental governance frameworks.

5. Teaching Technologies & Methods

• Interactive lectures and multimedia modeling;
• Case-study analysis, Group discussions, and Debates;
• Brainstorming, Cluster method, SWOT analysis, and Think-Pair-Share;
• Project-Based Learning (PBL) and ESD project defense.

6. Requirements for Earning Course Credits

Students must master theoretical sustainable development concepts, complete all assigned coursework, actively participate in analytical discussions, and achieve a passing score on the final written examination.

7. Assessment Criteria

• Excellent (90–100% / 5): Comprehensive mastery of sustainable development laws, UN SDGs, and environmental policies; error-free critical analysis; publication of scientific article or innovative ESD project defense.
• Good (70–89.9% / 4): Clear understanding of core sustainability themes, green economy principles, and international conventions; solid assignment execution with minor analytical gaps.
• Satisfactory (60–69.9% / 3): Basic familiarity with fundamental terms (SDGs, UNEP, ESD); partial fulfillment of course tasks; basic descriptive answers.
• Unsatisfactory (0–59.9% / 2): Failure to meet course competencies; uncompleted assignments; serious scientific errors or plagiarism.

8. Recommended Literature & Information Sources

Core Literature:
1. Buranova, M. A. (2024). Sustainable Development [Study Guide]. Tashkent.
2. Wals, A. E. J., & Benavot, A. (Eds.) (2017). Global Perspectives on Higher Education and Sustainable Development. Routledge.
3. Shephard, K. (2015). Higher Education for Sustainable Development. Palgrave Macmillan.
4. McKeown, R. (2002). Education for Sustainable Development Toolkit. UNESCO.
5. Sterling, S. (2001). Sustainable Education: Re-visioning Learning and Change. Green Books.

6. Khashimova, S. N. (2024). Green Economy [Textbook]. Tashkent State Technical University.
7. Djalalov, S. Ch., et al. (2021). Environmental and Resource Economics [Study Guide]. Tashkent.

Additional Literature:
8. Raworth, K. (2017). Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist. Random House.
9. Sachs, J. (2015). The Age of Sustainable Development. Columbia University Press.
10. UNEP. (2011). Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication.

Digital Sources:
11. UN Sustainable Development: https://www.un.org/esa/sustdev
12. UNEP Official: https://www.unep.org
13. UNESCO ESD Portal: https://www.unesco.org

9. UN Sustainable Development Goals (SDG) Alignment

• SDG 4 — Quality Education: Fosters Education for Sustainable Development (ESD) and eco-literacy.
• SDG 12 — Responsible Consumption and Production: Focuses on circular economy, resource efficiency, and green growth.
• SDG 13 — Climate Action: Evaluates climate policy, Paris Agreement compliance, and adaptation strategies.
• SDG 17 — Partnerships for the Goals: Promotes international environmental cooperation, UNEP frameworks, and global sustainability alliances.