

## Geospatial Science (GSS)

The Geospatial Science program is part of the Marine and Atmospheric Sciences (MAS) graduate program.

**Graduate Program Director**

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**Certificate Program Director**

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**Web Address**

<http://www.stonybrook.edu/commcms/gss/>

**Degrees Awarded**

Advanced Graduate Certificate

**Application**

<https://graduateadmissions.stonybrook.edu/apply/>

## Geospatial Science

The Geospatial Science program supports the Geographical Information Systems (GIS) and Remote Sensing needs for a wide range of departments on the Stony Brook campuses. These tools are extensively used in the sciences (including geology, marine, environmental, anthropology, etc.), the social sciences (including sociology, political science, urban planning), in the corporate and non-profit world, public health, security, and disaster response. The program is design to give each student a firm foundation in Geospatial Science while allowing the flexibility to learn the tools needed for their chosen discipline.

The Advanced Graduate Geospatial Science (GSS) Certificate will allow graduate students and working professionals to advance their GIS knowledge and employment opportunities with an industry-recognized certificate. The program will require students to earn 15 credits in addition to holding a BA, BS, or graduate degree. The program courses will be offered in the traditional semester format and during summer sessions. The program offers fully online courses that are intended to allow full time students to remotely complete the certificate requirements in one year.

## Admission requirements of Geospatial Science Certificate

Admission to the Graduate Certificate in Geospatial Science is open to any student enrolled a graduate degree-granting program at Stony Brook University or to free-standing certificate students who have completed their bachelor's degree or higher from an accredited college or university who meet the admissions criteria.

For applicants already admitted to the university, admission involves completing a "Permission to Enroll in a Secondary Certificate" form. For admission to the free-standing Certificate Program in Geospatial Science, students are required to have earned a minimum or a bachelor's degree with a cumulative grade point average of 3.0 on a 4 point scale and the following:

- A. A letter of application stating the purpose of study
- B. A Graduate School application form
- C. An official transcript of undergraduate record culminating in a bachelor's degree and graduate degree transcript if applicable
- D. Two letters of recommendation from teaching supervisors and/or professors

The forms and additional information are available through the Marine and Atmospheric Sciences (MAS) graduate program office.

## Geospatial Science

The Geospatial Science program is an umbrella program that includes the graduate educational components of Geographical Information Systems (GIS) and Remote Sensing from many different departments across campus. The main teaching lab and the Geospatial Center is in Earth and Space Sciences with other GIS and remote teaching sensing labs in Marine Sciences, Anthropology, Geology, Engineering, and Public Health. The Geospatial Center supports education and research, and houses large format print capabilities for GIS and remote sensing projects.

## Requirements for the Geospatial Science Certificate

**Prerequisites:** All applicants are required to hold either a BA, BS degree, or graduate degree. Some basic knowledge of operating personal computers is necessary to complete the course work.

**Required Courses** or equivalent (9 credits):

GSS513 GIS Fundamentals I, 3cr or GEO513 or GSS 517 or MAR587

GSS525 GIS Fundamentals II, 3cr or GEO525

GSS526 GIS Project Management, 3cr

**Elective Courses** or equivalent (6 credits):

GSS 509 Digital Cartography, 3cr

GSS 523 Geodatabase and Design, 3cr or GEO 523

GSS 550 Applied Spatial Analysis, 3cr

GSS 554 Geospatial Science for the Coastal Zone, 3cr

GSS 555 GIS and Remote Sensing, 3cr or GEO 547 or MAR 558

GSS 570 Topics in Geospatial Science, 1-3cr

GSS 575 Geospatial Teaching Practicum, 0-3cr

GSS 587 Geospatial Research, 1-3cr

GSS 588 GIS Internship, 1-3cr

HPH 534 Spatial Analysis: Health Applications, 3cr

ANT 526 Environmental Analysis Using Remote Sensing and GIS, 3cr

EST 576 Geographic Information Systems in Education and Research, 3cr

No more than 6 credits used to satisfy another graduate degree can be applied to the certificate.

**Geospatial Science Faculty**

Faculty information for this program can be found at:

<http://www.stonybrook.edu/commcms/gss/people.html>

*NOTE: The course descriptions for this program can be found in the corresponding program PDF or at COURSE SEARCH.*