

Department of Geography

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Graduate students are encouraged to select a supervising professor to guide and direct their academic program as early as possible. Students work closely with their supervising professor to plan and pursue study programs that are geared to their own particular interests and needs. The development of research skills and the identification of a research topic are the critical part of the students' program.

Although the topic of every thesis is unique, most graduate students work in the areas of physical geography, human geography, geographic information science and cartography, or regional studies. Computer and laboratory techniques serve the needs of both scientific and humanistic research and teaching, which include virtual education, geographic information science, computer cartography, remote sensing, and spatial analysis.

The professional development of students involves education in the discipline's heritage and philosophy as well as current issues and theories. Interdisciplinary expertise is developed through course work. Students are encouraged to attend and present papers at regional and international conference meetings, and to develop skills in leadership, service, and teaching.

| Degree Requirements |

To obtain a master's or doctoral degree of geography, the following requirements are to be satisfied

- complete at least 24 course units of graduate level credits in geography for a master's degree and 60 course units for doctoral degree(including units completed in master course).
- pass a qualifying examination.
- fulfill presentation, defense, and document requirements for the graduate committee.

| Courses |

Physical Geography

Paleoclimatology and Climate Change, Climatology and history, Urban Climatology, Microclimatology, General Climatology, Synoptic Climatology, Biogeography, Mountain Biogeography, Phytogeography, Korean Ecosystem and Natural History, Environmental Change and Ecosystem, Environmental Geography, The Quaternary Research, Climatic Geomorphology, Geomorphological Practice, Applied Geomorphology, General Geomorphology, Archeological Geography, Hillslope Process, Hydrogeomorphology, Fluvial Process, Hydrogeography, Seminar on Natural Disaster, Soil Geography

Human Geography

Transportation Geography, Mobilities and Society, Research Seminar on Transportation Geography, Geography of Leisure and Tourism, Understanding Tourism Place, Seminar on the Geography of Leisure and Tourism, Research Methods in Economic Geography, Seminar on Economic Geography, Lectures Economic Geography, Location Theory, Research on Regional Development, Regional Theory, Urban Geography, Seminar in Urban Geography, Urban Transportation, Geography of Urban Tourism, History of Geography, Social Geography, Seminar on Social Geography, Cultural Geography, Population Geography, Political Geography, Seminar on Regional Geography

Geographic Information Science and Cartography

Geographic Information Analysis, Principles of Geographic Information Science, Selected Topics in Cartography, Principles of Analytical Cartography, Visual Communication with Geographic Information Systems, Ontologies for GIS, Topics in Spatial Statistics, Geospatial Analysis and Modelling, Digital Techniques of Remote Sensing, Selected Topics in Remote Sensing, The Use and Application of Geographic Information Systems, Environmental GIS and Disaster Management, GIS Development and Simulation, Geospatial Database

Regional Geography

Seminar on the Geography of Korea, Seminar on the Geography of Asia, Seminar on the Geography of Europe, Seminar on the Geography of North America, Seminar on the Geography of South America, Seminar on the Geography of Africa, Seminar on the Geography of Oceania

| Faculty |

- ___ Jeon-Young Kang, Ph.D. University of New York at the Buffalo(SUNY-Buffalo), 2018, Assistant Professor, Spatial Data Science, geokang@khu.ac.kr
- ___ Ji-Hyun Kim, Ph.D. Boston University, 2015, Assistant Professor, Forest Ecology, Remote Sensing
- ___ Yukiya Tanaka, Ph.D. The University of Tokyo, 1994, Professor, Hydrology, Hillslope Process, ytanaka@khu.ac.kr
- ___ Park, Jinwoo, Ph.D. Texas A&M University, 2021, Assistant Professor, GIScience, Urban Dynamics, jparkgeo@khu.ac.kr
- ___ Eungul Lee, Ph.D. University of Colorado at Boulder, 2007, Professor, Climatology, eungul.lee@khu.ac.kr
- ___ Jeong, Ara, Ph.D. Arizona State University, 2019, Assistant Professor, Geomorphology, ara.jeong@khu.ac.kr
- ___ Joh Chang-Hyeon, Ph.D. Eindhoven University of Technology, 2004, Professor, Urban Planning, bwchjoh@khu.ac.kr
- ___ Sungjae Choo, Ph.D. State University of New York at Buffalo, 1993, Professor, Economic Geography/Regional Development, Toponymy, sjchoo@khu.ac.kr
- ___ Sang-Hyun Chi, Ph.D. University of Illinois at Urbana-Champaign, 2011, Professor, Social and Political Geography, hyungeo@khu.ac.kr
- ___ Suh-hee Choi, Ph.D. Purdue University, 2011, Associate Professor, Tourism Geography, suhhee@khu.ac.kr
- ___ Jinmu Choi, Ph.D. University of Georgia, 2004, Professor, GIS/RS, Disaster Management, cjm89@khu.ac.kr
- ___ Seong-Yun Hong, Ph.D. University of Auckland, 2011, Associate Professor, GIScience and Urban Analytics, syhong@khu.ac.kr
- ___ Chul Sue Hwang, Ph.D. Seoul National University, 1998, Professor, Cartography, GIS, hcs@khu.ac.kr

| Laboratories |

■ Hydrology Laboratory

Director : Professor Yukiya Tanaka(ytanaka@khu.ac.kr)

Research Overview

The research at the Hydrology Laboratory focuses on the study of hillslope hydrology, soil property, runoff processes, soil erosion and natural disasters. We present a new technique to estimate the spatial distribution of water using special data. Our studies are based on field and laboratory hydrological measurements of rainfall, runoff, soil property, natural disasters such as landslide and flood using equipment such as a weir, tensiometer, vane, and soil moisture meter.

■ Geomorphology Laboratory

Director : Assistant Professor Jeong, Ara(ara.jeong@khu.ac.kr)

Research Overview

The research at the Geomorphology Laboratory at Kyung Hee University focuses on the study of quaternary, fluvial geomorphology, coastal geomorphology, weathering and geomorphology of mountains that reconstruct the environments of the past. We also analyze pollen, grain size, weathering, stratigraphy, and aerial photography for various studies.

■ Integrated Climate Process Laboratory

URL : <http://climate.khu.ac.kr>

Director : Professor Eungul Lee(Eungul.lee@khu.ac.kr)

Research Overview

Climatology is concerned with average and comprehensive atmospheric phenomena over a long period of time. Climate is one of the important factors that greatly affects the human and natural environment of a space, and natural processes and human activities can also affect the climate. The Integrated Climate Process Lab(ICP) Laboratory at Kyung Hee University focuses on the effects of climate on the monsoon climate, the interaction between the surface and the atmosphere, and agriculture, forests, and human life, targeting not only the Korean Peninsula and East Asia, but also around the world. Through these three research topics, we are aiming for comprehensive and scientific research among various disciplines such as biology, health science, and agriculture.

■ Economic Geography and Toponymy Research Laboratory

Director : Professor Sungjae Cho(sjchoo@khu.ac.kr)

Research Overview

The Economic Geography and Toponymy Research Laboratory at Kyung Hee University focuses on the study on economic geo-graphy, regional geography, regional planning and development, urban geography, transportation geography, tourism geography, social geography and more. Through research, interactive relationships between human actions and society and space are analyzed.

■ Human Geography Laboratory

Director : Professor Sang-Hyun Chi(hyungeo@khu.ac.kr)

Research Overview

The Economic Geography and Toponymy Research Laboratory at Kyung Hee University focuses on the study on Political Geography, Urban Geography, Cultural Geography, Social Geography, Spatial Analysis, Political Ecology and Environmental Politics, Law and Space, Spatial Philosophy.

■ Cultural & Tourism Geography Research Laboratory

Director : Associate Professor Suh-hee Choi(suhhee@khu.ac.kr)

Research Overview

In the Cultural Tourism Geography Research Lab, we study the phenomenon that the movement of humans, objects, information, etc. interacts at various spatial scales from the perspective of culture and tourism. In other words, research is conducted in various fields to understand the formation of place images of residents, immigrants, temporary residents, tourists, etc., leisure, experiences of and attitudes toward other cultures, perceptions of (traditional) cultures, and tourism behaviors.

■ Spatial Analysis Laboratory

Director : Professor Jinmu Choi(cjm89@khu.ac.kr)

Research Overview

Spatial Analysis Laboratory at Kyung Hee University focuses on the study on GIS, Cartography, Remote sensing, Disaster and Environmental Information System.

■ Geospatial Big Data Laboratory

Director : Associate Professor Seong-Yun Hong(syhong@khu.ac.kr)

Research Overview

Spatial Analysis Laboratory at Kyung Hee University focuses on the study on spatial data interpolation and algorithm optimization using machine learning, parallelization of spatial analysis process in cloud computing environment, visualization clustering, and separation analysis of activity spatial data, Exploring the hierarchical structure of urban spaces and drawing implications Reproducible spatial data analysis, Solving social problems through spatial data analysis.

■ Geographical Information Science Laboratory

URL : <http://gis.khu.ac.kr>

Director : Professor Chul Sue Hwang(hcs@khu.ac.kr)

Research Overview

Research in Geographical Information Science at Kyung Hee includes topics concerning GIS, cartography, quantitative methods, representation, qualitative methods, remote sensing, visualization, spatial cognition, and education. The Internet website(<http://gis.khu.ac.kr>) is an academic support unit of the GIS Laboratory, the Department of Geography. We support the university's mission of instruction, research, and service by designing and producing custom maps and other information graphics.

■ Geographical Simulation Laboratory

URL : <https://sites.google.com/view/khu-geosimulationlab>

Director : Assistant Professor Jeon-Young Kang(geokang@khu.ac.kr)

Research Overview

The Geosimulation Lab, directed by Professor Jeon-Young Kang in the Department of Geography at Kyung Hee University, conducts research on spatiotemporal patterns of geographical phenomena through spatial simulation and analytical modeling. The lab employs methodologies such as agent-based modeling, spatial data science, GeoAI, and high-performance computing. Research topics include the diffusion of infectious diseases, urban infrastructure accessibility, population decline and regional extinction, quality of urban life, and the advancement of address systems. The Geosimulation Lab aims to contribute to academic advancement and to the development of practical policy solutions.

■ Urban Computing Laboratory

URL : under construction

Director : Assistant Professor Jinwoo Park(jparkgeo@khu.ac.kr)

Research Overview

The Urban Computing Laboratory, directed by Assistant Professor Jinwoo Park in the Department of Geography at Kyung Hee University, focuses on modeling and analyzing urban phenomena from the perspective of geographic information science. By leveraging today's data-rich environment and high-performance computing, the lab investigates the spatial and temporal dynamics of urban systems with an emphasis on accessibility, sustainability, and inclusiveness. Research areas include human mobility, transportation networks, and the provision of essential urban infrastructure, with the goal of generating insights that inform innovative policies and planning strategies. The official website of the Urban Computing Laboratory is currently under construction.