Course Approval Form

For approval of new courses and deletions or modifications to an existing course.

registrar.gmu.edu/facultystaff/curriculum

Action Requested:

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

Course Level:

- [ ] Undergraduate
- [X] Graduate

College/School: COS **Department:** SPACS
Submitted by: Estela Blaisten **Ext:** 31988 **Email:** blaisten@gmu.edu

Subject Code: CSI **Number:** 597
(Do not list multiple codes or numbers. Each course proposal must have a separate form.)

Effective Term:

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

Year 2013

Title:
Current
Banner (30 characters max including spaces): Topics Scie. & Eng. Simulation
New: Topics in Science and Engineering Simulation

Credits: (check one)

- [3] Fixed
- [ ] Variable

x or to

Repeat Status: (check one)

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

Maximum credits allowed:

Grade Mode: (check one)

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

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

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

Prerequisite(s): Permission of instructor

Corequisite(s):

Instructional Mode:

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

Restrictions Enforced by System: Major, College, Degree, Program, etc. Include Code.

Are there equivalent course(s)?

- [ ] Yes
- [X] No

If yes, please list

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) [ ] Fall [ ] Summer [ ] Spring

Approval Signatures

Department Approval Date

College/School Approval Date

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 11/8/11

Course Proposal Submitted to the Curriculum Committee of the College of Science

1. COURSE NUMBER AND TITLE: CSI 597 Topics in Science and Engineering Simulation

Course Prerequisites: Permission of instructor.

Catalog Description: Covers selected topics in Science and Engineering simulation, not covered in fixed-content computational sciences and informatics courses.

2. COURSE JUSTIFICATION:

Course Objectives: This topics course brings interesting subjects in the areas of computer simulation, big data simulation and analysis for students in a variety of graduate programs including the master in Computational Science (COMP). The course is also geared to attract undergraduate students in their final year of studies with a desire to expand their knowledge in the targeted topic areas. The course may be taught as a hybrid or fully electronically delivered in accordance with recent trends in education at GMU.
Course Necessity: The course is an elective and complements effectively the knowledge in core courses
Course Relationship to Existing Programs: Topics to be covered in this course impact primarily graduate students in the MS in Computational Science and PhD in Computational Sciences and Informatics.

Course Relationship to Existing Courses: None

3. APPROVAL HISTORY: new

4. SCHEDULING AND PROPOSED INSTRUCTORS: The course will be scheduled on irregular fashion.

Semester of Initial Offering: Fall 2013

Proposed Instructors: Kirk Borne, Fernando Camelli, Juan Cebral, Cing-Dao (Steve) Kan, Dhafer Marzougui, Howard Sheng, Boris Veytsman, Chi Yang.

5. TENTATIVE SYLLABUS:

Fourteen weeks to cover modules related to topics in computer simulation and data analytics. Content will vary depending on specific theme.