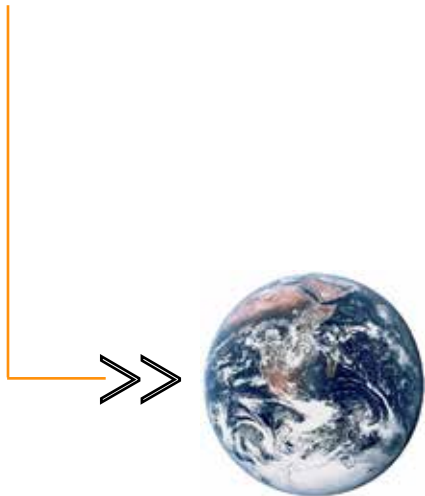


## Geospatial Information Science

: The broad domain of Geospatial Information Science includes both scholarly inquiry into various aspects of spatio-temporal information as well as the application of GIS technology to attain solutions to real-world problems.



### Coordinator of the Certificate Program in Geospatial Information Science:

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### Participating Faculty:

R. Lathrop, Ecology, Evol. & Nat. Resources  
M. Meixler, Ecology, Evol. & Nat. Resources  
K. St. Martin, Geography  
L. Schneider, Geography  
D. Tulloch, Landscape Architecture  
L. Wiggins, Urban Planning & Policy Development

### More information on the Geospatial Information Science Graduate Certificate Program is available on-line at:

> [crssa.rutgers.edu/courses/gradcert.html](http://crssa.rutgers.edu/courses/gradcert.html)

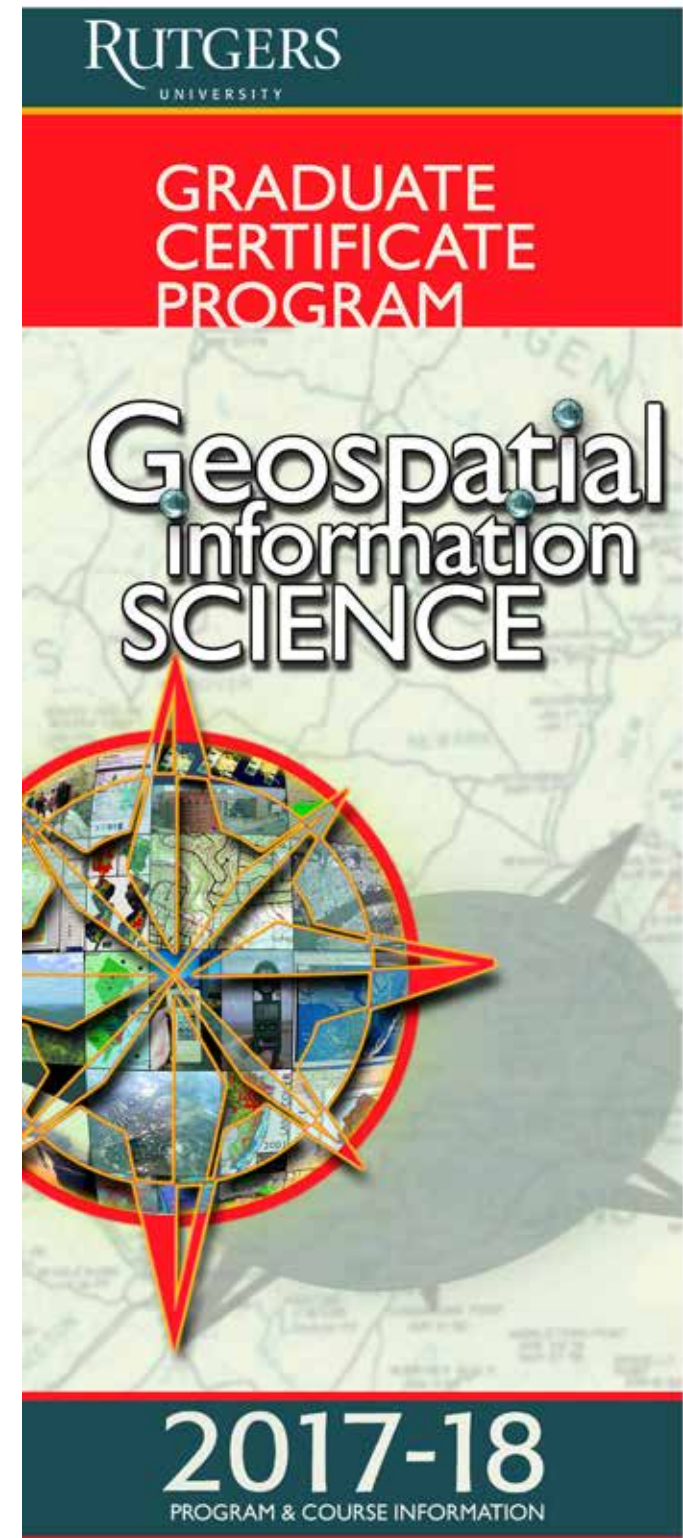
### Students may also be interested in pursuing the Geospatial Information Systems & Technology Program offered as part of Rutgers University's Master of Business and Science:

> <http://mbs.rutgers.edu/concentrations>



Scan QR code for program information

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# Graduate Certificate Program in Geospatial Information Science

## Three foci define research in geospatial information science:

- 1** One strand of research addresses the fundamental questions of the human conceptualization of space and how geospatial information is generated, located, recorded, modeled, manipulated and/or communicated through computer technology.
- 2** A second strand of research addresses how geospatial information science and technology can be applied to real world problems across a variety of physical, environmental, and social science disciplines.
- 3** A third strand of research investigates the societal implications of GIS technology on social interactions on a variety of levels, e.g., people to the environment, people-to-people, and people-to-government.

**The certificate program is designed to introduce students to these three strands of research, as well as provide the students hands-on training in the technology so that they may apply it in their disciplinary areas of research.**

## Coursework

### Prerequisites

Proficiency in computer programming, introductory cartography, geographic information systems, and basic statistics. If this proficiency is lacking, we recommend the appropriate undergraduate courses be taken:

- 01:198:111 Introduction to Computer Science (3)
- 01:450:355 Principles of Cartography (3)
- 01:450:321 Geographic Information Systems (3) or 11:372:362 Intermediate Environmental Geomatics (3)
- 01:960:401 Basic Statistics for Research (or equivalent) (3)
- 34:970:591 Introduction to GIS for Planning

### Basic Topics in Geospatial Information Science (6 cr.)

One course each in geographic information systems and remote sensing as prerequisite for the Certificate seminar:

- GIS:  
34:970:592 Topics in Geographic Information Science (Bloustein) (3)
- Remote Sensing/Digital Image Processing:  
16:450:615 Seminar in Remote Sensing (3)

### Prospective Students: How to apply

Students interested in geospatial information science and applying to Rutgers University for graduate study should contact the graduate program that most closely aligns with their education/career goals. Prospective students are also encouraged to contact individual faculty members for more specific information on their research programs.

### Present Students: How to enroll

Graduate students interested in completing the Graduate Certificate Program need to officially enroll in the program. For more information or to enroll in the graduate certificate program, contact Professor Richard Lathrop (contact information can be found on the back of the brochure).

The GIS graduate certificate is not a separate degree but is awarded in addition to a Master's or PhD student's major field of study.

### Certificate Seminar

16:455:501 Seminar in Geospatial Info. Science (3)

This seminar will address the three foci that define research in geospatial information science:

1) human conceptualization of space as it relates geospatial information; 2) applications of geospatial information science and technology; and 3) societal implications of GIS technology.

### Advanced Topics in Geospatial Information Science (3 cr.)

Once course from the list below:

- 16:194:601 Info. and Communication Processes (3)
  - 16:198:535 Pattern Recognition and Theory (3)
  - 16:198:541 Database Systems (3)
  - 16:215:520 Landscape Ecology (3)
  - 16:332:484/560 Introduction to Computer Graphics (3)
  - 16:375:551 Remote Sensing of the Ocean and Atmosphere (3)
  - 16:450:605 Seminar in Land Use Change (3)
  - 16:450:617 Remote Sensing of the Biosphere (3)
  - 16:712:615 Geophysical Data Analysis (3)
  - 17:610:557 Database Design & Management (3)
  - 22:198:603 Database Systems (3)
  - 34:970:650 Planning Support Systems (3)
- Alternative courses can be substituted with permission of the Certificate Director.