



Master of Science in Geographic Information Science

Geographic Information Science (GISc) is a fast-growing computer technology field involving mapping and analysis of spatial data. Geographic Information System (GIS) enable us to assess, manage, and better understand issues with a spatial dimension such as climate change, environmental justice, disease epidemics, conservation and environmental degradation, crime, housing and real state, and natural hazards. Advanced GISc skills lead to careers in some of the fastest-growing projected fields by the US Department of Labor, and it is difficult to imagine a field that has not already been impacted by GISc. The MS-GISc Program prepares students to meet the demands and challenges of theoretical and applied research, planning, and management careers in the field of geospatial sciences, data science, and their applications in public health, environmental analysis and conservation, urban planning, and emergency management sectors, among others. Our graduates work in governmental agencies, private, and non-profit sectors.

The MS-GISc (PEAR Option) is recognized as a Professional Science Master's (PSM) Program by the National PSM Association.

Admissions Requirements

- Official transcripts from all post-secondary institutions attended
- Bachelor's degree or foreign equivalent from an accredited school
- Minimum gpa of 3.0
- Two letters of recommendation
- A 500-word essay outlining intellectual and academic interests, accomplishments, and career objectives
- Curriculum Vitae
- If educated in a country other than the U.S. review

<https://lehman.edu/admissions/graduate-admissions/international-students/>

FAST FACTS

\$470.00 per credit*

40 credits total

Can be
completed in as
little as 2 years

Classes
Offered
In-person
& Online

*NYS Resident Tuition

Degree Requirements

The curriculum of MS-GISc program is comprised of three key elements for a total of 40 credits to complete the degree:

- 4 core courses (14 credits)
- 5-6 electives (18 credits)
- 8-credit capstone research experience, with options for either a traditional Master's Thesis, or a combination of an applied research project and professional experience through an internship (PEAR option: Professional Experience and Applied Research)

Internship program

Lehman College has developed an Internship Program in GISc, allowing qualified students to earn credits while working in GISc positions, in preparation for careers in governmental agencies, private sector consulting firms, not-for-profit organizations, and research institutes. Additionally, students benefit from research opportunities through structured coursework and faculty lead research projects.

Course Requirements

Required Core Courses (14 credits)

Credits

GEP 505	Principles of Geographic Information Science	3
GEP 621	Principles and Applications of Remote Sensing	4
GEP 630	Geostatistics and Spatial Analytical Concepts	3
GEP 605	Special Topics in Geographic Information Systems: Environmental Modeling & Spatial Analysis	4

Capstone Experience Coursework

An 8-credit capstone experience, either the Thesis Option or the Professional Experience and Applied Research (PEAR) Option (PSM)

Traditional Master's Thesis Option (8 credits):

GEP 695	Thesis Research in GISc	8
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OR

PEAR Option (PSM) (8 credits):

GEP 690	Workshop in Geographic Information Science (GISc) Research	4
GEP 670	Seminar and Internship Program in Geography	4

Electives (18 credits)

Credits

GEP 504	Basic Mapping Science	3
GEP 602	Biogeography and GISc	4
GEP 606	Raster Analysis	3
GEP 610	Spatial Analysis of Urban Health	3
GEP 620	Demography and Population Geography with GISc	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 641	Digital Image Analysis	4
GEP 650	Topics in Regional Geography and Applied Analysis	3
GEP 660	Geovisualization and Analysis Cartography	4
GEP 662	Introduction to Programming for GISc	3
GEP 664	Spatial Database Management	3
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

Of the 18 elective credits required for the degree, up to 9 credits of courses may be taken in a cognate discipline, such as Public Health, Urban Planning, or Environmental Engineering, with permission of program advisor, and depending upon the student's career goals.

Questions about the program?

Prof. Elia Machado

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Questions about admissions?

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



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COLLEGE



Six Schools *Infinite Possibilities*

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