NAVOI STATE UNIVERSITY

TG1206 SOIL GEOGRAPHY — COURSE SYLLABUS

Department of Geography | 60530200 Geography Programme

COURSE PASSPORT & ACADEMIC METADATA

Course Title:	Course Code:
Soil Geography	TG1206
Course Type:	**Field of Study:**
Compulsory Course	500000 Natural Sciences, Mathematics & Statistics / 530000 Physics & Natural Sciences
Programme:	**Academic Year:**
60530200 Geography	2025–2026
Semester:	**Form of Education:**
2 (Semester 2)	Full-time / Uzbek & Russian Delivery
ECTS Credits:	**Total Workload:**
6 ECTS Credits	180 Hours (90 Contact Hours [Lectures & Practicals], 90 Independent Study Hours)
Weekly Contact Hours:	**Assessment:**
6 Hours	Current, Interim, and Final Examinations
Curriculum Code:	**Aligned UN SDGs:**
60530200-2.04	SDG 15 (Life on Land); SDG 2 (Zero Hunger); SDG 12 (Responsible Consumption & Production); SDG 13 (Climate Action)



1. Course Description & Scope

The course 'Soil Geography' (TG1206) examines soil as a complex multi-component bio-inert system, covering soil genesis, pedogenic factors, soil morphology, mineralogical/chemical composition, humus dynamics, fertility evaluation, bioclimatic zoning, soil salinization, melioration, erosion, and soil conservation strategies [cite: 141, 142, 143].

2. Course Aims & Professional Competencies

Course Aim: To provide students with scientific knowledge on soil formation laws, soil classification, spatial distribution patterns across global and regional zones, soil land evaluation (bonitation), and land conservation techniques [cite: 141].

Professional Competencies:

• Soil Genesis & Morphological Knowledge: Understanding pedogenic processes, soil profile structures, genetic horizons, and mineral/organic constituents [cite: 141, 142].
• Mapping & Analytical Skills: Mastering field soil mapping methods, soil profile monolith extraction, soil cartography, and bonitation scoring [cite: 143, 144, 145].
• Applied Environmental Competence: Assessing soil salinization, chemical pollution, erosion dynamics, and designing soil reclamation and protection plans [cite: 143, 145].

3. Prerequisites

• General Chemistry and Biology [cite: 141, 142]
• Physical Geography and Geology [cite: 141]

4. Course Learning Outcomes (CLO)

Code	Learning Outcome Description
CLO 1	Explain soil-forming factors, pedogenic horizons, soil classification systems, and humification theories [cite: 141, 142].
CLO 2	Analyze horizontal, vertical, and provincial distribution laws of global and regional soil bioclimatic zones [cite: 142, 143].
CLO 3	Conduct field soil mapping, sample collection, soil cartographic interpretation, and soil bonitation scoring [cite: 143, 144, 145].
CLO 4	Formulate soil erosion prevention strategies, land reclamation (melioration) plans, and sustainable land management measures [cite: 143, 145].

5. Teaching Technologies & Methods

• Interactive lectures and soil profile visualizations;
• Practical soil map creation, soil monolith analysis, and bonitation calculations [cite: 144, 145];
• Field investigation methods and laboratory data processing [cite: 143, 145];
• Team projects and presentation defenses [cite: 145].

6. Requirements for Earning Course Credits

Students must master theoretical pedology principles, complete field mapping assignments, submit individual independent research projects, and pass current, interim, and final examinations [cite: 145].

7. Assessment Criteria

Evaluation is conducted on a 100-point rating system across written exams, soil map assignments, and laboratory/field project defenses [cite: 145].

8. Recommended Literature & Information Sources

Core Literature:

1. Khodjimatov, A. N., & Kholmurodov, Sh. A. (2018). Soil Geography [Textbook]. Fan va Texnologiyalar, Tashkent [cite: 145].
2. Toshkhojayev, R. (2000). Soil Science [Textbook]. TDPU, Tashkent [cite: 145].
3. Schaetzl, R. J., & Thompson, M. L. (2015). Soils: Genesis and Geomorphology (2nd ed.). Cambridge University Press [cite: 145, 146].

Additional Literature:

4. Abdullayev, S. A., & Nomozov, Kh. Q. (2018). Soil Melioration and Hydrology [Textbook]. Fan va Texnologiya [cite: 145].
5. Dobrovolsky, G. V., & Urusevskaya, I. S. (2004). Soil Geography [Textbook]. MSU Publishing [cite: 146].

Digital Sources:

6. Soil Information Portal of Uzbekistan: www.soil.uz [cite: 146]
7. MSU Faculty of Soil Science: www.soil.msu.ru [cite: 146]

9. UN Sustainable Development Goals (SDG) Alignment

• SDG 15 — Life on Land: Addresses soil erosion prevention, combating land degradation, and protecting soil biodiversity [cite: 143, 145].
• SDG 2 — Zero Hunger: Enhances agricultural soil fertility, land bonitation, and sustainable crop productivity [cite: 142, 145].
• SDG 12 — Responsible Consumption & Production: Focuses on soil chemical pollution mitigation and sustainable land resource utilization [cite: 143, 145].
• SDG 13 — Climate Action: Evaluates soil organic matter (humus) carbon sequestration and bioclimatic soil responses [cite: 142, 143].