

To learn more
about GIS at
Buffalo State,
please visit the
Geography &
Planning
Department
website or the
GIS Tech Hub
website

gistechhub.buffalostate.edu

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We're on the web!
geography.buffalostate.edu

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BUFFALO STATE
The State University of New York

GIS Courses at SUNY Buffalo State

Spring 2018

GEG 325 MAPS AND MAPMAKING USING GIS
3 credits
Prerequisites: None

Maps as essential form of communication. Geographic information systems (GIS) tools for creating digital and hardcopy maps. Spatial thinking, concepts, principals and methods of mapmaking; map development and display using technology.

Tuesday and Thursday, 4:30-5:45 PM
Instructor: Mary Perrelli

GEG 425 FUNDAMENTALS OF GIS
3 credits
Prerequisites: GEG/PLN 325.

Principles and methods of spatial data capture, automation, models and structures of spatial databases, spatial analysis, visualization, and map display in Geographic information systems (GIS) environment. Fundamentals of spatial analytical methods including spatial database query, location and geographic coordinate concepts, spatial geocoding, buffering, map overlay, and spatial modeling.

Tuesday and Thursday, 3:05-4:20 PM
Instructor: Tao Tang

GEG 428 ENVIRONMENTAL ASSESSMENT AND PLANNING APPLICATIONS IN GIS
3 credits
Prerequisite: GEG 425 or equivalent.

Advanced concepts of GIS with a focus on spatial analytical applications in GIS for environmental assessment and planning. GIS theories and software implementations are presented through lecture and hands-on practice to solve real world environmental and planning problems.

Tuesday and Thursday, 10:50 AM-12:05 PM
Instructor: Tao Tang

GEG 429 ADVANCED TOPICS IN GIS
3 credits
Prerequisites: GEG 425 or equivalent course with permission of instructor.

Builds from the topics covered in GEG 425 Fundamentals of GIS, focusing more on digital representation of the human and physical environment, including location referencing from a human perspective, database design, data quality issues (how to identify and document errors), spatial statistical analysis using GIS, the fourth dimension (time) in GIS, and understanding spatial analysis algorithms and models. Introduces programming in a GIS environment.

Wednesday, 4:30-7:10 PM
Instructor: Wende Mix

GEG 584 GEOSPATIAL PROGRAMMING
3 credits
Prerequisites: programming experience required

This course provides an introduction to Python programming focusing on the development of Python script and custom tools for processing and analysis of geospatial data. Topics covered include automating geoprocessing workflows, creating custom analysis tool, and customizing user interfaces.

Monday, 5:30 PM –6:40 PM (HYBRID)