

Credit-Bearing Certificate Program

Certificate in Geographic Information Science (GISc)

Geographic Information Science (GISc) is a fast-growing computer technology field involving mapping and analysis of spatial data. Geographic Information Systems (GIS) enable us to assess and manage existing conditions and also help predict future conditions, ranging from monitoring disease occurrences, to endangered species preservation, to managing water supplies, to tracking real estate values, to crime solving.

GIS is used today in fields as diverse as law enforcement, marketing, economic development, public health administration, ecology, urban planning, real estate, government and education. GIS is an expanding field with good career opportunities. People with GIS skills can also be more marketable as managers and analysts in their own fields. A Certificate in GISc can be advantageous by itself or in augmenting a Master's, Bachelor's or Associate's Degree.

The Certificate in GISc consists of a sequence of 4 courses, equaling 14 credits, plus one 3-credit Geography elective course, for a total of 17 credits. Courses are offered in the evenings and some via e-mail. The courses can be taken for credit at either the undergraduate or graduate level, leading to the Certificate.

Note: These are credit-bearing courses, NOT Continuing Education courses, and you must file an application and be admitted to Lehman College as a non-matriculated student before you can register for these courses. To enter the Certificate Program, students must have completed 30 college credits with at least a 2.0 GPA (C average). To take graduate-level courses, students must have a Bachelor's degree with at least a 3.0 GPA (B average).

Required Coursework (17 credits)

- GEP 204 / GEP 504:** Basic Mapping: Applications and Analysis (3 credits)
GEP 205 / GEP 505: Principles of Geographic Information Science (GISc) (3 credits)
GEP 350 / GEP 605: Special Projects in GISc* (4 credits)
GEH 490 / GEP 690: Workshop in GISc (4 credits)
and a Geography elective (3 credits)

*Note: Recent topics in *Special Projects in GISc* included "Environmental Planning with GIS" and "Spatial Analytical Methods in GIS." Topics planned for the future are "GIS for Public Health" and "Using GIS in Ecology."

SPRING 2004

GEP 205/GEP 505: Principles of Geographic Information Science (GISc)
(4 hours, 3 credits) **Wednesdays, 6-9:20 p.m.** Dates: TBA

This course covers basic concepts and theories of Geographic Information Science (GISc), as well as provides hands-on experience with a GIS software package for computer mapping and data analysis. Through a series of lectures, GIS laboratory exercises, and the design of a GIS project, students are taught the variety of ways GIS can be used to solve real world problems in many different fields. Laboratory exercises will include simple database creation, generation of statistics, data analysis, and the production of thematic maps and charts. Demographic, socioeconomic, environmental, land use, and health data sets will be utilized in the lab exercises. Prerequisite: computer literacy recommended.

GEH 490/GEP 690: Workshop in Geographic Information Science (4 credits)
Schedule: TBA

This course is intended to provide the student with a solid grounding in research design and methodology by designing and conducting a GIS research project within the parameters of the student's field of interest or specialty. Projects are to be substantive and original research efforts conforming to generally acceptable professional geographical practices and techniques. Prerequisite: GEP 350/GEP 605 *or* departmental permission.

Elective:

GEP 351/GEP 621: Remote Sensing: Environmental and Resource Monitoring from Space
(4 credits) **Tuesdays and Thursdays, 6-8:30 p.m.**

For Additional Information

Visit our website at www.lehman.cuny.edu/geography for GISc Certificate Program information and "Frequently Asked Questions," including how to apply to the program. For further information about the GISc Program or any of the individual courses, contact Dr. Juliana Maantay at (718) 960-8574 or by e-mail at maantay@aol.com. For non-matriculated student applications, call (718) 960-8702 (Graduate Admissions) or (718) 960-8706 (Undergraduate Admissions) *after* speaking with Dr. Maantay. It is advisable to submit applications by January 5, 2004 for admission to spring 2004 courses. The spring semester begins January 29, 2004.