Course Change Request

Date Submitted: 12/03/18 3:28 pm

Viewing: CSI 782 : Statistical Mechanics for Modeling and Simulation

Last edit: 12/03/18 3:28 pm

Changes proposed by: blaisten

Catalog Pages referencing this course	Computational Science and Informatics (CSI) Department of Computational and Data Sciences
Programs referencing this	SC-PHD-CSI: Computational Sciences and Informatics, PhD

Select modification type:
Simple

Are you completing this form on someone else's behalf?
No

Effective Term: Fall 2019

Subject Code: CSI - Computational Science & Informatics **Course Number:** 782

Bundled Courses:

Is this course replacing another course? No

Equivalent Courses:

Catalog Title: Statistical Mechanics for Modeling and Simulation

Banner Title: Stat Mechanics for Model/Sim

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): CSI 690, 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):

In Workflow

1. **CDS Chair**
2. **SC Curriculum Committee**
3. SC Associate Dean
4. Registrar-Courses
5. Banner

Approval Path

1. 12/04/18 1:08 pm Jason Kinser (jkinser): Approved for CDS Chair

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: Studies microcanonical, canonical, and grand canonical ensembles and **fluctuations.** ~~fluctuations, as well as Fermi-Dirac and Bose-Einstein statistics.~~ **Includes modeling** ~~Modeling~~ of ideal, dilute, and diatomic gases, liquids, and **crystals, and the Liouville equation.** ~~crystals. Also covers Liouville equation and simulation in classical statistical mechanics.~~ Introduces Brownian motion, kinetic theory, and transport processes. **Includes Monte Carlo algorithms and numerical methods for simulation in classical statistical mechanics.**

Justification:

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

Learning Outcomes:

This is a slight modification to the catalog description that rephrases the existing one and is more specific to highlight the computational techniques.

Attach Syllabus

Additional Attachments

Specialized Course Categories:

Additional Comments:

Reviewer Comments

Key: 3368