About the program
Medical geography, an important area of health research, applies concepts, methods, and technologies from geography to investigate health-related topics, focusing on spatial aspects of human and animal (livestock and wildlife) disease and health intervention.

The Department of Geography at the University of Florida offers a program in medical geography, complementing its existing strengths in human-environment studies and spatio-temporal analysis. There are strong ties on campus with the Emerging Pathogens Institute (EPI), the College of Veterinary Medicine, the College of Public Health & Health Professions, and the Center for African Studies, with many faculty jointly appointed. This program aims to develop skills in spatial thinking and hands-on experience for health applications. Students are prepared for positions in health agencies, non-governmental health organizations, medical research labs, and academic appointments at universities.

Medical geography courses

**Introductory level**
GEO 3452/6451 Introduction to Medical Geography
A board-based, comprehensive survey of geographic approaches in medical studies

**Intermediate level**
3420C/6425C GIS Models for Public Health
GIS An introduction of spatial models and GIS technologies for disease habits, disease diffusion, and health planning

GEO 3930 Peoples and Plagues
Introduction to emerging infectious diseases (EIDs) in the context of previous outbreaks, focusing on geography, origin and management response.

**Advanced level**
GEO 4938/6938 GIS for Spatial Epidemiology & Disease Ecology
An overview of several GIS methods for identifying spatial and space/time patterns of disease data (cluster analysis, space-time simulation) and ecological niche modeling for host, vector, and pathogen mapping

**GIS 4113/6104 Geospatial Networks**
Quantitative methods for analyzing networks in geography, epidemiology, social science, transportation, etc.

Department supporting courses
GIS 3043/5107C Foundation of GIS
GEO 3162C/6160 Intro Quantitative Analysis
GEO 4167C/6161 Inter Quantitative Analysis
GEO4938/6938 Advanced Methods in GIS
GIS 4115/6938 Applied Geostatistics
GIS 4037/5038C Digital Image Processing
GEO 6938 Environmental Biogeography
Core Faculty (Alphabetical order)

Dr. Jason Blackburn, Assistant Professor
Email: jkblackburn@ufl.edu
Website: http://geog.ufl.edu/people/faculty/blackburn/

Areas of Specialization
- Spatial Epidemiology
- GIS and Remote Sensing for health applications
- Models for predicting species’ distributions
- Space/time models for understanding disease patterns
- Wildlife movement behavior during outbreaks

Dr. Gregory Glass, Professor
Email: gglass@ufl.edu
Website: http://geog.ufl.edu/dr-gregory-glass/

Areas of Specialization
- Zoonotic diseases
- Vector-borne diseases
- Risk assessments
- Spatial models of risk

Dr. Liang Mao, Assistant Professor
Email: liangmao@ufl.edu
Website: http://geog.ufl.edu/people/faculty/mao/

Areas of Specialization
- Agent-based modeling for infectious diseases
- GIS/RS for environmental health
- Simulation of human health behavior
- GeoSocial network analysis

Dr. Sadie Ryan, Assistant Professor
Email: sjryan@ufl.edu
Website: http://sadieryan.weebly.com

Areas of Specialization
- Ecology at the human interface
- Conservation and sustainability
- Wildlife management
- Landscape disease ecology
- Vector-borne diseases (dengue and malaria)

Facilities

GIS/Remote Sensing laboratories
Turlington 3018 and Turlington 3006 are our primary computer labs where all remote sensing, cartography and GIS related classes are taught.

Spatial Epidemiology & Ecology Research Laboratory (SEER Lab)
The SEER Lab is an interdisciplinary research laboratory jointly housed in the Emerging Pathogens Institute (EPI) and the Department of Geography at the University of Florida. Visit www.seerlab.org for more information.