Geospatial Science (GSS)

The Geospatial Science program is part of the Sustainability Studies Program.

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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 designed 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 18 credits in addition to holding a BA, BS, or graduate degree. The program courses will be offered in the traditional semester format (both on campus and online) and during summer sessions. The flexible scheduling is intended to allow students to complete the certificate requirements quickly and at times that are convenient for the working profession.

**Admission requirements of Geospatial Science Certificate**

Admission to the Graduate Certificate in Geospatial Science is open to any student enrolled in 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

E. GRE Scores not required

The forms and additional information are available through the Sustainability Studies 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** (9 credits):

- **ANT526**       Environmental Analysis Using Remote Sensing and GIS, 3cr
- **EST576**       Geographic Information Systems in Education and Research, 3cr
- **GSS509**       Digital Cartography, 3cr
- **GSS523**       Geodatabase and Design, 3cr or GEO523
- **GSS550**       Applied Spatial Analysis, 3cr
- **GSS554**       Geospatial Science for the Coastal Zone, 3cr
- **GSS570**       Topics in Geospatial Science, 1-3cr
- **GSS575**       Geospatial Teaching Practicum, 0-3cr
- **GSS587**       Geospatial Research, 1-3cr
- **GSS588**       GIS Internship, 1-3cr
- **HPH534**       Spatial Analysis: Health Applications, 3cr

Only one of the following will count towards Certificate

- **GEO547**       Remote Sensing in Geosciences, 3cr
- **GSS555**       GIS and Remote Sensing, 3cr
- **MAR558**       Remote Sensing, 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.*