

Navoi State University – Geography

Program Duration: 2 years

Mode of Study: Full-time

Program Code: 70530201

Total Workload: 120 ECTS credits

ECTS credits per semester: 30

Overview

The Master's degree program in **Geography** (Program Code: 70530201) at Navoi State University is a two-year, full-time academic program comprising a total workload of 120 ECTS credits (30 ECTS per semester). The program is designed to prepare highly qualified geographers, spatial analysts, urban planners, and environmental managers equipped with advanced knowledge in physical and human geography, Geographic Information Systems (GIS), remote sensing, spatial-temporal analysis, and regional sustainable development.

The curriculum integrates theoretical instruction, field-based research, and digital spatial mapping techniques. Students learn to analyze natural landscape dynamics, climate variations, demographic shifts, economic spatial distributions, and land-use strategies. The program places strong emphasis on addressing Uzbekistan's regional physical-geographical, hydrological, socio-economic, and ecological challenges, including desertification, water resource distribution, soil erosion, and territorial planning.

Graduates of this program are fully equipped to pursue careers as spatial data analysts, GIS specialists, environmental and land-use planners, cartographers, research officers in scientific institutes, and academic staff in higher education, as well as to continue their studies at the doctoral (PhD) level.

Assessment

A comprehensive and multi-component assessment system is applied in the Master's program in Geography to ensure continuous learning, spatial analytical competence, and scientific rigor.

1. Course-based assessment

- **Presentations and seminars** – assess students' ability to analyze, present, and defend geographic research, territorial development models, and spatial-demographic studies in academic settings.
- **Mini-tests, quizzes, and oral exams** – monitor understanding of core theoretical concepts, geomorphology, climate studies, population geography, and GIS operations.
- **Midterm and final examinations** – evaluate theoretical and practical knowledge through written exams, map interpretation tasks, and spatial problem-solving assignments.
- **Portfolio assignments** – compile field expedition logs, thematic digital map series, GIS project files, and research paper drafts demonstrating progressive skills.

- **Independent assignments** – encourage independent spatial literature reviews, satellite imagery processing, demographic data modeling, and territorial analysis.
- 2. **Research-based assessment**
 - **Scientific Research Work (ITI)** – evaluated through research proposals, field progress reports, and defense of spatial research findings before the department.
 - **Scientific and Pedagogical Work (IPI)** – evaluated via teaching practice, development of geography training modules, and scientific reporting.
 - **Master’s Thesis (MD/M)** – evaluated based on overall scientific rigor, practical relevance, cartographic quality, thesis writing, and public defense before the State Attestation Commission.
- 3. **Practice-based assessment**
 - **Field and Industrial Practice** – evaluated through performance in cadastral agencies, meteorological departments, urban planning bureaus, and nature reserves, accompanied by comprehensive practice reports.
 - **Pre-graduation practice** – assessed on the integration of field data, GIS mapping, and final thesis preparation.
- 4. **Work-integrated learning**
 - **GIS and Remote Sensing Projects** – assessed on spatial accuracy, map aesthetics, innovative use of satellite data, and practical relevance to regional planning needs.

Academic Requirements

Admission Requirements: Applicants applying for the Master’s degree program in Geography (Code: 70530201) must satisfy the following criteria:

- **Educational background** – A Bachelor’s degree (or equivalent qualification) in geography, geodesy and cartography, ecology, environmental sciences, geology, or related fields from a recognized higher education institution.
- **Academic excellence** – Applicants holding an honors diploma (*imtiyozli diplom*) are eligible for preferential admission according to current regulations of the Ministry of Higher Education, Science and Innovation of the Republic of Uzbekistan.
- **Language proficiency** – A valid national or international certificate demonstrating at least B2-level foreign language proficiency (CEFR, IELTS, TOEFL, etc.) in English, Russian, or another recognized foreign language.

Graduation Requirements

To be granted the Master of Science degree in Geography, students are required to:

- Complete all compulsory and elective modules in the curriculum, accumulating a total of **120 ECTS credits** (30 ECTS per semester).
- Maintain standard academic standing according to Navoi State University regulations (passing marks in all subjects).
- Successfully complete all practical trainings (field geography expeditions, research practice, and pre-graduation practice) with positive performance evaluations.
- Fulfill all research requirements (Scientific Research Work and Scientific-Pedagogical Work).
- Prepare, submit, and successfully defend a **Master’s Thesis** demonstrating original geographical research and spatial analysis before the State Attestation Commission.
- Pass all required state attestation processes.

Courses Offered

Year 1

Compulsory:

- Research Methodology in Geography and Spatial Sciences
- Reforms in the Education System under the Development Strategy of New Uzbekistan
- Advanced Physical Geography and Landscape Ecology
- Advanced Economic and Social Geography of Uzbekistan and Neighboring Regions
- Modern Geographic Information Systems (GIS) and Digital Mapping

Elective:

- Remote Sensing and Satellite Imagery Analysis
- Applied Geomorphology and Hydro-climatology
- Population Geography and Demography
- Land Cadastre and Territorial Resource Management
- Regulatory Documents and Spatial Planning Legislation

Year 2

Compulsory:

- Global Climate Change and Geoecological Issues
- Urban Geography and Spatial Planning
- Geoecology and Environmental Monitoring

Elective:

- Tourism Geography and Recreational Land Use
- Arid Zone Geography and Desertification Control
- Geographical Modeling and Spatial Statistics
- Professional Morality and Ethics in Geosciences
- Regional Economic Integration and Geopolitics
- Soil Geography and Agricultural Land Assessment
- Water Resources Management and Hydrological Modeling

Career Opportunities

Graduates of the Master's degree program in Geography acquire comprehensive spatial analytical and field investigation skills, allowing them to pursue careers across public, research, and corporate sectors:

- **Research Scientist / Specialist** at the Academy of Sciences of the Republic of Uzbekistan (e.g., Institute of Geology and Geophysics, Hydrometeorological Research Institute) and geographical centers.
- **GIS and Remote Sensing Analyst / Specialist** in cadastre agencies, cartographic enterprises, urban planning institutes, and agricultural management departments.
- **Specialist / Officer** at the Ministry of Ecology, Environmental Protection and Climate Change, Agency for Cadastre under the State Tax Committee, and the Centre of Hydrometeorological Service (Uzhydromet).

- **Geography Lecturer / Instructor** in higher education institutions, specialized academic lyceums, professional colleges, and secondary schools.
- **Territorial and Urban Planner** in municipal architecture and construction departments, regional development agencies, and infrastructure consulting firms.
- **Environmental & Tourism Consultant** in ecotourism companies, national nature parks, state reserves, and regional tourism development departments.
- **Project Specialist / Coordinator** in international development organizations (UNDP, FAO, GIZ, World Bank) working on climate adaptation, land conservation, and water resources in Central Asia.
- **Land-use and Resources Manager** in agricultural combines, mining enterprises, and natural resource extraction corporations.

Tuition Fees

- **For local students:** Approximate annual tuition – 9,700,000 UZS.
- **For international students:** Approximate annual tuition – 774.28 USD.

(Note: Tuition fees are subject to adjustment in accordance with university policy and foreign currency exchange rates.)

Learning Outcomes

Master's Degree in Geography

Upon successful completion of the program, graduates will be able to:

1. Knowledge

- **1.1.** Demonstrate in-depth knowledge of theoretical geography, landscape science, socio-economic spatial structures, and global environmental dynamics.
- **1.2.** Understand state laws, national development strategies, regional spatial planning frameworks, and land cadastre regulations in Uzbekistan.
- **1.3.** Explain the principles of climate change impacts, hydrological processes, soil degradation, and desertification dynamics in arid regions.
- **1.4.** Demonstrate comprehensive knowledge of Geographic Information Systems (GIS), satellite remote sensing methods, photogrammetry, and digital cartography.
- **1.5.** Recognize the complex interactions between human populations, economic activities, urban growth, and natural ecosystems.

2. Skills

- **2.1.** Design and execute complex physical and socio-economic geographic field surveys, land-use assessments, and environmental mapping projects.
- **2.2.** Utilize industry-standard GIS software (ArcGIS, QGIS) and remote sensing platforms to process satellite imagery, construct spatial databases, and build thematic maps.
- **2.3.** Apply statistical, demographic, and spatial modeling tools to evaluate population dynamics, urban expansion, and economic zoning.
- **2.4.** Formulate recommendations for natural resource management, climate adaptation, territorial infrastructure development, and disaster risk reduction.
- **2.5.** Prepare professional geographic reports, land-use plans, research publications, and interactive spatial data visualizations.

- **2.6.** Effectively present spatial findings and geographic analysis to policy-makers, local authorities, and academic communities in national and foreign languages.

3. Competences

- **3.1. Geographical & Spatial Competence** – Conduct independent, safe, and original geographical research applying integrated physical, human, and geospatial methods.
- **3.2. Territorial Management Competence** – Manage GIS laboratories, cartographic workflows, and land evaluation projects in governmental and private organization settings.
- **3.3. Methodological & Educational Competence** – Teach geography subjects at higher education and secondary specialized levels using interactive technologies and field-based training.
- **3.4. Project Leadership Competence** – Lead interdisciplinary teams in regional planning, urban geography, geo-ecological monitoring, and disaster risk mitigation campaigns.
- **3.5. Ethical & Environmental Competence** – Demonstrate high ethical standards, academic integrity, and commitment to sustainable land stewardship and biophysical conservation.
- **3.6. Lifelong Learning Competence** – Continuously upgrade technical, GIS, and research competencies by attending international geographical conferences, workshops, and specialized training programs.