Geography Undergraduate Programs

Geographers study people and our environments across the globe and throughout time. Geographers bring together global and local perspectives to address today’s challenges. The UT Geography Department offers BA degrees in Geography and in Sustainability, BS in GIST, and several minor and other programs.

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Geography Major & Minor

Climate and Climate Change Concentration
The Climate and Climate Change Concentration provides students with the knowledge necessary to understand past, present, and future global climate patterns and trends. Courses focus on understanding the foundations of global climate patterns, how climate has changed through time, and how climate change has affected people, plants, and animals, the landscape, and natural hazards. Students in this concentration will gain skills in assessing past climate change through proxy records, understanding current weather and climate patterns, and evaluating when and how much climate can be expected to change in the near and far future.

Geospatial Science and Technology Concentration
The Geospatial Science and Technology concentration provides a practical understanding of GIS technology and its application in various fields, such as natural resource management, marketing, disaster response, social welfare, etc. Students explore a range of GIS topics and gain hands-on experience in this concentration. The Geospatial Science and Technology concentration will help Geography majors pursue jobs in many different career paths that require more technical expertise.

Landscapes and Environmental Change Concentration
The Landscapes and Environmental Change concentration focuses on understanding how landscape and environmental changes, hazards, and disasters have altered the earth’s surface and impacted human populations and societies. Some key questions addressed in the courses in this concentration concern the role humans have played in facilitating landscape and environmental changes. The students completing this concentration will be poised for careers in academia and jobs associated with environmental management and consulting, landscape design and planning, ecological and hazards risk assessment, water resources management, and others.

Space, Society, and Culture Concentration
Courses in the Space, Society and Culture concentration study how people, groups and communities create distinctive landscapes, how they claim, occupy, and even struggle over places, and how they identify with places and animate our surroundings with meaning. Students learn to critically examine their own culture and others’ ways of life, thereby gaining a greater understanding of themselves and the world at large. Skills developed in this concentration can be applied to employment in education, government and international organizations, urban planning, non-profit organizations, travel and tourism, businesses, international trade, and other fields.

World Cities and Economies Concentration
The World Cities and Economies concentration encompasses the spatial elements of economic activities as well as the dynamism of cities. Students will engage with urban and regional analysis and several topics within economic and urban geography. This concentration prepares students for careers in government, international organizations, and the private sector, as well as jobs in urban planning, business, and other fields.
Sustainability Major and Minor

The sustainability major and minor engage students in a systems approach to understanding the connections between society, economics, and the environment. Experiential learning is a core goal of the sustainability program. Students take service-learning and field methods courses as part of the curriculum and are encouraged to engage in sustainability initiatives on campus and in the surrounding community.

**Honors can be applied to all above Geography and Sustainability Majors**

Geographic Information Science and Technology (GIST) B.S. Program

The GIST major within the Department of Geography explores a wide range of sub-disciplines including transportation logistics, remote sensing (including satellites and drones) emergency management, urban planning, public health, and resource and environmental management, among others. The GIST program will teach students to use spatial mapping, modeling, and analytics to make informed decisions. Foundational training in spatial, statistical, and mathematical analysis, as well as computer science, spatial data structures, algorithms, and information visualization will occur. The technical skills needed to retrieve and cleanse big spatial data for real-world applications will also be taught. Additionally, students learn the skills to prepare and display data to model, analyze, and evaluate issues at hand. Students conclude their time in the GIST program with either a capstone project or an internship, which will demonstrate to potential employers that you are more than capable of following the process of utilizing geospatial science in a real-world setting.

Additional Programs

**Geographic Information Science (GIS) Minor:** Geographic Information Science Minors develop knowledge of geographic data processing, analysis and visualization skills to complement their chosen Major discipline. Students learn to analyze and visualize spatial data and develop skills that can be applied to the development, understanding and processing of spatial data. The GIScience minor can improve job prospects and widen students’ intellectual and professional development.

**Urban Studies Minor:** Students will learn about the major topics, issues, and problems currently confronting cities in different parts of the world. They will be asked to analyze and study these topics and issues and to think about their different effects on local and global communities. Students will also be able to draw from their major to apply their knowledge and experience to urban issues and topics. They will be expected to analyze information, apply it to different urban contexts and to critically think about possible solutions, other approaches and/or alternative frameworks or theories.

**Climate Change Minor:** Students in this minor develop a deep understanding of the Earth’s climate system—past, present, and future—and the tools used to study climate and its impacts. They will be able to describe natural and anthropogenic causes for changes in Earth’s climate, as well as how climate affects people, the biosphere, and other Earth systems.

Study Abroad Programs

**Urban Sustainability in Freiburg, Germany:** Students can engage in sustainability courses abroad by taking GEOG 491 – Urban Sustainability. This Mini-Term course in May is currently being offered annually. For more information, please see the tentative course syllabus and itinerary.

**UF/UTK in South Africa:** People, Parks and Conservation in Africa: In this May Mini-Term Course students will contribute to long term research programs and data sets that are being developed to understand the interactions between land use and land cover change, and the socio-economic drivers and effects of these changes. The main location of this program is Kruger National Park, South Africa.