

# GEOSPATIAL INTELLIGENCE GRADUATE CERTIFICATE

**Banner Code:** SC-CERG-GI

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This graduate certificate is for persons employed in geospatial intelligence applications (i.e., federal agency and/ or corporate or association personnel) or those interested in entering this field. Our program offers fundamental knowledge on geospatial intelligence and the ability to apply this knowledge to a diverse range of constantly evolving geospatial intelligence situations. This graduate certificate has been accredited by the United States Geospatial Intelligence Foundation.

The majority of courses required for this certificate are also available online. For more information visit Mason Online (<http://masononline.gmu.edu/>).

The graduate certificate in geospatial intelligence may be pursued on a part-time or full-time basis, and qualifies for Title IV Federal Financial Aid.

## 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.

Applicants to this graduate certificate program should hold a BA or BS degree in a discipline related to the certificate's theme from an institution of higher education accredited by a Mason-recognized U.S. institutional accrediting agency or international equivalent with a minimum GPA of 3.00. To apply, prospective students should complete the George Mason University Admissions Application (<https://www2.gmu.edu/admissions-aid/apply-now/>). In addition, applicants to this certificate program must submit a current résumé, and GRE scores. Letters of recommendation are not required but will considerably strengthen an application, if available. TOEFL scores are required of all international applicants.

Applicants should have undergraduate backgrounds that include courses in differential and integral calculus, and they should possess working knowledge of a computer programming language. Depending on the background of the individual student, the coordinator may recommend remedial or preparatory courses tailored to the student's needs.

### Policies

For policies governing all graduate programs, see AP.6 Graduate Policies (<http://catalog.gmu.edu/policies/academic/graduate-policies/>).

### 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.

### Transfer of Credit

Students may transfer no more than 3 credits into the certificate program with the approval of the academic director.

## Requirements

### Certificate Requirements

Total credits: 18

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

The mandatory core courses reflect the three key science emphases of this program: geospatial image analysis, spatial analysis, and information technology:

Code	Title	Credits
GG5 553	Geographic Information Systems	3
GG5 680	Earth Image Processing	3
GG5 684	Selected Topics in Geospatial Intelligence	3
GG5 685	Capstone Course in Geoinformatics	3
Select one from the following:		3
GG5 650	Introduction to GIS Algorithms and Programming	
GG5 664	Spatial Data Structures	
GG5 692	Web-based Geographic Information Systems	
Total Credits		15

### Elective

Code	Title	Credits
Select one additional elective course from the following:		3
GG5 563	Advanced Geographic Information Systems	
GG5 579	Remote Sensing	
GG5 631	Spatial Agent-Based Models of Human-Environment Interactions	
GG5 650	Introduction to GIS Algorithms and Programming	
GG5 658	Terrain Mapping	
GG5 664	Spatial Data Structures	
GG5 671	Algorithms and Modeling in GIS	
GG5 675	Location Science	
GG5 681	Social Media Analysis	
GG5 692	Web-based Geographic Information Systems	

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GGS 740	Hyperspectral Imaging Systems
GGS 772	Cloud Geographic Information Systems
GGS 787	Scientific Data Mining for Geoinformatics
Total Credits	3