

# Program Change Request

Date Submitted: 11/02/21 2:15 pm

## Viewing: **SC-CERG-RSIP : Remote Sensing and Image Processing Graduate Certificate**

Last approved: 03/08/21 11:50 am

Last edit: 11/16/21 11:37 am

Changes proposed by: nburtch

### Catalog Pages

#### Using this Program

[Remote Sensing and Image Processing Graduate Certificate](#)

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

No

Effective Catalog: 2022-2023

Program Level: Graduate

Program Type: Certificate

Degree Type: Graduate Certificate

#### Title:

Remote Sensing and Image Processing Graduate Certificate

#### Banner Title:

**Remote Sensing Grad Cert**

#### Registrar/OAPI Use

Approved

#### Only – SCHEV

#### Status

#### Registrar’s Office

#### Use Only –

#### Program Start Term

#### Registrar/OAPI Use

#### Only – SCHEV

#### Letter

#### Registrar/OAPI Use

#### Only – SACSCOC

#### Status

### In Workflow

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

### Approval Path

1. 11/04/21 12:14 pm  
Nathan Burtch (nburtch): Approved for GGS Chair
2. 11/11/21 6:47 am  
Jennifer Bazaz Gettys (jbazaz): Rollback to GGS Chair for SC Curriculum Committee
3. 12/03/21 1:12 pm  
Nathan Burtch (nburtch): Approved for GGS Chair

### History

1. Nov 8, 2017 by clmig-jwehrheim
2. Feb 23, 2021 by Johanna Riemen (jriemen)
3. Mar 8, 2021 by Tori Blocker (vblocke)

**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: Removing language of admissions requirements that is redundant to University-wide policies. Updating elective course list.

Why: This allows the program to remain in step with the University policies even if those are changed at some point. The redundant language is unnecessary, and this section should be reserved for additional application materials wanted by the department. As new courses have been created and other courses de-emphasized, the elective list needs updating.

## Catalog Published Information

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**Total Credits  
Required:** Total credits: 15

**Registrar's Office Use Only - Program Code:**  
SC-CERG-RSIP

**Registrar/IRR Use  
Only – Program CIP  
Code**

**Admission  
Requirements:**

## Admissions

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University-wide admissions policies can be found in the [Graduate Admissions Policies](#) section of this catalog.

**This certificate program focuses on the skills needed to take advantage of the enormous increase in the availability and use of remotely sensed data related to the Earth. Ideal candidates for this certificate are those who have a background in Earth and environmental sciences and are working in or planning to enter into the field of remote sensing, Earth observing, or image processing.**

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

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

~~TOEFL scores are required of all international applicants who do not hold at least a bachelor's degree from an institution of higher education accredited by a Mason-recognized U.S. institutional accrediting agency or international equivalent. Applicants should hold a BA or BS degree in a discipline related to the science and applications of remote sensing 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. Applicants should have some prior education or training in remote sensing or image processing. Students with a background in one of the physical sciences (physics, chemistry, atmospheric science, hydrology, or geology), geography, or environmental science will be particularly well-suited to undertake this program. Applicants should have an undergraduate background that includes courses in differential and integral calculus, and they should possess working knowledge of a computer programming language.~~

**Program-Specific Policies:**

## Policies

For policies governing all graduate programs, see [AP.6 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.

**Degree Requirements:**

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

<a href="#">GGS 579</a>	Remote Sensing	3
<a href="#">GGS 680</a>	Earth Image Processing	3
<a href="#">GGS 740</a>	Hyperspectral Imaging Systems	3
Total Credits		9

### Electives

Select two electives from the following:

6

- ~~GGS 562~~      ~~Photogrammetry~~
- [GGS 622](#)      [Drone Remote Sensing](#)
- [GGS 626](#)      [Physical Fundamentals of Remote Sensing](#)

**GGG 629 Remote Sensing of the Environment and Earth System****GGG 754 Earth Science Data and Advanced Data Analysis****GGG 756 ~~Physical Principles of Remote Sensing~~****GGG 760 Advanced Topics in Remote Sensing****GGG 777 Remote Sensing Natural Hazards****GGG 787 Scientific Data Mining for Geoinformatics****GGG 840 Hyperspectral Imaging Applications**

Total Credits

6

Retroactive  
Requirements  
Updates:

Plan of Study:

Program Outcomes

**Additional Program Information**

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*This information is required by the Office of Accreditation and Program Integrity.*Courses offered via  
distance (if  
applicable):Indicate whether  
students are able  
to pursue on a: Both Full and Part-time basisWhat is the  
primary delivery  
format for the  
program? **Hybrid**

Does any portion of this program occur off-campus?

**No**

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

**No**Related  
DepartmentsCould 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

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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

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

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

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

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

No

Percentage of total credits containing new course content, excluding gen ed courses for undergraduate program: ("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

Will any additional faculty be required?

No

Will any additional financial resources be needed?

No

Will any 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

Reviewer Comments

Jennifer Bazaz Gettys (jbazaz) (11/11/21 6:47 am): Rollback: Per department request.

Additional Comments

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

%wi\_required.eshtml%

Key: 210