

## About the Department

The Department of Global Studies and Geography offers a wide variety of global studies and geography courses which lead to a BA in Global Studies or a BA in Geography (including a specialization in GIS) or a BS in GIS. Students interested in the Pre-Health program can choose a concentration in Global Studies or Geography. We actively encourage students to double major and many of our students are pursuing additional majors in subjects as varied as Political Science, Economics, Public Policy, Criminology, Sustainability, Journalism, Public Relations, Psychology, and Geology.

Our faculty work with students to tailor programs that meet their interests, needs, and ultimately shape a rewarding post-Hofstra career. Additionally, we guide our students in finding relevant internships and study abroad programs for which they can obtain course credit toward their degree.

Graduates have found employment in a wide variety of occupations, reflecting the width and depth of our programs. Recent graduates have become lawyers, doctors, teachers, urban planners, GIS practitioners, book editors, congressional aides, PR professionals, and journalists - just to name a few! Many of our graduates have pursued further education at prestigious graduate schools while others have been accepted into programs such as the Peace Corps and Teach for America.

Please explore our Department website to find out more about all the exciting academic and career options that we offer.

## Meet Our Professors

**CHAIRPERSON:** **Grant Saff**, Ph.D. (Rutgers University) Global Economy, Urban Geography, Urban Planning, Economic Geography

**Craig M. Dalton**, Ph.D. (University of North Carolina at Chapel Hill) Cultural Geography, Geographic Information Systems

**Zilkia Janer**, Ph.D. (Duke University) Cultural Globalization, Global Food Cultures

**Kari Jensen**, Ph.D. (Penn State) Cultural Geography, South Asia, Geographies of Children and Youth, Child Labor

**Linda Longmire**, Ph.D. (CUNY) Global Studies, International Politics, European Politics, Women's Studies

**Jean-Paul Rodrigue**, Ph.D. (University of Montreal) Transport Geography, Global Economy, East and Southeast Asia



### Contact Us

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# Geographic Information Systems (GIS)

**Department of Global Studies and Geography  
Hofstra University**

Peter S. Kalikow School of Government, Public Policy, and International Affairs

Hofstra College of Liberal Arts and Sciences



*"Knowing where things are, and why, is essential to rational decision making."*  
- Jack Dangermond, ESRI

# What is GIS?

Geographic Information Systems (GIS) apply the power of mapping to digital data and computerized analysis. GIS is rooted in the discipline of geography: it takes spatial problems and questions and addresses them using digital maps.

**Example:** *Transportation — City planners use GIS to make neighborhoods more walkable.*

GIS skills allow students and professionals to question, visualize, and interpret data to understand spatial patterns, relationships, and trends in the world.

**Example:** *Health — New York City health professionals use GIS to understand the geographic correlation between air pollution and poverty by mapping respiratory health.*

The cartographic face of GIS resembles Google Maps, but it is more powerful for trained practitioners: GIS facilitates complex data analysis and modeling as well as custom visualizations such as those that appear in the New York Times and National Geographic Magazine.

**Example:** *Climate Change — Environmental researchers use GIS to combine many kinds of climate data to better understand the geographically uneven consequences of global climate change, from Hurricane Sandy to droughts in Australia.*

Everything is somewhere, and GIS uses location to show how different kinds of data are related.



## Key Courses in GIS:

GEOG 007 Fun with Maps & GIS

GEOG 060 Introduction to GIS

GEOG 151 Directed Study/Student Research

GEOG 159 Cartographic Design

GEOG 160 Intermediate GIS

GEOG 162 Remote Sensing

GEOG 170 Advanced GIS

GEOG 190 Internship

# GIS Majors & Minors

The Department of Global Studies and Geography offers several majors and minors that include GIS training. Many students major in both GIS and a related field.

## Bachelor of Arts (BA) in Geography with a concentration in GIS

The BA in Geography with a concentration in GIS provides geography majors with a broad understanding of geographic processes combined with technical training in geographic data management, analysis, and communication. Students pursuing this concentration can take a variety of related classes in disciplines such as computer science, engineering, and journalism. This flexibility makes the program a desirable double major for students in a variety of disciplines.

## Bachelor of Science (BS) in GIS

The BS in GIS major is an interdisciplinary course of study centered in geography that emphasizes scientific and technological training in geographic data management, analysis, and communication. Students can double-major with other BS majors such as geology, biology, and engineering thereby adding GIS training to their work in these fields.

## Minor in Geography, GIS

Students completing the Minor in Geography, GIS learn the fundamentals of geographic data management, analysis, and communication without the time required for a major in GIS. This minor is open to all bachelor's-level Hofstra students including BA, BBA, and BS majors.

## Minor in Computer Science & GIS

Students completing the Minor in Computer Science and GIS learn the fundamentals of coding and computer science as well as the basic foundations of geographic data management, analysis, and communication. This minor is open to all bachelor's-level Hofstra students including BA, BBA, and BS majors.

# Careers that use GIS

GIS is considered a high-growth industry that has generated over 330,000 new geo-professional jobs in the last ten years. Federal government sources project 35% future annual growth rate in GIS/geospatial technology.

## Careers that use GIS

- ◆ Mobile App/Web Developer
- ◆ Public Health Researcher
- ◆ Public Policy
- ◆ Civil Engineer
- ◆ Marketing
- ◆ Cartographer
- ◆ Data Journalist
- ◆ Tourism Consultant
- ◆ Logistics Management
- ◆ Graphic Designer
- ◆ Environmental Planner
- ◆ Demographic Researcher
- ◆ Environmental Planner
- ◆ Climatologist
- ◆ Data Scientist
- ◆ Emergency Response
- ◆ GIS Specialist
- ◆ Urban Planner
- ◆ Real Estate
- ◆ Law Enforcement
- ◆ Military Intelligence

Our undergraduate GIS majors provide excellent grounding for subsequent graduate study in a wide variety of fields. GIS professionals' undergraduate degrees are almost always based in Geography departments.

# Employers who use GIS skills

**Companies:** Google, Apple, Garmin, Axiom, Citibank, Lyft, Zillow, ESRI (GIS Software), Navteq, Digital Globe, Rand McNally

**Media:** New York Times, Facebook, Washington Post, Vox, Gizmodo, Snapchat

**Government agencies:** EPA, NASA, HUD, NOAA, DoJ, State, DoD, Census, U.S. Geological Survey, DoT, MTA, NYC Planning, Fire, Police, Housing

**Organizations:** United Nations, National Geographic, World Bank, The Nature Conservancy, Ushahidi, Community NGOs