

Course Approval Form

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

registrar.gmu.edu/facultystaff/curriculum

Action Requested: Create new course x Modify existing course (check a Title Credit x Prereq/coreq Sched Other:		Cc x Grade Type	urse Level: Undergraduate Graduate			
College/School: COS Submitted by: Estela Blaiste	n	Department: SPACS Ext:	Email: blaisten@gmu.edu			
Subject Code: CSI No. (Do not list multiple codes or numbers. Ear have a separate form.)		Effective Term: X Fall Spring Summe	Year 2013			
Title: Current Statistical Med Banner (30 characters max in New	nanics for Modeling and Simula cluding spaces) Stat. Me	tion ch. Model. Simulation				
Credits: 3 Fixed x 0 (check one) Variable to		x Not Repeatable (NR) Repeatable within degree (Repeatable within term (RT				
Grade Mode: X Regular (A, B, Satisfactory/No Special (A, B C	Credit (check one)	Lab (LAB)	Independent Study (INI Seminar (SEM) Studio (STU)	D)		
Prerequisite(s): CSI 690, or permission of inst	ructor Corequisite(s):		Instructional Mode: x 100% face-to-face Hybrid: ≤ 50% electronic 100% electronically deliv			
Restrictions Enforced by Syste	m: Major, College, Degree, Pro	ogram, etc. Include Code.	Are there equivalent co	urse(s)?		
Catalog Copy for NEW Conception (No more than 60 words		, ,	ormation for the course)			
Indicate number of contact hours: Hours of Lecture or Seminar per week: When Offered: (check all that apply) Fall Summer Spring						
Approval Signatures						
Department Approval	Date	College/School Approval	Dat	e		
If this course includes subject mat those units and obtain the necessary				for review by		
Unit Name	Unit Approval Name	Unit Approver's Signature	Date			
For Graduate Courses Only						
Graduate Council Member	Provost Office		Graduate Council Approval D	Date		
For Registrar Office's Use Only: Banner	Cat	alog		revised 11/8/11		

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

1. COURSE NUMBER AND TITLE: CSI 782 Statistical Mechanics for Modeling and Simulation

Course Prerequisites:

NEW: CSI 790, or permission of instructor OLD: CSI 700, or permission of instructor

Catalog Description: Studies microcanonical, canonical, and grand canonical ensembles and fluctuations, as well as Fermi-Dirac and Bose-Finstein statistics. Modeling of ideal, dilute, and diatomic gases, liquids, and nian

crystals. Also covers Liouville equation and simulation in classical statistical mechanics. Introduces Brown
motion, kinetic theory, and transport processes.
Rationale for the modification: The CSI 700 has been renumbered to CSI 690.
2. COURSE JUSTIFICATION:
Course Objectives:
Course Necessity:
Course Relationship to Existing Programs:
Course Relationship to Existing Courses:
Course Heaving to Emoving Courses.
3. <u>APPROVAL HISTORY</u> :
4. SCHEDULING AND PROPOSED INSTRUCTORS:
SCHEDCERIG AND INCIGED INSTRUCTORS.
Semester of Initial Offering:
Duran and Lindan da an
Proposed Instructors:
5. TENTATIVE SYLLABUS: