# Program Change Request

Date Submitted: 02/23/24 3:59 pm

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

Last approved: 01/25/23 4:37 pm

Last edit: 03/01/24 9:45 am

Changes proposed by: jbazaz

**Catalog Pages Using this Program**

Computational Science, MS

**No Longer**

2024-2025

**Anticipated closure date (i.e., calendar**

**Rationale for**

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

No

**Requestor:**

**Effective Catalog:** 2024-2025

**Program Level:** Graduate

**Program Type:** Master's

**Degree Type:** Master of Science

**Title:** Computational Science, MS

**Approval Criteria**

**1. What was the process used within your academic**

**2. Who was involved in approving the badge?**

**3. What evidence was used to identify need/demand**

**4. Please attest to the following statements regarding your badge:**

**a. Have you ensured there are no other existing badges**

**b. Has CPE confirmed the proposed badge does not**

**c. Has the instructor(s) for this badge experience been**

**d. Is there a contact hour minimum?**

**e. Is an assessment required?**

**f. Does this badge provide a benefit for current or**

**5. Is this badge co-sponsored with another organization, association, or unit? (If you would like an**

**a. What is the organization, program, or department**

**Earning Criteria**

**Course:**

### In Workflow

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

### Approval Path

1. 02/26/24 1:54 pm Jason Kinser (jkinser): Approved for CDS Chair

### 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)
8. Jan 25, 2023 by Jennifer Bazaz Gettys (jbazaz)

Badge:
Participant:
Payment:
Portfolio:
Presentation:
Assessment:
Credential:
Education

Other:
Project:
Professional

Schedule/Registration:
Volunteer:

Skills Tag

Skills Tag

Badge Attributes

Please select one from each category:
Achievement Type:
Mastery Level:
Time Commitment:
Cost:
Industry Standards:
Recommendations:

Issuance information and Pricing

*Pricing: See https://cpe.gmu.edu/digitalbadgepricing/ for more information.*

Estimated Number of Badges Expected to be Issued:

## Notes:

- All badge requests will be routed to CPE for review and approval. Please allow 7 business days for processing. A draft badge template and design will be provided
- A Mason Digital Credentials Advisory Group may be developed to review badge development on an annual basis to determine which badges are underutilized and may need to be archived. Earners for any archived badges will always retain
- To view examples of all active badges at Mason, please see:

| | |
|---|---|
| **Banner Title:** | MS Computational Science |
| **Is this a retitling of an existing program?** | |
| **Existing Program Title** | |
| **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:** | Computational & Data Sciences |
| **Jointly Owned Program?** | No |
| **Participating** | |
| **Participating** | |
| **Justification** | What: Referring applicants to central admissions language and removing extraneous wording.<br>Why: To make the program more adaptable to changes in university policies. |

### Catalog Published Information

| | |
|---|---|
| **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. International students and students having earned international degrees should also refer to Admission of International Students for additional requirements.

~~**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 thiscatalog.**~~**Eligibility**

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. They should have an earned baccalaureate from an institution of higher education accredited by a Mason-recognized U.S. institutional accrediting agency, ~~agency,~~ or international equivalent ~~equivalent, verified from official transcripts~~ with a GPA of at least 3.00 in their last 60 credits of study. In addition, applicants should have taken at least one course in differential equations and have facility in using a high-level computer programming language.

## Application Requirements

To apply for this program, ~~apply,~~ prospective students should submit ~~complete~~ the George Mason University Admissions Application and its required supplemental documentation, ~~, supply two copies of official transcripts from each university attended,~~ a goals statement, ~~current résumé,~~ and two letters of recommendation. ~~an expanded goals statement.~~
The GRE is not required for admission into this program.
~~Applicants should also provide two letters ofrecommendation.International applicants must provide Mason with verification of their proficiency in English for admissionconsideration.For more information visit "Admission of International Students" and English Proficiency Requirements.~~

**Program-Specific Policies:**

# Policies

For policies governing all graduate programs, see ~~degrees, 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.

**Degree Requirements:**

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

## Core Courses

| | |
|---|---|
| Select 6 credits from the following: | 6 |
| CSI 690 Numerical Methods | |
| CSI 695 Scientific Databases | |
| CSI 702 High-Performance Computing | |
| CSI 703 Scientific and Statistical Visualization | |
| Total Credits | 6 |

## Computational Extended Core

| | |
|---|---|
| Select 15 credits from any graduate-level CSI, CDS, or CSS courses | 15 |
| CDS | |
| CSI | |
| CSS | |
| Total Credits | 15 |

**1**

Not including the following research courses: CSI 796 Directed Reading and Research, CSI 798 Practicum 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 Course CSI 991 Not Found, CSI 996 Doctoral Reading and Research, or from courses previously taken.

## Electives

| | |
|---|---|
| Select 9 credits of electives [1,2,3] | |
| 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 | Practicum Project | 1-3 |
| CSI 799 | Master's Thesis | 1-6 |

**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?** Face-to-Face Only

**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

**Is the content of the new program closely related to that of an existing approved program at the same instructional level (i.e., baccalaureate, master's, doctoral)?**

**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)?**

**Which existing approved program(s)?**

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

**Which existing approved program(s)?**

**Is this a re-opening of a program that was closed to admission within the last five years?**

**Date of Program Closure**

**What are the methods of delivery for the program?**

**Does this program include a course/credit-based competency-based education delivery option?**

**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

**Which existing approved program(s)?**

**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

**What is the new method of delivery?**

**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

**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:**

**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 substance equivalent to a sustainability-focused course.*

**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** ms computational science_001.pdf

**SCHEV Proposal**

**Executive Summary**

**Reviewer Comments**

**Additional Comments**

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

%wi_required.eschtml%

Key: 24