

# Program Change Request

Date Submitted: 09/07/22 10:50 am

Viewing: **SC-MS-CSIM : Computational Science, MS**

Last approved: 04/27/22 3:43 pm

Last edit: 10/27/22 3:33 pm

Changes proposed by: jbazaz

## Catalog Pages

### Using this Program

[Computational Science, MS](#)

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

Yes

## Requestor:

## In Workflow

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

## Approval Path

1. 09/08/22 1:03 pm  
Jason Kinser (jkinser): Approved for CDS Chair
2. 09/30/22 11:12 am  
Gregory Craft (gcraft): Approved for SC Curriculum Committee
3. 10/05/22 6:02 pm  
Jennifer Bazaz Gettys (jbazaz): Rollback to SC Curriculum Committee for SC Associate Dean

## History

1. Oct 23, 2017 by clmig-jwehrheim
2. Jan 11, 2018 by rzachari
3. Feb 14, 2018 by rzachari

4. Feb 22, 2018 by rzachari
5. Feb 23, 2021 by jriemen
6. Apr 13, 2022 by Tory Sarro (vsarro)
7. Apr 27, 2022 by Tory Sarro (vsarro)

Name	Extension	Email
Eduardo Lopez	5916	elopez22@gmu.edu

**Effective Catalog:** 2023-2024

**Program Level:** Graduate

**Program Type:** Master's

**Degree Type:** Master of Science

**Title:** Computational Science, MS

**Banner Title:** MS Computational Science

**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):**

**Registrar/IRR Use Only – Concentration CIP Code:**

**College/School:** College of Science

**Department / Academic Unit:** Computational & Data Sciences

**Jointly Owned Program?** No

**Justification**

What:

- a) Eliminating the requirement of submitting GRE-GEN or GRE-SUB scores. Clarifying the sentence about an appropriate academic background.
- b) Directing students to university requirements re: English proficiency.

Why:

- a) Simplifying the existing catalog paragraph to assert that the GRE-GEN and GRE-SUB scores are not required (modified catalog description is below). The requirement of GRE tests is disappearing across the Nation in universities and fellowships, including Mason.
- b) To reduce the chance of conflicting language- we defer to the university re: English proficiency.

**Total Credits Required:** Total credits: 30

**Registrar's Office Use Only - Program Code:**

SC-MS-CSIM

**Registrar/IRR Use Only – Program CIP Code** 30.0801 - Mathematics and Computer Science.

**Admission Requirements:**

## Admissions

University-wide admissions policies can be found in the [Graduate Admissions Policies](#) section of this catalog. To apply for this program, please complete the [George Mason University Admissions Application](#).

### Eligibility

Applicants to all graduate programs at George Mason University must meet the admission standards and application requirements for graduate study as specified in the [Graduate Admissions Policies](#) section of this catalog. Applicants to the Computational Science, MS should have **an academic background** in **one of** the following **fields: physical sciences, life sciences, engineering, mathematics, or computer science.** ~~appropriate fields: physical or biological sciences, engineering, mathematics, or computer science.~~ They should have an **earned baccalaureate undergraduate degree** from an institution of higher education accredited by a ~~Mason-recognized U.S. institutional accrediting agency or international equivalent with a GPA of at least 3.00 in their last 60 credits of study.~~ **institutional accrediting agency, or international equivalent, verified from official transcripts with a GPA of** ~~In addition, applicants should have taken~~ at least **3.00 one course** in **their last 60 credits of study. In addition,**

applicants should have taken at least one course differential equations and have facility in differential equations and have facility in using a high-level computer programming language.

## Application Requirements

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To apply, prospective students should complete the [George Mason University Admissions Application](#), supply two copies of official transcripts from each university attended, a current résumé, and an expanded goals statement. Applicants should also provide two letters of **recommendation**. ~~recommendation and an official report of scores on the GRE-GEN:~~

**International applicants must provide Mason with verification of their proficiency in English for admission consideration.** ~~The GRE-SUB is recommended if it is given in the student's undergraduatemajor. The GRE requirement will be waived if the student holds a bachelor's or a master's degree from an institution of higher education accredited by a Mason-recognized U.S. institutional accrediting agency or international equivalent in the appropriate fields listed above. For Acceptable TOEFL scores (as determined by university policy) are required of all international applicants; for more information visit [Admission of International Students](#). The ETS code for Mason is 5827.~~

### Program-Specific Policies:

## Policies

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

### Degree Requirements:

Students should refer to the [Admissions & Policies](#) tab for specific policies related to this program.

## Core Courses

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Select 6 credits from the following:	6
<a href="#">CSI 690</a> Numerical Methods	
<a href="#">CSI 695</a> Scientific Databases	
<a href="#">CSI 702</a> High-Performance Computing	
<a href="#">CSI 703</a> Scientific and Statistical Visualization	
Total Credits	6

## Computational Extended Core

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Select 15 credits from any graduate-level CSI, CDS, or CSS courses <sup>1</sup>	15
<a href="#">CDS</a>	
<a href="#">CSI</a>	
<a href="#">CSS</a>	
Total Credits	15

<sup>1</sup>Not including the following research courses: [CSI 796](#) Directed Reading and Research, [CSI 798](#) Research Project,

[CSI 799](#) Master's Thesis, [CSI 898](#) Research Colloquium in Computational Sciences and Informatics, [CSI 899](#) Colloquium in Computational and Data Sciences, [CSI 991](#) Seminar in Scientific Computing, [CSI 996](#) Doctoral Reading and Research, or from courses previously taken.

## Electives

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Select 9 credits of electives 1,2,3 9

Total Credits 9

1 Typically chosen from [computational sciences and informatics](#), [chemistry](#), [mathematics](#), [physics](#), [engineering](#), [information technology](#), and [statistics courses](#).

2 Students should create a curriculum plan for an area of emphasis or combined areas of emphases in consultation with their academic advisor.

3 No more than 6 credits may be chosen from areas outside of CSI.

Elective credits may also include:

[CSI 796](#) Directed Reading and Research 1-6

[CSI 798](#) Research Project 1-3

[CSI 799](#) Master's Thesis 1-6

**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):**

**What is the  
primary delivery  
format for the  
program?** Face-to-Face Only

**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**

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**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 instructional 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

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Comments or Notes

## Green Leaf Program Designation

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Is this a Green Leaf program? No

Does this program cover material which crosses into another department?

No

Additional Attachments

[ms computational science\\_001.pdf](#)

SCHEV Proposal

Executive Summary

Reviewer Comments

Jennifer Bazaz Gettys (jbazaz) (10/05/22 6:02 pm): Rollback: Tabled at meeting; for Oct. agenda.

Additional Comments

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

%wi\_required.eshtml%

Key: 24