Program Change Request

Date Submitted: 03/01/24 10:48 am

Viewing: SC-MS-GEOI : Geoinformatics and Geospatial Intelligence, MS

Last approved: 05/16/23 8:56 am

Last edit: 03/08/24 4:39 pm

Changes proposed by: jbazaz

Catalog Pages Using this Program

Geoinformatics and Geospatial Intelligence, MS

Are you completing this form on someone else's behalf?

No

Effective Catalog:	2024-2025
Program Level:	Graduate
Program Type:	Master's
Degree Type:	Master of Science

Title:

Geoinformatics and Geospatial Intelligence, MS

Banner Title:	Geoinformatics, MS
Registrar/OAPI Use Only – SCHEV Status	Approved
Registrar's Office Use Only – Program Start Term	
Registrar/OAPI Use Only – SCHEV Letter	
Registrar/OAPI Use Only – SACSCOC Status	

In Workflow

1. **GGS Chair**
2. **SC Curriculum Committee**
3. SC Assistant Dean
4. Assoc Provost-Graduate
5. Registrar-Programs

Approval Path

1. 03/15/24 11:34 am Nathan Burtch (nburtch): Approved for GGS Chair

History

1. Nov 9, 2017 by clmig-jwehrheim
2. Jan 23, 2019 by Dieter Pfoser (dpfoser)
3. Jan 29, 2021 by Nathan Burtch (nburtch)
4. Feb 23, 2021 by jriemen
5. Mar 11, 2021 by jriemen
6. Dec 2, 2021 by Nathan Burtch (nburtch)
7. May 17, 2022 by Tory Sarro (vsarro)
8. May 8, 2023 by Tory Sarro (vsarro)

9. May 16, 2023 by Tory Sarro (vsarro)

Concentration(s):

Registrar/IRR Use Only – Concentration CIP Code

College/School: College of Science

Department / Academic Unit: Geography & Geoinformation Science

Jointly Owned Program? No

Justification

What: Add GGS 631 to Computational Geoinformatics electives.
Why: This course fits and has of recent been offered more frequently. Adding it will reduce the amount of substitution paperwork needed.

What: Remove GGS 550 as a core course, reducing degree to 30 credits
Why: Our students of recent years have been much less in need of this style of introductory course, and much of the content they will learn is adaptable to other core courses such as GGS 553 and 579. More of our students are BAM (with geographic training) or otherwise are already familiar. For those that do not have a background, GGS 550 will remain as an elective course. The reduction to 30 credits (rather than add an elective) is intended to keep our program attractive and competitive, as other programs (such as UMD) are using a 30-credit, fully online setup.

What: Referring applicants to central admissions language and removing extraneous wording.
Why: To make the program more adaptable to changes in university policies.

Total Credits Required: Total credits: 30 ~~33~~

Registrar's Office Use Only - Program Code: SC-MS-GEOI

Registrar/IRR Use Only – Program CIP Code

Admission Requirements:

Admissions

University-wide admissions policies can be found in the ~~in~~ Graduate Admissions Policies section of this catalog. ~~.~~ International students and students having earned international degrees should also refer to Admission of

International Students for additional requirements.

Eligibility ~~and Application Requirements~~

In addition to the university-wide requirements, applicants for this master's should hold a BA or BS degree in a discipline related to the program's theme from an institution of higher education accredited by a Mason-recognized U.S. institutional accrediting agency or international equivalent, including courses in differential and integral calculus. A working knowledge of a computer programming language is a plus.
When the background of an individual student does not meet the program's requirements, remedial or preparatory courses tailored to student's needs may be recommended.

~~A current résumé, two letters of recommendation, and a goals statement will be required. GRE scores are not required for admission into this program, but are encouraged if the student is seeking internal funding~~Application Requirements

To apply for this program, prospective students should submit ~~please complete~~ the George Mason University Admissions Application and its required supplemental documentation, two letters of recommendation, and a goals statement. ~~Application.~~
GRE scores are not required for admission into this program, but are encouraged if the student is seeking internal funding. ~~funding~~

Program-Specific Policies:

Policies

For policies governing all graduate programs, see AP.6 Graduate Policies.

Transferring Previous Graduate Credit into this Program

Previously earned and relevant graduate credits may be eligible for transfer into this program; details can be found in the Credit by Exam or Transfer section of this catalog.

Secondary Program Options

Students enrolled in this master's program have the option of adding a secondary graduate certificate program. Depending upon the secondary program chosen, many courses may be applicable to both the certificate and the master's. Before adding a secondary program, students are advised to carefully review AP.6.8 Requirements for Graduate Certificates and AP.6.9 Requirements for Master's Degrees. Faculty advisors should be contacted for further guidance and for graduate certificate program suggestions.

Degree Requirements:

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

Core Courses

~~GGS 550~~	~~Geospatial Science Fundamentals~~	~~3~~
GGS 553	Geographic Information Systems	3
GGS 579	Remote Sensing	3
GGS 664	Spatial Data Structures	3
GGS 684	Selected Topics in Geospatial Intelligence	3
GGS 685	Capstone Course in Geoinformatics	3
GGS 787	Scientific Data Mining for Geoinformatics	3
Total Credits		18

Thesis or Non-thesis Option

Students choose the culminating experience of either a thesis or a project and a comprehensive exam (either must total 3 credits). The same graduate-level quality will be expected from either option: 3

Thesis Option

GGS 799	Thesis (3 credits)

Non-thesis Option

GGS 700	Comprehensive Exam (1 credit)
GGS 798	Master's Research Project (2 credits)

Total Credits 3

Electives

Select three courses from the groupings below, with no more than two courses from a single group (courses must be taken from at least two groups): 1 9

Image Analysis:

GGS 562	Photogrammetry
GGS 622	Drone Remote Sensing
GGS 626	Physical Fundamentals of Remote Sensing
GGS 629	Remote Sensing of the Environment and Earth System
GGS 680	Earth Image Processing
GGS 740	Hyperspectral Imaging Systems
GGS 760	Advanced Topics in Remote Sensing
GGS 840	Hyperspectral Imaging Applications

Geographic Information Science:

GGS 550	Geospatial Science Fundamentals
GGS 563	Advanced Geographic Information Systems
GGS 653	GIS Analysis and Application
GGS 675	Location Science
GGS 791	Advanced Spatial Statistics

Computational Geoinformatics:

GGS 631	Spatial Agent-Based Models of Human-Environment Interactions
GGS 650	Introduction to GIS Algorithms and Programming
GGS 681	Social Media Analysis
GGS 692	Web-based Geographic Information Systems
GGS 754	Earth Science Data and Advanced Data Analysis
GGS 773	Interoperability of Geographic Information Systems
GGS 788	Deep Learning for Geoinformation
Total Credits	9

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Course selections must be approved by the program coordinator.

Retroactive Requirements Updates:

Plan of Study:

Program Outcomes

Additional Program Information

This information is required by the Office of Accreditation and Program Integrity.

Courses offered via distance (if applicable):

What is the primary delivery format for the program? Both Face-to-Face and Distance

Does any portion of this program occur off-campus?

No

Are you working with a vendor / other collaborators to offer your program?

No

Related Departments

Could this program prepare students for any type of professional licensure, in Virginia or elsewhere?

No

Are you adding or removing a licensure component?

No

Additional SCHEV & SACSCOC Information

Is this change a simple retitling of an existing program, with no other changes, to any existing program content, curriculum requirements, etc?

No

Does this change represent a repackaging of content in an existing approved degree/certificate program at the same instructional level (i.e., baccalaureate, master's, or doctoral)?

No

Percentage of total credits containing new course content. ("New course content" is defined by SACSCOC as content that is not currently included in an existing approved degree/certificate program at the same instructiona level. Do not exclude gen ed credits in calculations for undergraduate programs.)

0%-24%

Does this change include the addition of a distance education or face-to-face method of delivery for this program?

No

Does this change include the addition of a course/credit-based competency-based education delivery option?

No

Will any additional equipment/facilities be needed?

No

Will any additional faculty be required?

No

Will any additional financial resources be needed?

No

Additional library/learning resources needed?

No

OAPI Use Only – Determination of SACSCOC Impact

Comments or Notes

Green Leaf Program Designation

Is this a Green Leaf program? No

Does this program cover material which crosses into another department?

No

Additional Attachments

SCHEV Proposal

Executive Summary

Reviewer Comments

Additional Comments

Is this course required of all students in this degree program?

%wi_required.eschtml%

Key: 212