LEHMAN COLLEGE
OF THE
CITY UNIVERSITY OF NEW YORK

DEPARTMENT OF_EARTH, ENVIRONMENTAL, AND GEOSPATIAL SCIENCES

CURRICULUM CHANGE

1. **Type of Change:** Change in pre-requisites

2. **From:**

Department(s)	Earth, Environmental, and Geospatial Sciences (EEGS)
Career	[x] Undergraduate [ ] Graduate
Academic Level	[x] Regular [ ] Compensatory [ ] Developmental [ ] Remedial
Subject Area	Geographic Information Science
Course Prefix & Number	GEP 310
Course Title	Geography of Urban Health
Description	A geographical examination of urban health. Topics include the historical perspective of health, place, and society; mapping and measuring health and health impacts; the social and spatial patterning of health; the geography of health inequalities and disparities; health and social/spatial mobility; and the effects of urban segregation, overcrowding, and poverty on disease. Geographic Information Science will be used in the laboratory exercises to illustrate the theoretical concepts and to produce worked examples of health geography.
Pre/ Co Requisites	
Credits	3
Hours	4 (2 hours lecture, 2 hours lab)
Liberal Arts	[ ] Yes [x] No
Course Attribute (e.g. Writing Intensive, WAC, etc)	
General Education Component	__x_ Not Applicable ____ Required ____ English Composition ____ Mathematics ____ Science ____ Flexible

	____ World Cultures ____ US Experience in its Diversity ____ Creative Expression ____ Individual and Society ____ Scientific World

3. **To:**

Department(s)	Earth, Environmental, and Geospatial Sciences (EEGS)
Career	[x] Undergraduate [ ] Graduate
Academic Level	[x] Regular [ ] Compensatory [ ] Developmental [ ] Remedial
Subject Area	Geographic Information Science
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Pre/ Co Requisites	GEP 204 or GEP 205 or instructor's permission.
Credits	3
Hours	4 (2 hours lecture, 2 hours lab)
Liberal Arts	[ ] Yes [x] No
Course Attribute (e.g. Writing Intensive, WAC, etc)	
General Education Component	__x_ Not Applicable ____ Required ____ English Composition ____ Mathematics ____ Science ____ Flexible ____ World Cultures ____ US Experience in its Diversity ____ Creative Expression ____ Individual and Society

	____ Scientific World

4. **Rationale(Explain how this change will impact the learning outcomes of the department and Major/Program):**

The course was originally approved and offered without a pre-requisite. However, the course content requires a basic background knowledge of GISc, and students lacking that skill set have been at a disadvantage and not well-prepared for course material.

5. **Date of Departmental Approval:**

February 18, 2015

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DEPARTMENT OF EARTH, ENVIRONMENTAL, AND GEOSPATIAL SCIENCES

CURRICULUM CHANGE

1. **Type of change:** New Course

2.

Department(s)	Earth, Environmental, and Geospatial Sciences
Career	[x] Undergraduate [] Graduate
Academic Level	[x] Regular [ ] Compensatory [ ] Developmental [ ] Remedial
Subject Area	GEP – Physical Geography (Geographic Information Science - GISc)
Course Prefix & Number	GEP 330
Course Title	Spatial Statistics and Advanced Quantitative Methods in Geography
Description	A focus on geospatial statistics and the application of advanced quantitative techniques to real-world geographic problems. Concepts and application of exploratory spatial data analysis (ESDA), traditional statistics, and geospatial statistics within various software packages.
Pre/ Co Requisites	GEP 204 or GEP 205 or instructor's permission. An introductory course in descriptive statistics is recommended.
Credits	3
Hours	4 (2 hours, lecture; 2 hours, lab)
Liberal Arts	[ ] Yes [x] No
Course Attribute (e.g. Writing Intensive, WAC, etc)	
General Education Component	__x_ Not Applicable ____ Required ____ English Composition ____ Mathematics ____ Science ____ Flexible ____ World Cultures ____ US Experience in its Diversity ____ Creative Expression ____ Individual and Society ____ Scientific World

3. **Rationale:**
This course will be utilized as an elective for the Geography Major, Geography Minor, and GISc Certificate Program, as well as Environmental Science Major, and Health Science Majors. It will provide students with an introduction to geographic quantitative analysis techniques using a variety of software packages. The prerequisite will ensure that students have a sufficient background knowledge of GISc to succeed in the course.

4. **Learning Outcomes (by the end of the course students will be expected to):**

- Clearly present geospatial patterns of quantitative measurements through thematic and other types of symbolic mapping, using appropriate cartographic techniques;
- Identify and apply appropriate statistical methods to accompany maps and other graphical presentations of data in order to objectively determine the significance of geospatial and spatiotemporal patterns and associations;
- Know when and how to apply quantitative geospatial analysis for helping to solve the information needs that arise from real-world challenges, particularly from environmental and public health issues;
- Understand the limitations of geospatial analysis, especially the potential for different, conflicting, messages that depend on choice of mapping and analysis parameters;
- Present geospatial analyses through a written paper and/or an oral presentation that clearly and concisely expresses a problem, the methodology to address the problem, the analytical and graphical results, and finally to summarize and explain the meaning of results in plain language for a mixed audience.

5. **Date of Departmental Approval:**

February 18, 2015