## Program Approval Form

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

## Action Requested:

Create New (SCHEV approval required except for minors) Inactivate Existing
Modify Existing (check ALL that apply)

| $\square$ |  |
| :--- | :--- |
|  |  |
| x |  |
|  |  |
| $\square$ |  | Title (SCHEV approval required except for minors) Concentration (Choose one): $\square$ Add $\quad \square$ Delete $\quad \square$ Modify Degree Requirements

Admission Standards/ Application Requirements
Other Changes:

Type (Check one):

| $\square$ | B.A. $\quad \square$ | B.S. |
| :--- | :--- | :--- |
| M.A. | X | M.S. | | Minor (req. C3 approval) |
| :--- |
| M.Ed. |

Ph.D.
Undergraduate Certificate* (req. C3 approval)
Graduate Certificate*
Bachelor's/Accelerated Master's $\square$ Other:

College/School: Submitted by:

Effective Term:

| COS |
| :--- |
| Dimitrios Papaconstantopoulos |

Fall 2016

Department: Computational and Data Sciences
Ext: 3-3624 $\square$ Email: dpapacon@gmu.edu

Please note: For students to be admitted to a new degree, minor, certificate or concentration, the program must be fully approved, entered into Banner, and published in the University Catalog.

Justification: (attach separate document if necessary)

Program Title: (Required)
Title must identify subject matter. Do not include name of college/school/dept.
Concentration(s):
Admissions Standards / Application
Requirements: (Required only if different from those listed in the University Catalog)

## Degree Requirements:

Consult University Catalog for models, attach separate document if necessary using track changes for modifications

Courses offered via distance:
(if applicable)
TOTAL CREDITS REQUIRED:

| Existing | New/Modified |
| :--- | :--- |
| Master of Science in Computational Sciences |  |
|  |  |
|  | See attached pages |
| See attached pages |  |
| 30 |  |

*For Certificates Only: Indicate whether students are able to pursue on a
Full-time basis $\quad \square$ Part-time basis
Approval Signatures
Department 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 Signature | Date |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |

For Minors and UG Certificates only (Cross-College Curriculum Committee Approval)

## C3 Committee Member

Provost Office
C3 Committee Approval Date

## For Graduate Programs Only

$\qquad$ Catalog

## 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: $\qquad$

## 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.

- Text after Modification (title, degree requirements, etc.):

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.

