

## THE MS IN GISCIENCE PROGRAM AT SAN FRANCISCO STATE UNIVERSITY

builds on a philosophy of: integrating fieldwork with lab work...

... connecting students with Bay Area agencies...

... and a highly applied focus aimed at addressing environmental issues.

Program faculty bring together many years of expertise in geographic information science research, from integration of field GPS and geomatic data, environmental analysis, remote sensing of urban and biogeographic systems, to community-based mapping, as well as strong connections to Bay Area agencies and international NGOs. The program also benefits from a close association with SFSU's Institute for Geographic Information Science (IGISc), a CSU Specialty Center.



### CORE GIScience FACULTY:

Leonhard Blesius  
remote sensing, geomorphological hazards:  
lblesius@sfsu.edu

Jerry Davis  
GIS for environmental and surface modeling,  
GPS and survey field methods: jerry@sfsu.edu

Ellen Hines  
GIS/remote sensing, resource management,  
marine/coastal areas:  
ehines@sfsu.edu

XiaoHang Liu  
GIS, socio-economic, urban remote sensing:  
xhliu@sfsu.edu

### Additional Faculty Specialties:

Tendai Chitewere  
urban agriculture, sustainable community,  
environmental justice

Courtney Donovan  
health geography, gender geography

Qian Guo  
regional geography, cultural geography, China

Jason Henderson  
urban transportation, land use planning,  
urban politics

Barbara Holzman  
biogeography, resource management,  
environmental studies

Andrew Oliphant  
biometeorology, microclimatology,  
surface-atmosphere interactions

Nancy Wilkinson  
water resources, environmental history

**For more information, see the  
Geography & Environment website:  
<http://geog.sfsu.edu>**

# Master of Science Geographic Information Science

at San Francisco  
State University

GIS  
Remote Sensing  
Cartography  
GPS  
Spatial Analysis



Department of Geography & Environment  
1600 Holloway Avenue  
San Francisco, CA 94132

# Master of Science in Geographic Information Science at San Francisco State University

The Master of Science in Geographic Information Science (GIScience) program prepares graduate students for advanced careers in a wide range of geospatial information research and applications. GIScience is a term which encompasses the development, use, and applications of geographic information systems (GIS), remote sensing, global positioning systems (GPS), cartography, and spatial statistics.

A student completing this masters program will be prepared to take on advanced technical and leadership roles in environmental and resource agencies, NGOs and firms employing GIS, remote sensing and other geospatial technologies. The San Francisco Bay Area provides many internship and career opportunities for local, regional and international work.



## The MS in GIScience Program

The program requirements consist of: core courses in the scope of GIScience and research methods; three to four specific methods courses; one of a selection of seminars where you'll apply GIScience methods to geographic research questions; culminating in a thesis or research project. Selected courses in Biology, Computer Science, Geography, Geology and Urban Studies may be applied on advisement.

### Admission to the Program

For admission to the graduate program, a student must meet the general university requirements as stated in the Bulletin. An applicant must have a baccalaureate degree with a GPA or 3.25 or better in Geography or a related discipline, with emphasis or experience in spatial data analysis, and have earned a grade of B or better in Geog 603 (Intro to GIS), or equivalent.

## Courses



### CORE

- GEOG 705: Geographical Analysis
- GEOG 801: Scope & Methods of Geography
- GEOG 815: Seminar in GIScience
- GEOG 896 or 789: Directed Readings or Internship

### Three to four of the following:

- GEOG 610: Remote Sensing of the Environment I
- GEOG 711: Remote Sensing of the Environment II
- GEOG 720: Geographic Information Systems
- GEOG 721: GIS for Environmental Analysis

### Selected substitute courses on advisement:

- CSC 667: Internet Application Design
- CSC 675: Intro to Database Systems
- GEOG 606: Cartography
- GEOG 625: Programming for GIScience
- GEOG 629: Coastal & Marine Applications of GIS
- GEOG 642: Watershed Assessment
- GEOG 657: Natural Resource Management
- GEOG 702: Field Methods in Physical Geography
- GEOL 702: Quantitative Methods in Geosciences
- GEOG 899: Special Study

### One of the following seminars:

- GEOG 751: Environmental Management
- GEOG 810: Seminar in Physical Geography (Biogeography, Climatology, or Geomorphology)
- GEOG 820: Seminar in Human & Social Geography
- GEOG 832: Seminar in Urban Geography
- GEOG 858: Seminar in Environmental and Land Use Planning

### Culminating Experience, one of the following:

- GEOG 895: Research Project and Exam
- GEOG 898: Master's Thesis and Defense

*Minimum total semester units: 30-34*

