# Course Change Request

Date Submitted: 12/05/18 10:37 am

## Viewing: **CSI 780 : Principles of Modeling and Simulation in Science**

Last edit: 12/05/18 10:37 am

Changes proposed by: blaisten

**Catalog Pages
referencing this
course**

   Computational Science and Informatics (CSI)

   Department of Computational and Data Sciences

**Select modification type:**

**Substantial**

**Are you completing this form on someone else's behalf?**

**No**

| | |
|---|---|
| **Effective Term:** | Fall 2019 |
| **Subject Code:** | CSI - Computational Science & Informatics |

**Course Number:**
780

**Bundled Courses:**

**Is this course replacing another course?**    No

**Equivalent
Courses:**

**Catalog Title:**    Principles of Modeling and Simulation in Science

**Banner Title:**    Principles Modeling/Simulation

**Will section titles
vary by semester?**    No

**Credits:**

|            | 3 |
|---|---|
| **Schedule Type:** | Lecture |
| **Hours of Lecture or Seminar per week:** | 3 |
| **Repeatable:** | May only be taken once for credit (NR) *GRADUATE ONLY* |
| **Default Grade Mode:** | Graduate Regular |

**Recommended Prerequisite(s):**

  Competency in programming at CSI 501 level ~~and college physics,~~ or permission of instructor.

**Recommended Corequisite(s):**


**Required Prerequisite(s) / Corequisite(s) (Updates only):**


**Registrar's Office Use Only - Required Prerequisite(s)/Corequisite(s):**

| And/Or | ( | Course/Test Code | Min Grade/Score | Academic Level | ) | Concurrency? |
|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |

**Registration Restrictions (Updates only):**


**Registrar's Office Use Only - Registration Restrictions:**

       **Field(s) of Study:**

       **Class(es):**

       **Level(s):**

  Include

  Enrollment limited to students with a level of Non-Degree (SCRRLVL_ONLY_ND)

  Limited to graduate level students only. (SCRRLVL_ONLY_GR)

       **Degree(s):**

Exclude

Non-Degree Undergraduate Degree students may not enroll. (SCRRDEG_NO_NDU)

**School(s):**

**Catalog
Description:**

Applies numerical methods to study of variety of physical systems, with emphasis on modeling and simulation. Develops numerical algorithms and simulation codes to gain understanding of mechanisms, processes in physical systems. Includes several projects drawn from such areas as atomic and molecular interactions, molecular dynamics, lattice dynamics, quantum systems, chaos, percolation, random walks, aggregation mechanisms of soft solids, nanomaterials, and nonlinear dynamics.

**Justification:**

The inclusion of "college physics" in the prerequisites is misleading, graduate students understanding that they need a BS in physics to take this course.

**Does this course cover material which
crosses into another department?**       No

**Learning Outcomes:**

**Attach Syllabus**

**Additional
Attachments**

**Specialized Course
Categories:**

**Additional
Comments:**

**Reviewer
Comments**