

# **Course Approval Form**

For instructions see: http://registrar.gmu.edu/facultystaff/catalog-revisions/course/

Action Requested:		Course Level:	
Create new course	Inactivate existing course		Undergraduate
Modify existing course (check a	· · · · · · · · · · · · · · · · · · ·	One de Trans	Craduata
x Title Credits x Prereq/coreq Sched	Repeat Status ule Type Restrictions	Grade Type	x Graduate
Other:			
		<del></del>	
College/School: College of Sci		Department: CDS	- "
Submitted by: D. Papaconst	antopoulos	<b>Ext:</b> 3-3624	Email: dpapacon@gmu.edu
Subject Code: CSI N (Do not list multiple codes or numbers. Ea have a separate form.)		Effective Term: X Fall Spring Summe	Year 2015
Title: Current Computational P	hysics and Applications	Fulfills Ma	son Core Req? (undergrad only)
Banner (30 characters max w/ spaces)  Currently fulfills require			y fulfills requirement
New Principles of Modeling and Simulation in Science Submission in progress			
Credits: Fixed Variable to	Repeat Status: (check one)	Not Repeatable (NR) Repeatable within degree Repeatable within term (R	
Grade Mode: Regular (A, B, C	C, etc.) Schedule Ty	/pe: Lecture (LEC)	Independent Study (IND)
(check one) Satisfactory/No		Lab (LAB)	Seminar (SEM)
Special (A, B C	, etc. +IP) LEC can include LAB or RCT	Recitation (RCT) Internship (INT)	Studio (STU)
Prerequisite(s):	Corequisite(s):		Instructional Mode:
Competency in programming at C			100% face-to-face Hybrid: ≤ 50% electronically delivered
level and college physics, or perr instructor	alission of		100% electronically delivered
msu uctor	I		10070 Glock Chicany donvered
Restrictions Enforced by Syste	m: Major, College, Degree, Pr	ogram, etc. (include code)	Equivalencies: (check only as applicable)  YES, course is 100% equivalent to:
			YES, course is being renumbered to/will replace the following:
Catalog Copy for NEW Cours	SAS Only (Consult University Ca	talog for models)	to/will replace the following.
<b>Description</b> (No more than 60 words			nformation for the course)
Description (No more than so words	doe verb prinases and present ter	110tos (List adamona il	mormation for the obarde)
Indicate number of contact hours:	Hours of Lecture or Ser	minar per week	Hours of Lab or Studio:
When Offered: (check all that apply)	x Fall x Summer	x Spring	Floats of Lab of Studio.
Approval Signatures			
	10/14/2015		
Department Approval	Date	College/School Approval	Date
If this course includes subject mate	er currently dealt with by any ot	her units, the originating departs	ment must circulate this proposal for review by
those units and obtain the necessary	signatures prior to submission. Fai	lure to do so will delay action on	this proposal.
Unit Name	Unit Approval Name	Unit Approver's Signature	Date
For Graduate Courses O	nly		
Graduate Council Member Provost Office		Graduate Council Approval Date	
For Registrar Office's Use Only: Banner	Ca	talog	revised 6/22/15

# **Course 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 COURSES (required)

Course Number and Title: Principles of Modeling and Simulation in Science

Date of Departmental Approval: 9/4/2015

### FOR MODIFIED COURSES

• Summary of the Modification:

Modification of the title and prerequisites

• Text before Modification :

Title: Computational Physics and Applications

Prerequisites: PHYS 502; FORTRAN, C, or C++ programming; or permission of instructor Equivalence; course is equivalent to PHYS 613 Computational Physics II

Text after Modification (title, repeat status, catalog description, etc.):

Title: Principles of Modeling and Simulation in Science

Prerequisites: Competency in programming at CSI 501 level or permission of instructor

Equivalence: The course is no longer equivalent to other courses

• Reason for the Modification:

Currently, CSI 780 title reflects poorly the purpose of the course and the prerequisites do not need material relevant to PHYS 502 Introduction to Quantum Mechanics and Atomic Physics. Instead, students need competency in programming at the level of CSI 501, which is a programming course offered regularly in support of modeling and simulation.

The equivalence with PHYS 613 is a legacy never corrected. Currently title, catalog description and prerequisits are all different. Equivalence is therefore misleading for the students.