

Program Change Request

Date Submitted: 10/03/21 5:34 pm

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

Last approved: 03/11/21 11:19 am

Last edit: 10/14/21 2:17 pm

Changes proposed by: nburtch

Catalog Pages Using this Program

[Geoinformatics and Geospatial Intelligence, MS](#)

2022-2023

Rationale for

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

No

Requestor:

Effective Catalog: 2022-2023

Program Level: Graduate

Program Type: Master's

Degree Type: Master of Science

Title:

Geoinformatics and Geospatial Intelligence, MS

Banner Title: Geoinformatics, MS

Is this a retitling of an existing program?

Existing Program

In Workflow

1. GGS Chair
2. SC Curriculum Committee
3. SC Associate Dean
4. SC CAT Editor
5. Assoc Provost-Graduate
6. Registrar-Programs

Approval Path

1. 10/07/21 12:04 pm
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 Johanna Riemen (jriemen)
5. Mar 11, 2021 by Johanna Riemen (jriemen)

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

Concentration(s):

INTO Major(s):

Registrar/IRR Use Only – Concentration CIP Code

College/School: College of Science

Department / Academic Unit: Geography & Geoinformation Science

Jointly Owned Program? No

Participating

Participating

Justification

What: Remove GRE requirements for admission of all GGS MS programs including ESS MS (shared with AOES). Reduce the required number of recommendation letters from three to two for all GGS MS programs.

Why: Usage of the GRE declined in admission decision and the GRE scores were not an indicator of student success. For reducing letters of recommendation, most MS students chose the non-thesis option. Letters are helpful only for research-oriented students.

Catalog Published Information

Total Credits Required: Total credits: 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 [Graduate Admissions Policies](#).

~~To apply for this program, please complete the George Mason University Admissions Application.~~ **Eligibility and Application Requirements**

In addition to the university-wide requirements, applicants Applicants for this master's should hold a BA or BS degree in a discipline related **to the** ~~to the~~ program's theme from an institution of higher education accredited by a Mason-recognized U.S. institutional accrediting agency or international **equivalent**, ~~equivalent with a minimum GPA of 3.00~~; 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

To apply for this program, please complete the [George Mason University Admissions Application](#).

~~To apply, prospective students should complete the George Mason University Admissions Application. Official transcripts from each college and graduate institution attended, a current résumé, and a goals statement will be required. Applicants will also need three letters of recommendation and an official report of scores obtained on the GRE-GEN. The GRE requirement for admission may be waived if the student holds a master's degree from an institution of higher education accredited by a Mason-recognized U.S. institutional accrediting agency or international equivalent. TOEFL scores are required of all international applicants.~~

Program-Specific Policies:

Policies

For policies governing all graduate programs, see [AP.6 Graduate Policies](#).

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		21

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 772](#) Cloud Geographic Information Systems

[GGS 791](#) Advanced Spatial Statistics

Computational Geoinformatics:

[GGS 650](#) Introduction to GIS Algorithms and Programming

[GGS 671](#) Algorithms and Modeling in GIS

[GGS 681](#) Social Media Analysis

[GGS 692](#) Web-based Geographic Information Systems

[GGS 754](#) Earth Science Data and Advanced Data Analysis

GGG 773

Interoperability of Geographic Information Systems

Total Credits

9

1 Course selections must be approved by the program coordinator.

**Retroactive
Requirements**

Updates:

Plan of Study:

Honors

Information:

**Accelerated
Description/Dual
Degree
Description:**

**INTO-Mason
Requirements:**

**College
Requirements &
Policies:**

**Department /
Academic Unit
Requirements &
Policies:**

Program Outcomes

Additional Program Information

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

**Courses offered via
distance (if
applicable):**

**Indicate whether
students are able**

What is the primary delivery format for the program?	Both Face-to-Face and Distance
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Does any portion of this program occur off-campus?

No

Off-campus details:

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

No

Please explain:

**Related
Departments**

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

No

Please explain:

Are you adding or removing a licensure component?

No

Please explain:

Additional SCHEV & SACSCOC Information

Are you changing the total number of credits required for this program?

No

Are you changing the delivery format in any way (e.g adding an online option)?

No

Are you adding/removing a licensure option which was approved by SCHEV?

No

Will any portion of this program be offered at an off-campus location?

No

What off-campus location(s)? List all

**What percentage of credits toward this program are offered at the off-campus location(s)?
Please list percentages by site (i.e. 15% at Site A, 35% at Site B etc.)**

Will this program change affect any specialized accreditation?

No

Is the content of the new program closely related to that of an existing approved program?

No

Which existing approved program(s)?

Is this new program considered to be "advancing the degree level of a currently approved program" (i.e. existing content is at lower degree level, new content is at the higher degree level)?

No

Which existing approved program(s)?

Is this new program considered to be "lowering the degree level of a currently approved program" (i.e. existing content is at higher degree level, new content is at the lower degree level)?

No

Which existing approved program(s)?

Does this change represent a repackaging of content in an existing approved degree/certificate program?

No

Which existing approved program(s)?

Percentage of total credits containing new course content, excluding gen ed courses for undergraduate programs. ("New content" means content that is not currently included in an existing approved degree/certificate program.) Please choose a percentage (i.e. 0%-100%)

less than 25%

Are the total credits for the program increasing or decreasing by more than 3 credits?

No

Will any additional equipment/facilities be needed?

No

Description of institutional impact:

Will any additional faculty be required?

No

Description of institutional impact:

Will any additional financial resources be needed?

No

Description of institutional impact:

Will any additional library/learning resources needed?

No

Description of institutional impact:

OAPI Use Only – Determination of SACSCOC Impact

Comments or Notes

Green Leaf Program Designation**Is this a Green Leaf program?** No**Green Leaf Designation**

Sustainability-focused academic programs require at least one green leaf course. Either that course is itself sustainability-focused or else the program requires a set of sustainability-related courses with aggregated

Relationship to Existing Courses**Relationship to Existing Programs****List sustainability-focused courses currently required in the degree**

Sustainability-related academic programs either require at least one sustainability-related course or else offer any green leaf course as an option or elective *

List sustainability-related courses currently required in the degree**Does this program cover material which crosses into another department?**

No

Impacted Departments**Additional Attachments****SCHEV Proposal**

Executive Summary

**Reviewer
Comments**

**Additional
Comments**

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

%wi_required.eshtml%

**Attached
Document**

Key: 212