

Douglas O. Fuller Professor of Geography (Ph.D. 1994, University of Maryland)

Dr. Fuller specializes in optical remote sensing, GIS, land-cover change, and human-environment interactions mainly in tropical areas. He uses imagery from weather and other satellites to examine climatic change, natural hazards, patterns of biodiversity, and habitat loss.

J. Miguel Kanai Assistant Professor of Geography (Ph.D. 2008, UCLA)

Dr. Kanai' s research explores how intertwined processes of urbanization and globalization shape contemporary social life. With a focus on the territorial politics of redevelopment in globalized cities, his work engages postcolonial urban theory, the spatiality of inequality, as well as regional, city, and neighborhood planning, and the place of the middle classes in the contemporary city.

Shouraseni Sen Roy Associate Professor of Geography (Ph.D. 2005, Arizona State University)

Dr. Sen Roy conducts research in climatology and specializes in the monsoonal rainfall patterns of the Indian subcontinent. Her specialty also includes GIS, spatial analysis, and interpolation of meteorological data. She uses advanced spatial analysis techniques to examine long-term patterns of different climate phenomena.

Ira M. Sheskin Professor of Geography, Department Chair and Director of the Jewish Demography Project of the Sue and Leonard Miller Center for Contemporary Judaic Studies (Ph.D. 1977, The Ohio State University) Dr. Sheskin is a human geographer with teaching and research interests in ethnic geography, the Middle East, statistical analysis, survey research, data collection, and urban geography.

Justin Stoler Assistant Professor of Geography (Ph.D. 2012, SDSU & UCSB)

Dr. Stoler's research explores the geographic patterns of urban health disparities, particularly in the developing world, and environmental influences on social and behavioral epidemiology. He uses spatial modeling techniques to integrate household survey data, GIS layers of municipal infrastructure, and remote sensing data.

Diana Ter-Ghazaryan Lecturer (Ph.D. 2010, Florida International University)

Dr. Ter-Ghazaryan uses GIS mapping and visualization to investigate the changing landscape of Yerevan, Armenia. She is a human geographer with research interests in the former Soviet Union, urban geography, diaspora studies, and qualitative and critical applications of geospatial technology and GIS. Dr. Ter-Ghazaryan directs the Department's Certificate Programs in Geospatial Technology.

CONTACT INFORMATION Dr. Diana Ter-Ghazaryan Director of Geospatial Technology Certificate Programs Department of Geography University of Miami College of Arts & Sciences Coral Gables, Florida 33124-2221 (305) 284-6679 Email: terghazar@miami.edu





UNIVERSITY OF MIAMI COLLEGE of ARTS & SCIENCES

GRADUATE CERTIFICATE PROGRAM IN GEOSPATIAL TECHNOLOGY

http://miami.edu/GIS



PROGRAM DESCRIPTIC

Students who earn the Graduate GT Certificate will enhance employment prospects and/or advance their careers in geospatial technology, particularly in job settings that stress the use of GIS satellite remote sensing.

What is GEOSPATIAL TECHNOLOGY?

Geospatial technology (GT) involves a suite of computer-based approaches to manage relational databases, digital maps, data from global positioning systems, and satellite and aerial imagery to organize, display, and analyze spatial attribute data related to the environment, business, planning, health care, homeland security, infrastructure and other industries.

Who uses GT?

Geospatial technology is used extensively in the Federal government, the private sector, and international institutions such as the UN and the World Bank. Geospatial technology is also used in developing countries to optimize scarce resources for environmental management Private voluntary and non-governmental institutions that work on humanitarian and environmental issues have also developed significant capabilities with this technology.

What are the applications of GT?

All issues that involve monitoring of the earth's surface or near surface environment or processes, or involve exploitation of the earth's resources, can benefit from geospatial technology. Some examples are available on our websites miami.edu/geography and miami.edu/GIS.

What jobs are available in GT?

Many employers are looking for people with these skills. Starting salaries typically range from \$50-80K in the public sector (e.g., working for local governments) for experienced GIS analysts. Increasing numbers of job search engines (e.g., GIScafe, GISjobs, GIS Jobs Clearinghouse, etc.) post opportunities for geospatial professionals.

What internships placement programs are available through the program?

Students in the Certificate Program have been placed in internships with local organizations, and many have received subsequent employment. Organizations include: Miami-Dade County IT Department, FPL Fibernet, Alliance for Aging, City of Miami Beach, and UM Libraries, among others.

ADMISSION REQUIREMENTS

Students not already enrolled at the University of Miami are expected to have an undergraduate GPA of 2.5 or higher. The GRE is not required. Non-UM students should contact terghazar@miami. edu before applying.



GRADUATE CURRICULUM

The Certificate Program in Geospatial Technology (GT) is designed to benefit students who seek to enhance their skills in geospatial technologies, especially Geographic Information Systems (GIS) and satellite remote sensing. The certificate requires 15 credits, including three core courses and two or more electives. Students may receive credit toward the certificate or past coursework completed at UM or other accredited schools.

Core Courses

GEG 591 Introduction to GIS

GEG 593 Intermediate GIS

GEG 592 Environmental Remote Sensing

Electives

GEG 585 Advanced Cartography

GEG 545 Independent Study

GEG 535 Internship

GEG 580 Introduction to Quantitative Methods

GEG 594 GIS and Environmental Modeling

GEG 595 WebGIS

GEG 681 Advanced Spatial Statistics

Future Electives

GEG 596 GIScience for Water Resources Research

Miller School GIS in Public Health



Students will be exposed to standard software tools used in the industry including ArcGIS, ERDAS IMAGINE, and Idrisi, as well as image data from a range of optical and microwave orbiting satellites. A full suite of geospatial software is available in the GIS lab.