Spatial Analysis Graduate Certificate Program Course Requirements

The Spatial Analysis Certificate program consists of 12 credit hours.

Spatial Analysis Program Requirements

- Selection of a primary focus area from among two areas: Applied Remote Sensing or GIS & Spatial Analysis
- Completion of two courses (normally 6 credits) within the chosen focus area, at least one of which is from a list of "foundation courses" in that area
- Consultation between student and advisor regarding selection of remaining additional courses, for a total of 12 credits, which should aim to achieve one of three objectives: a) adding a secondary focus by taking two courses within a second focus area; b) increasing breadth by selecting courses from two of the other focus areas, or c) increasing depth by taking an additional course in the primary focus area; one of the remaining courses should be in another area.
- No more than one course may be taken from among the related information science courses listed below
- At least one course must be taken from a unit other than the student's home unit.
- Students may petition replace 3 of the additional credits with a practicum. The practicum may be in the form of on-campus or off-campus work, paid or unpaid, that makes substantial use of the GIS, spatial analysis, and/or remote sensing methods that are the focus of the program.

APPLIED REMOTE SENSING
Remote sensing core courses:

- CLIMATE 532: Radiative Transfer (3 credits)
- EAS 541: Remote Sensing of Environment (4 credits)

Additional remote sensing courses:

- EECS 430/CLIMATE 431: Wireless Link Design (4 credits)
- CLIMATE 585/SPACE 585: Introduction to Remote Sensing and Inverse Theory (3 credits)

GEOGRAPHIC INFORMATION SYSTEMS & Spatial Analysis
GIS core courses (only one of these two courses can be counted):

- EAS 531: Principles of Geographic Information Systems (4 credits)
- URP 520: Introduction to Geographic Information Systems (3 credits)

Additional GIS courses:

- URP 521: Intermediate Geographic Information Systems (3 credits)
- EAS 540: GIS and Natural Resource Applications (2 credits)
- EAS 534: GIS and Landscape Modeling (3 credits)
- EAS 543: Environmental Spatial Data Analysis (3 credits)
- BIOSTAT 696: Spatial Statistics (3 credits)

RELATED INFORMATION SCIENCE
Students may count one of the following towards the Certificate:

- CMPLXSYS 530: Computer Modeling of Complex Systems (3 credits)
- SI 664: Database Application Design (3 credits)
- SI 649/EECS 548: Information Visualization (3 credits)