In-field Elective Courses

- The program offers in-field elective courses in the form of course groups or modules to enable students to develop specialized expertise in areas of their interest and to respond to labor market needs. Students shall select not less than 12 credits from a single course group under (a) Elective Courses by Course Group. In addition, students shall select not less than 3 credits from courses within the same course group, from another course group, or from (b) Independent In-field Elective Courses.
- In-field Elective Courses by Course Group (Module) consist of four main course groups, as follows:

Geographic Concepts and Methods for Sustainable Human Settlement Development

Geomorphology and Land Cover Changes and Utilization

Climate Change and Natural Disaster Management

Geoinformatics and Data Science for Spatial Analysis

In-field Elective Courses

Course Group 1

Geographic Concepts and Methods for Sustainable Human Settlement Development

This module integrates geographic concepts with methodological approaches to examine human settlements, urbanization processes, economic activities, and the environmental impacts of human activities. It emphasizes the application of geographic knowledge to analyze settlement-related issues, formulate appropriate policy directions, and support sustainable human settlement development.

Elective Courses

01451321	Economic Geography
01451326	Applied Geographic Method for Human Settlement Development
01451345	Land and Environmental Policies
01451423	Urban Geography
01451441	Geography of Tourism Resources

Career Path

- Urban Planner
- Community Development Officer
- Policy and Planning Analyst
- Urban and Regional Researcher
- Real Estate and Location Analyst

In-field Elective Courses

Course Group 2

Geomorphology and Land Cover Changes and Utilization

This course group focuses on physical geography and environmental systems to understand Earth surface processes, land cover changes, natural resources, and their utilization. Students will develop the ability to analyze physical and environmental changes, assess resource-related issues, and apply geoinformatics and field-based approaches to support sustainable resource management.

Elective Courses

01451323	Agricultural Geography
01451342	Environmental Geography
01451344	Energy Sources and Consumption
01451347	Dynamic of the Earth
01451442	Marine Geography

Career Path

- Physical Geography Analyst
- Environmental Analyst
- GIS Analyst for Environmental and Resource Management
- Researcher

In-field Elective Courses

Course Group 3

Climate Change and Natural Disaster Management

This course group focuses on climate change, natural hazards, disaster risk, water resources, health geography, and natural resource conservation. Students will develop the ability to understand climate and environmental processes, assess disaster vulnerability and risk, and apply geoinformatics and spatial data to support disaster management, climate adaptation, public health planning, and sustainable resource conservation.

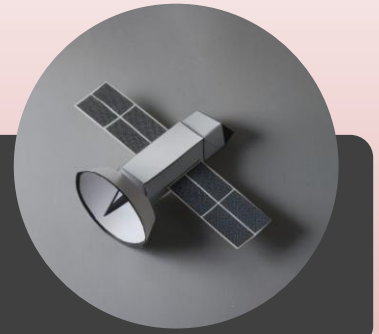
Elective Courses

01451341	Conservation of Natural Resources
01451343	Climate and Climate Change
01451356	Geoinformatics for Disaster Management
01451422	Health Geography
01451443	Hydrogeography

Career Path

- GIS Analyst for Disaster Management
- Natural Resource Conservation Officer
- Hydrological Data Analyst
- Policy and Planning Analyst
- Researcher

In-field Elective Courses



Course Group 4

Geoinformatics and Data Science for Spatial Analysis

This course group develops students' skills in geoinformatics, UAV technology, remote sensing, spatial databases, programming, and data science for spatial analysis. It prepares students to collect, manage, analyze, and visualize geospatial data for applications in logistics, natural resources, environmental monitoring, and spatial decision-making.

Elective Courses

01451358 Applications of Unmanned Aerial Vehicle for Geographer

01451453 Applications of Microwave and Hyperspectral Remote Sensing in Geography

01451324 Geography of Logistics Management

01451455 Geoinformatics for Natural Resources Management

01451454 Programming for Geographer

Career Path

- GIS and RS Analyst
- Spatial Data Scientist
- GIS Programmer
- Logistics and Network Analyst
- UAV Mapping Specialist