GRADUATE CERTIFICATE IN GEOGRAPHIC INFORMATION SCIENCE (GIS)

GIS technologies are applied to wide-ranging fields with interests in spatially distributed information such as transportation, environmental/resource management, marketing, facility management, healthcare delivery, agriculture and planning. In addition, the synergistic linkages between GIS and Remote Sensing (RS) technologies are increasing. The need for qualified individuals in these fields is growing rapidly. The GIS certificate program has been designed to meet this demand.

The Office of the President has approved this program, and it will appear on the official Texas A&M University transcript. There will also be a paper certificate. This certificate is administered through the department of Ecosystem Science and Management and taught jointly with Geography.

Certificate guidelines

- Students must be admitted to Texas A&M University as a G6 (non-degree seeking), G7 (master's) or G8 (doctoral) student. (See the TAMU admissions website at: admissions.tamu.edu.)
- The program consists of 12 credit hours, including three foundation courses and one elective. Students must choose courses from the approved list on page 2. Students who have previously taken an introductory GIS course can petition to substitute one of the specialized GIS courses.
- Students must maintain a 3.0 GPA for all applicable course work.
- Students should apply for the certificate in the first semester of beginning the GIS Certificate (Exceptions may apply).
- Classes taken for the RS certificate cannot be used in lieu of courses required for GIS certificate or vice versa.
- Substitutions/exceptions: Must be submitted to the GIS/RS Graduate Certificate Committee for consideration and acceptance. The letter of petition must include:
  - GIS or RS classes taken or in progress;
  - a syllabus for each course to be considered for substitution;
  - the corresponding required course for which substitution is requested; and
  - detailed work experience in applicable field

  For a petition to be considered, it must be completed and returned to Madysen Rydeen, mrydeen@tamu.edu, once the course has been completed, prior to the graduation semester.

Certificate application

To add the certificate to your curriculum, you must contact Amanda Ray, amanda.ray@tamu.edu, 979-862-6470 for instructions on how to add the certificate to your curriculum. This should occur as early as the first semester you take a GIS course, and as late as the 5th class day of the semester in which you plan to graduate.

If you have any questions, please contact:

- Amanda Ray, ESSM graduate programs advisor, at 979.862.6470 or amanda.ray@tamu.edu,

Other points of contact (for course specific information, such as substitutions):

- Dr. Srinivasan, The Spatial Science Lab (SSL) Director in the Department of Ecosystem Science & Management at r-srinivasan@tamu.edu, or
- The GIS&T Director in the Department of Geography at 979.845.5291 or klein@tamu.edu.

Approved course options

Introductory level (one of the following is required) ..... **3 hours**

- ESSM 651/BAEN 651 – Geographic Information Systems
- GEOG 660 – Applications in GIS
- PLAN 625 – Introductory GIS in Landscape and Urban Planning
- MARS 625 GIS Use in Coastal Resource

Intermediate level (two of three are required) ..... **6 hours**

- ESSM 652/BAEN 652 – Advanced Topics in Geographic Information Systems
- GEOG 665 – GIS-based Spatial Analysis and Modeling
- PLAN 626 – Advanced GIS in Landscape and Urban Planning

Specialized GIS courses (one of the following is required) ..... **3 hours**

- CVEN 658 - Civil Engineering Applications of GIS
- ENTO 625/GEOG 625 – Landscape Ecology
- ESSM 660 – Landscape Analysis and Modeling
- ESSM 663 – Applied Spatial Statistics
- ESSM 665 – Computer Programming for Natural Resource Applications
- GEOG 662 - GIS in Land & Property Management
- GEOG 676 – GIS Programming
- GEOG 678 – WebGIS
- MARS 626 – Advanced GIS for Coastal Systems
- PLAN 612 – Introduction to Transportation Planning