



# Geographic Information Science (GISc)

## Advanced Certificate

(17-20 Credits)

The Advanced Certificate in Geographic Information Science (GISc) consists of 17-20 credits of graduate-level coursework, and builds on the strengths of Lehman's Masters of Science Program in GISc (MS-GISc). This Certificate is designed to attract and prepare professionals in the New York City metropolitan region and beyond who work in the various fields involving spatial information, such as urban planning, environmental management, public health, engineering, and sustainable development, for new or augmented careers incorporating GISc. It is intended to give the students the opportunity to develop or upgrade their skills and knowledge of GISc especially as applied to their particular fields. The Advanced GISc Certificate Program courses also can be applied toward the MS-GISc degree, provided the student is accepted into the program and the courses received a "B" or better grade. The Lehman GISc Program emphasizes "real-world" applications of geotechnologies and geospatial analysis to solve problems and improve conditions, using New York City as a "living laboratory." Lehman also developed an Internship Program in GISc, allowing qualified students to earn credits while working in GISc positions.

### ADMISSIONS REQUIREMENTS

- Official transcripts from **all** post-secondary institutions attended.
  - Possess a bachelor's degree (or its equivalent) at minimum, from an accredited college or university, with Grade Point Average of 3.0 or better
- Submit two (2) letters of recommendation
- Resume or CV
- A personal essay or statement about your interest in GISc and the Advanced GISc Certificate Program at Lehman College

### CURRICULUM

<b>Required Courses (8 credits):</b>		<b>Credits</b>
GEP 605	Special Topics in Geographic Information Systems	4
GEP 690	Workshop in Geographic Information Science (GISc) Research	4
<b>Elective Courses (9-12 credits):</b>		<b>Credits</b>
GEP 504	Basic Mapping Applications and Analysis	3
GEP 505	Principles of Geographic Information Science	3
GEP 602	Biogeography and GISc	4
GEP 606	Raster Analysis	3
GEP 610	Spatial Analysis of Urban Health	3

<b>Elective Courses Continued:</b>		<b>Credits</b>
GEP 620	Demography and Population Geography with GISc	3
GEP 621	Principles and Applications in Remote Sensing	4
GEP 630	Geostatistics and Spatial Analytical Concepts	3
GEP 631	Advanced Remote Sensing	4
GEP 632	Environmental Health and Geographic Information Sciences (GISc)	3
GEP 635	Natural Hazards and Risk Analysis with GIS	4
GEP 640	Urban Geography and Geographic Information Science (GISc)	3
GEP 645	Water Resources, Hydrology, and GISc Analysis	4
GEP 650	Topics in Regional Geography and Applied Analysis	3
GEP 660	Geovisualization and Analytical Cartography	4
GEP 662	Introduction to Programming for GISc	3
GEP 664	Spatial Database Management	3
GEP 670	Seminar in GISc Internship	4
GEP 675	Data Acquisition and Integration Methods for GIS Analysis	3
GEP 680	Emerging Issues and Methods in Geographic Information Science	3
GEP 689	Methods Seminar in Geographic Information Science (GISc)	3
GEP 691	Independent Study in GISc	2, 3, or 4

#### **Questions about the program?**

Prof. Elia Machado

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#### **Questions about admissions?**

The Office of Graduate Admissions

<https://www.lehman.edu/graduate-admissions/applying/>