

GEOGRAPHIC INFORMATION SCIENCE GRADUATE CERTIFICATE

Banner Code: SC-CERG-GISC

Ruixin Yang, Graduate Coordinator

2409 Exploratory Hall
Fairfax Campus

Phone: 703-993-3615

Email: ggs@gmu.edu

Website: cos.gmu.edu/ggs/academic-programs/graduate-certificate-in-geographic-information-sciences/

This graduate certificate prepares students for employment in federal, state, and local government positions that require GIS skills. The certificate has been found suitable for the needs of business and industry, including those corporations that serve as contractors to governments in the United States and overseas.

The Geographic Information Science Graduate Certificate may be pursued on a part-time or full-time basis.

Admissions & Policies

Admissions

University-wide admissions policies can be found in the Graduate Admissions Policies (<http://catalog.gmu.edu/admissions/graduate-policies/>) section of this catalog.

To apply for this program, please complete the George Mason University Admissions Application (<https://www2.gmu.edu/admissions-aid/apply-now/>).

Applicants to this certificate program must submit a current résumé. GRE scores and letters of recommendation are not required but will strengthen an application, if available. TOEFL scores are required of all international applicants.

All applicants should have a working knowledge of, or prior education or training in, computer technology. Knowledge of GIS, remote sensing technology, and cartography are preferred. Students from any discipline are welcome to apply.

Policies

For policies governing all graduate certificates, see AP.6.8 Requirements for Graduate Certificates (<http://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-8>)

Premium Tuition Rate

This professional certificate program charges students at a differential (premium) tuition rate. This rate applies to all students who enroll in this certificate program, regardless of in-state or out-of-state status. The differential tuition will be used to fund continuing improvements in the departmental computational facilities used to support the certificate program.

Requirements

Certificate Requirements

Total credits: 15

This certificate may be pursued on a full-or part-time basis.

Students should refer to the Admissions & Policies tab for specific policies related to this program.

Core Courses

Code	Title	Credits
GGG 553	Geographic Information Systems	3
GGG 563	Advanced Geographic Information Systems	3
Total Credits		6

Electives

Code	Title	Credits
Select 9 credits from the following:		9
GGG 505	Transportation Geography	
GGG 531	Land-Use Modeling Techniques and Applications	
GGG 551	Thematic Cartography	
GGG 560	Quantitative Methods	
GGG 579	Remote Sensing	
GGG 605	Systematic Applications of GIS	
GGG 631	Spatial Agent-Based Models of Human-Environment Interactions	
GGG 650	Introduction to GIS Algorithms and Programming	
GGG 653	Geographic Information Analysis	
GGG 655	Map Design	
GGG 658	Terrain Mapping	
GGG 660	Automated Cartography	
GGG 661	Map Projections and Coordinate Systems	
GGG 664	Spatial Data Structures	
GGG 671	Algorithms and Modeling in GIS	
GGG 675	Location Science	
GGG 692	Web-based Geographic Information Systems	
GGG 772	Cloud Geographic Information Systems	
GGG 773	Interoperability of Geographic Information Systems	
GGG 787	Scientific Data Mining for Geoinformatics	
Total Credits		9