

Program Approval Form

For approval of new programs and deletions or modifications to an existing program.

| Action Requested: Create New (SCHEV approval requested: Inactivate Existing Modify Existing (check ALL that approval requested: Title (SCHEV approval requested: Concentration (Choose Admission Standards/ Approval requirements Admission Standards/ Approval requirements Other Changes: College/School: Submitted by: Effective Term: Fall | ired except for minors) ply) equired except for minors) one): Add Delete pplication Requirements paconstantopoulos Please note: For student must be fully approved, e | Department: Ext: 3-3624 s to be admitted to a n ntered into Banner, an | Type (Check one B.A. M.A. X Ph.D. Undergraduate Graduate Certi Bachelor's/Acc Computational and I Email: |): B.S. Minor (req. C3 approval) M.S. M.Ed. certificate* (req. C3 approval) ficate* elerated Master's Other: Data Sciences dpapacon@gmu.edu tificate or concentration, the program versity Catalog. | |
|--|---|---|--|--|--|
| Justification: (attach separate document if necessary) | | | | | |
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| | Existing | Existing | | New/Modified | |
| Program Title: (Required) Title must identify subject matter. Do not include name of college/school/dept. Concentration(s): | Master of Science in Computational Sciences | | | | |
| Admissions Standards / Application Requirements: (Required only if different from those listed in the University Catalog) | 1 | | | | |
| Degree Requirements: Consult University Catalog for models, attach separate document if necessary using track changes for modifications | See attached pages | | See attached pages | | |
| Courses offered via distance: (if applicable) | | | | | |
| TOTAL CREDITS REQUIRED: | 30 | | | | |
| *For Certificates Only: Indicate whether students are able to pursue on a Full-time basis Part-time basis Approval Signatures | | | | | |
| Department | Date College/School | Date | Provost's Offi Required for Mir | ce Date | |
| If this program may impact another unit or is in collaboration with another unit at Mason, the originating department must circulate this proposal for review by those units and obtain the necessary signatures prior to submission. Failure to do so will delay action on this proposal. | | | | | |
| Unit Name | Unit Approval Name | Unit Approver's Sig | jnature | Date | |
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| For Minors and UG Certificates only (Cross-College Curriculum Committee Approval) | | | | | |
| C3 Committee Member Provost Office | | C3 Committee Approval Date | | | |
| For Graduate Programs Only | | | | | |
| Graduate Council Member Provost Office | | Grad | uate Council Approval Date | | |
| For Registrar Office's Use Only: Rece | eived Banner | Cat | alog | revised 7/1/15 | |

Program Proposal Submitted to the College of Science Curriculum Committee (COSCC)

The form above is processed by the Office of the University Registrar. This second page is for the COSCC's reference. Please complete the applicable portions of this page to clearly communicate what the form above is requesting.

FOR ALL PROGRAMS (required)

Program Title: Master of Science in Computational Sciences

Date of Departmental Approval:

FOR MODIFIED PROGRAMS (required if modifying a program)

- Summary of the Modification:
 - Change in the course selection to fill the required 30 credits of MSc courses
- Text before Modification (title, degree requirements, etc.):

Currently the MSc program has the following **30-credit** requirement:

- 1) Requirement of four core courses (9 credits) selected from a list of five specific courses:
 - -- CSI 690 Numerical Methods , Credits: 3
 - -- CSI 695 Scientific Databases , Credits: 3
 - -- CSI 702 High-Performance Computing, Credits: 3
 - -- CSI 703 Scientific and Statistical Visualization, Credits: 3

2) Computational Electives (12 Credits)

Select from any CSI courses listed in the catalog not including CSI 796, CSI 798, CSI 799, CSI 898, CSI 899, CSI 991, and CSI 996.

- <u>Text after Modification (title, degree requirements, etc.):</u>
- 1) Requirement of two core courses (6 credits) selected from a list of five specific courses:
 - -- CSI 690 Numerical Methods , Credits: 3
 - -- CSI 695 Scientific Databases, Credits: 3
 - -- CSI 702 High-Performance Computing, Credits: 3
 - -- CSI 703 Scientific and Statistical Visualization, Credits: 3

2) Computational Electives (15 Credits)

Select from any CSI courses listed in the catalog **not including CSI 796**, **CSI 798**, **CSI 799**, **CSI 898**, **CSI 899**, **CSI 991**, **CSI 996**, and from the above core courses.

• Reason for the Modification:

The above four core courses were put in place during the setup of the program in 1991. However, over time the area of study and interests of the students have evolved. Overtime it has become apparent that there are two major emphases, Modeling & Simulation and Data Science that allow better options for the students. These two emphases are broader and therefore we want to give more flexibility to the students by reducing the core requirement and increasing the elective credits and encouraging them to use the electives for the research-based courses CSI 796 and CSI 996.