

Program Change Request

Date Submitted: 09/28/21 11:41 am

Viewing: : **Computational and Data Sciences, BS/Computational Science, Accelerated MS**

Last approved: 03/02/21 12:38 pm

Last edit: 11/01/21 12:19 pm

Changes proposed by: jbazaz

Catalog Pages

Using this Program

[Computational and Data Sciences, BS](#)

[Computational Science, MS](#)

2022-2023

Rationale for

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

No

Requestor:

Effective Catalog:

Program Level:

Program Type:

Degree Type:

Title:

2022-2023

Undergraduate & Graduate (BAMs)

Bachelor's/Accelerated Master's

Computational and Data Sciences, BS/Computational Science, Accelerated MS

Ranner

Is this a retitling of an existing Existing Program

Registrar/OAPI Use Only – SCHEV

Registrar’s Office Use Only – Program Start Term

Registrar/OAPI Use Only – SCHEV

Registrar/OAPI Use Only – SACSCOC

Status

In Workflow

1. Registrar-Programs:Workflow Review
2. CDS Chair
3. SC Curriculum Committee
4. SC Associate Dean
5. Assoc Provost- Graduate
6. Assoc Provost- Undergraduate
7. Registrar-Programs

Approval Path

1. 09/30/21 10:05 am
Tory Sarro (vsarro): Approved for Registrar-Programs:Workflow Review
2. 09/30/21 10:16 am
Jason Kinser (jkinser): Approved for CDS Chair
3. 10/22/21 11:09 am
Gregory Craft (gcraft): Approved for SC Curriculum Committee

History

1. Oct 30, 2017 by
clmig-jwehrheim
2. Mar 2, 2021 by
Jennifer Bazaz Gettys (jbazaz)

Concentration(s):

INTO Major(s)

Registrar/IRR Use
Only –

Concentration CIP

College/School: College of Science**Department /
Academic Unit:** Computational & Data Sciences**Jointly Owned
Program?** Yes**Participating
Colleges****Participating
Departments**

Justification

What: Adding clarifying language about the 12 overlapping credits. Also, adding in the COS template's section entitled "Accelerated Option Requirements," which was accidentally omitted from this entry.

Why: It was noted that the sentence could be clearer, indicating that the 12 credits count toward both the undergraduate AND graduate degrees.

Catalog Published Information**Total Credits****Registrar's Office Use Only - Program Code:****Registrar/IRR Use
Only – Program CIP****Admission
Requirements:****Program-Specific
Policies:**

Degree Requirements:

**Retroactiv
Requirem**

Plan of Study:

**Honors
Information:**

Accelerated
Description/Dual
Degree
Description:

Computational and Data Sciences, BS/Computational Science, Accelerated MS

Overview

This bachelor's/accelerated master's degree program allows academically strong undergraduates with a commitment to advance their education to obtain both the [Computational and Data Sciences, BS](#) and the [Computational Science, MS](#) degrees within an accelerated timeframe. Upon completion of this 138 credit accelerated program, students will be exceptionally well prepared for entry into their careers or into a doctoral program in the field or in a related discipline. Students are eligible to apply for this accelerated program once they have earned at least 60 undergraduate credits and can enroll in up to 18 credits of graduate coursework after successfully completing 75 undergraduate credits. This flexibility makes it possible for students to complete a bachelor's and a master's in five years. For more detailed information, see [AP.6.7 Bachelor's/Accelerated Master's Degrees](#). For policies governing all graduate degrees, see [AP.6 Graduate Policies](#). For more information on undergraduates enrolling in graduate courses, see [AP.1.4.4 Graduate Course Enrollment by Undergraduates](#).

Application Requirements

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 Admission Policies](#) section of this catalog. Important application information and processes for this accelerated master's program can be found [here](#). Students should seek out the graduate program's advisor who will aid in choosing the appropriate graduate courses and help prepare the student for graduate studies. GRE-general scores are waived for graduates of BS degrees from any program in the College of Science or in the Volgenau School of Engineering at George Mason University. Applicants must have an overall undergraduate GPA of at least 3.00. Additionally, applicants will have completed the following courses with a GPA of 3.00 or better:

CDS 205	Introduction to Agent-based Modeling and Simulation	3
or CDS 251	Introduction to Scientific Programming	
CDS 230	Modeling and Simulation I	3
CDS 301	Scientific Information and Data Visualization	3
CDS 302	Scientific Data and Databases	3
CDS 303	Scientific Data Mining	3

CDS 411	Modeling and Simulation II	3
Select one from the following:		3
CDS 461	Molecular Dynamics and Monte Carlo Simulations	
CDS 490	Directed Study and Research	
CSI 500	Computational Science Tools	
Total Credits		21

Accelerated Option Requirements

After the completion of 75 undergraduate credits, students may complete 3 to 12 credits of graduate coursework that can apply to both the undergraduate and graduate degrees.

In addition to applying to graduate from the undergraduate program, students in the accelerated program must submit a bachelor's/accelerated master's transition form (available from the [Office of the University Registrar](#)) to the [College of Science's Office of Academic and Student Affairs](#) by the last day to add classes of their final undergraduate semester.

Students should enroll for courses in the master's program in the fall or spring semester immediately following conferral of the bachelor's degree, but should contact an advisor if they would like to defer up to one semester.

Students must maintain an overall GPA of 3.00 or higher in all graduate coursework and should consult with their faculty advisor to coordinate their academic goals.

Reserve Graduate Credit

Accelerated master's students may also take up to 6 graduate credits as reserve graduate credits. These credits do not apply to the undergraduate degree, but will reduce the master's degree by up to 6 credits. With 12 graduate credits counted toward the undergraduate **and graduate degrees degree** plus the maximum 6 reserve **graduate graduate** credits, the credits necessary for the **graduate degree graduate-degree** can be reduced by up to 18.

Graduate Course Suggestions

The following list of suggested courses is provided for general reference. To ensure an efficient route to graduation and post-graduation readiness, students are strongly encouraged to meet with an advisor before registering for graduate-level courses.

For students focusing on Data Science, the following courses are suggested:

CSI 501	Introduction to Scientific Programming	3
CSI 672	Statistical Inference	3
CSI 695	Scientific Databases	3
STAT 544	Applied Probability	3

For students focusing on Modeling, the following courses are suggested:

CSI 500	Computational Science Tools	3
CSI 501	Introduction to Scientific Programming	3
CSI 600	Quantitative Foundations for Computational Sciences	3
CSI 690	Numerical Methods	3

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**

**Indicate whether
students are able**

What is the primary delivery format for the program?

Does any portion of this program occur off-campus?

Off-campus details:

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

Please explain:

**Related
Departments**

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

Additional SCHEV & SACSCOC Information

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

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

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

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

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?

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

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. existing content is at higher degree level, new content is at the lower degree level)?

Which existing approved program(s)?

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

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%)

OAPI Use Only – Determination of SACSCOC Impact

Comments or Notes

Green Leaf Program Designation

Is this a Green Leaf program?

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

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?

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

[%attach_document.eshtml%](#)