NAVOI STATE UNIVERSITY

BIG1106 BIOGEOGRAPHY — COURSE SYLLABUS

Faculty of Natural Sciences and Medicine | Department of Biology | Evening Education Program

COURSE PASSPORT & ACADEMIC METADATA

Course Title:		**Course Code:**	
Biogeography		BIG1106	
Course Type:		**Field of Study:**	
Compulsory		100000 Education / 520000 Environment	
Programme:		**Academic Year:**	
60520200 Ecology and Environmental Protection		2025–2026	
Semester:		**Form of Education:**	
1		Evening Education	
ECTS Credits:		**Total Workload:**	
6 ECTS Credits		180 Hours (60 Contact Hours, 120 Independent Study Hours)	
Curriculum Reference:		**Weekly Contact Hours:**	
60520200-1.17		4 Hours	
Assessment:		**Aligned UN SDGs:**	
Final Examination		SDG 15 (Life on Land); SDG 14 (Life Below Water); SDG 13 (Climate Action)	







1. Course Description & Scope

The course 'Biogeography' (BIG1106) examines the geographic distribution of living organisms (flora, fauna, microorganisms) across Earth's biomes and ecosystem zones. It explores biosphere dynamics, floristic and faunistic zonation, island biogeography, adaptation mechanisms in arid and desert biomes, aquatic ecosystem biodiversity, and biogeographical strategies for biodiversity conservation.

2. Course Aims & Professional Competencies

Course Aim: To explain the general geographical laws governing the spatial distribution and adaptation of organisms across ecosystems, biomes, and altitudinal belts, and to provide scientific foundation for biodiversity preservation.

Professional Competencies:

• Knowledge: Understanding global biogeographical realms, terrestrial biomes (desert, mountain, forest), aquatic ecosystems, and Vernadsky's biosphere doctrine.
• Spatial & Analytical Skills: Mapping species distributions, analyzing floristic and faunistic regionalization, and assessing ecosystem stability.
• Conservation Competence: Designing biogeographical conservation strategies for endemic, rare, and Red Book species in Central Asia and Uzbekistan.
• Bio-environmental Management: Evaluating anthropogenic impacts on natural and artificial biogeocenoses and planning sustainable resource management.

3. Prerequisites

• Fundamentals of Ecology (EKO1504)
• Zoology (ZOO013410)
• Botany (BOT11210)

4. Course Learning Outcomes (CLO)

Code	Learning Outcome Description
CLO 1	Explain geographical patterns of organismal distribution across terrestrial biomes, aquatic habitats, and altitudinal belts.
CLO 2	Analyze floristic and faunistic regionalization, biogeocenotic stability, and ecosystem energy/matter cycles.
CLO 3	Map species distribution ranges, evaluate bioecological adaptations of desert/arid flora and

	fauna, and assess island biogeography dynamics.
CLO 4	Formulate biogeographical action plans for conserving endangered species listed in the Red Book of Uzbekistan and managing protected natural areas.

5. Teaching Technologies & Methods

• Interactive lectures and biogeographical spatial modeling;
• Map-based practical exercises and species distribution mapping;
• Case-study analysis of regional ecosystem adaptations and Red Book species;
• Group presentations, Brainstorming, and project-based assignments.

6. Requirements for Earning Course Credits

Students must master theoretical biogeographical concepts, complete practical mapping assignments, submit independent study projects on schedule, actively participate in seminar discussions, and successfully pass the final written examination.

7. Assessment Criteria

• Excellent (5): Deep understanding of biogeographical laws, biome structures, and species distribution dynamics; faultless mapping and spatial analysis; creative conservation proposals.
• Good (4): Solid grasp of core themes, ecosystem zonation, and floristic/faunistic regionalization; accurate assignment execution with minor analytical gaps.
• Satisfactory (3): General understanding of basic concepts; partial completion of independent assignments; basic descriptive answers.
• Unsatisfactory (2): Failure to meet course competencies; uncompleted assignments; major conceptual errors or plagiarism.

8. Recommended Literature & Information Sources

Core Literature:

1. Tursunov, Kh. T., & Rakhimova, T. U. (2020). Ecology [Study Guide]. NIF MSH, Tashkent.
2. Izzatullayev, Z., Botirov, Kh. F., & Fayzullayev, B. (2018). Fundamentals of Ecology [Study Guide]. Zarafshon, Samarkand.
3. Ergashev, A. (2003). General Ecology [Textbook]. Uzbekistan Publishing, Tashkent.
4. Salimov, Kh. V. (2015). Ecology [Study Guide]. Konchi Texproekt, Navoi.
5. Qayumov, A. A., et al. (2011). Nature Use and Environmental Protection. Fan, Tashkent.
6. Smith, T. M., & Smith, R. L. (2014). Elements of Ecology (9th ed.). Pearson Education.

Additional Literature:

7. Yormatova, D., & Abdunazarov, S. (2012). Environmental Monitoring [Textbook]. Fan va Texnologiya, Tashkent.

8. Bobonazarov, G. (2021). Biodiversity. Nasaf, Karshi.

Digital Sources:
9. http://www.ecology.ru
10. http://www.ecolog.com
11. http://www.environ.com

9. UN Sustainable Development Goals (SDG) Alignment

• SDG 15 — Life on Land: Directly aligns by focusing on terrestrial ecosystem protection, combatting desertification, preventing habitat loss, and conserving flora and fauna biodiversity [cite: 94, 95].
• SDG 14 — Life Below Water: Aligns through the study of inland water ecosystems (rivers, lakes), aquatic biodiversity distribution, and water habitat protection [cite: 94, 95].
• SDG 13 — Climate Action: Addresses biological adaptations to microclimatic and regional climate changes, biome shift dynamics, and ecological resilience [cite: 94, 96].