Course Approval Form

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

Action Requested:

- [ ] Create new course
- [ ] Inactivate existing course
- [x] Modify existing course (check all that apply)
  - [x] Title
  - [ ] Credits
  - [ ] Repeat Status
  - [ ] Grade Type
  - [x] Prereq/coreq
  - [ ] Schedule Type
  - [ ] Restrictions
  - [ ] Other:

Course Level:

- [x] Undergraduate
- [ ] Graduate

College/School: College of Science
Department: CDS
Submitted by: D. Papaconstantopoulos
Ext: 3-3624
Email: dpapacon@gmu.edu

Subject Code: CDS
Number: 461
(Do not list multiple codes or numbers. Each course proposal must have a separate form.)

Effective Term:

- [x] Fall
- [ ] Spring
- [ ] Summer

Year 2015

Title:
Current: N-body Simulation Methods
Banner (30 characters max w/ spaces): Mol Dyn & Monte Carlo Simulatio
New: Molecular Dynamics and Monte Carlo Simulations

Fulfills Mason Core Req? (undergrad only)

- [ ] Currently fulfills requirement
- [ ] Submission in progress

Credits: (check one)

- [ ] Fixed
- [ ] Variable

to

Repeat Status: (check one)

- [ ] Not Repeatable (NR)
- [ ] Repeatable within degree (RD)
- [ ] Repeatable within term (RT)

Maximum credits allowed:

Grade Mode: (check one)

- [ ] Regular (A, B, C, etc.)
- [ ] Satisfactory/No Credit
- [ ] Special (A, B C, etc. +IP)

Schedule Type: (check one) LEC can include LAB or RCT

- [ ] Lecture (LEC)
- [ ] Lab (LAB)
- [ ] Recitation (RCT)
- [ ] Internship (INT)
- [ ] Independent Study (IND)
- [ ] Seminar (SEM)
- [ ] Studio (STU)

Prerequisite(s):
Competency in programming at CDS 251 level, college physics, and MATH 214 or MATH 216, or permission of instructor

Corequisite(s):

Instructional Mode:

- [ ] 100% face-to-face
- [ ] Hybrid: ≤ 50% electronically delivered
- [ ] 100% electronically delivered

Restrictions Enforced by System: Major, College, Degree, Program, 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 Courses Only (Consult University Catalog for models)

Description (No more than 60 words, use verb phrases and present tense)	**Notes** (List additional information for the course)

Indicate number of contact hours: Hours of Lecture or Seminar per week: _____ Hours of Lab or Studio: _____

When Offered: (check all that apply) [x] Fall [x] Summer [x] Spring

Approval Signatures

Department Approval	Date	College/School Approval	Date
	10/14/2015		

If this course includes subject matter currently dealt with by any other units, 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 Graduate Courses Only

Graduate Council Member	Provost Office	Graduate Council Approval Date

For Registrar Office's Use Only: Banner_____Catalog_____

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 prerequisits
- Text before Modification :
  Title: N-Body Simulation Methods
  Prerequisits: MATH 203, MATH 213, CS 211
- Text after Modification (title, repeat status, catalog description, etc.):
  Title : Molecular Dynamics and Monte Carlo Simulations
  Prerequisits: Competency in programming at CDS 251 level, college physics, MATH 241 or 216, or permission of instructor
- Reason for the Modification:
  Currently, CDS 461 title reflects poorly the purpose of the course and the prerequisites do not need material relevant to the listed MATH and CS courses. Instead, students need competency in programming at the level of CDS 251, which is a programming course offered regularly in support of modeling and simulation.