

## ENVIRONMENTAL GEOMATICS CERTIFICATE (19 CREDITS)

Name \_\_\_\_\_ Exp. date of Graduation \_\_\_\_\_

e-mail: \_\_\_\_\_

Environmental geomatics synthesizes a number of concepts and techniques, including remote sensing, spatial analysis, geographic information systems (GIS), and positioning systems (GPS), that are used to improve the planning and management of natural resource systems. These techniques include the development of complex spatial databases from a wide range of data sources and the application of this information to solve environmental problems. The Environmental Geomatics Certificate is designed to give students, regardless of major, an understanding of remote sensing, GIS and GPS technologies and their application in environmental resource monitoring and management.

The certificate is administered through the Department of Ecology, Evolution and Natural Resources. For further information, contact Dr. Richard Lathrop in the Environmental and Natural Resource Sciences Building, Room 129 [lathrop@crssa.rutgers.edu](mailto:lathrop@crssa.rutgers.edu) (732 932-1580).

For more information go to <http://www.crssa.rutgers.edu/courses/uegcp.html>.

Semester Taken:

\_\_\_\_\_ **11:372:232 Fundamentals of Environmental Geomatics w lab** – 4 Credits –  
No Prerequisites Offered Fall, M/W 4

\_\_\_\_\_ **11:372:362 Intermediate Environmental Geomatics** – 3 Credits –  
Prerequisites: 11:372:232 Offered Spring, M/Th 4

\_\_\_\_\_ **11:372:369 Analytical Methods for Environmental Geomatics** – 3 Credits –  
Prerequisites: 01:960:401 or equivalent Offered Spring, M/W 5

\_\_\_\_\_ **11:372:371 Air Photo Interpretation** - 3 Credits –  
No Prerequisites. Offered Fall, M/Th 3

\_\_\_\_\_ **01:960:401 Basic Statistics for Research** – 3 Credits – Or equivalent.  
(Listed under “Statistics”) Offered Fall

**AND ONE OF THE FOLLOWING:**

\_\_\_\_\_ **11:372:462 Advanced Environmental Geomatics** -3 Credits–  
Prerequisites: 11:372:362 and 11:372:369 or permission.  
Offered Spring, T/Th 4

\_\_\_\_\_ **11:372:474 Advanced Remote Sensing** – 3 Credits –  
Prerequisites: 11:372:371 or 01:450:407 and 11:372:369.  
Offered Spring, MW 6

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### Suggested Course Sequence

	Fall Semester	Spring Semester
2 <sup>nd</sup> Year	11:372:232 Fundamentals Env. Geomatics	01:960:401 Basic Statistics <sup>1</sup>
3 <sup>rd</sup> Year	11:372:371 Air Photo Interpretation <sup>3</sup> 11:372:322 Land Measurements <sup>4</sup>	11:372:362 Intermediate Env. Geomatics <sup>2</sup>
		11:372:369 Analytical Methods
4 <sup>th</sup> Year	11:372:371 Air Photo Interpretation <sup>3</sup>	11:372:474 Advanced Remote Sensing
		11:372:462 Advanced Env. Geomatics

1. 01:960:401 Basics Statistics for Research or equivalent can be taken any semester prior to 11:372:369 Analytical Methods.

2. **11:372:362 Intermediate Environmental Geomatics can be taken the 2<sup>nd</sup> or 3<sup>rd</sup> year spring.**

3. 11:372:371 Air Photo Interpretation can be taken either 3<sup>rd</sup> or 4<sup>th</sup> year.

4 11:372:322 Land Measurements Not required but highly suggested as it includes hands-on GPS instruction.

### Practical Experience

While not required, we strongly recommend that students acquire practical experience through geomatics-related internships, jobs, etc.