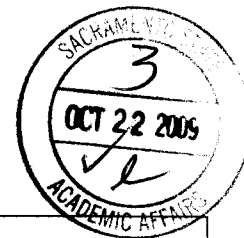




SACRAMENTO
STATE

Course Change Proposal Form A



Academic Group (College): Natural Sciences & Mathematics	Academic Organization (Department): Physics & Astronomy	Date: October 14, 2009
Type of Course Proposal: New ___ Change X ___ Deletion ___	Department Chair: Hossein Partovi	Submitted by: Hossein Partovi
Does this course fulfill a requirement for single-subject or multiple subject credential students? Yes ___ No X ___	For Catalog Copy: Yes X ___ No ___ CCE (Extension): Yes ___ No X ___	Semester Effective: Fall ___ Spring X ___, 2010 ___

This course replaces experimental course Subject Area (prefix) and Catalog Nbr (course number):	PHYS 162
If changing an existing course, should new version be considered a repeat of the original version? If so, the same Course ID will be maintained. If not, a new Course ID will be assigned. Note: In PeopleSoft terminology, the Course ID is the unique system identifier, not the Catalog Nbr.	Yes X No ___

Change from:

Subject Area (prefix) & Catalog Nbr (course no.): PHYS 162	Title: Computational Physics	Units: 3
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Change to:

Subject Area (prefix) & Catalog Nbr (course no.): PHYS 162	Title: Scientific Computing: Basics Methods	Units: 3
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JUSTIFICATION:

The proposed changes are in response to (1) current trends in academic and industrial career paths in STEM disciplines which increasingly emphasize general computational skills of simulation and modeling, and (2) the need to reorganize the elective courses offered by the Physics & Astronomy Department with a view to making them better focused and more relevant to students' future careers, as well as achieving better resource efficiency by targeting a wider group of students. The revised course PHYS 162 will be the first of two courses that are the upper-division requirement for the Scientific Computing & Simulation certificate program. The revised course and the certificate program will be offered not only to physics majors but to all students in the NSM and ECS colleges.

NEW COURSE DESCRIPTION: (Not to exceed 80 words, and language should conform to catalog copy. See <http://www.csus.edu/umannual/acad.htm> - Guidelines for Catalog Course Description)

PHYS 162. Scientific Computing: Basic Methods
Basic methods and skills of applying computers to the solution of scientific and engineering problems. Calculation techniques, modeling, simulation, data analysis, visualization, and use of programming resources. Practical experience emphasized throughout.
Prerequisites: MATH 26A or MATH 30 and PHYS 5A, or MATH 30 and PHYS 11A, or MATH 105A concurrently.
Units: 3.0.

Note: The above catalog description is very close to the "old" PHYS 162.

Prerequisite: See above
Enforced at Registration: Yes **X** No ___

Corequisite:
Enforced at Registration: Yes ___ No ___

Graded: Letter **X** ___ Credit/No Credit ___ **Instructor Approval Required?** Yes ___ No **X** ___

Course Classification (e.g., lecture, lab, seminar, discussion):
Lecture Discussion C2 **Title for CMS (not more than 30 characters):**
Sci Comp: Basic Methods

Cross Listed? Yes ___ No **X** ___ **If yes, do they meet together and fulfill the same requirement, and what is the other course.**

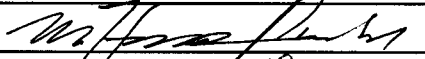
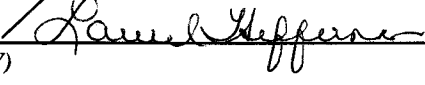
How Many Times Can This Course be Taken for Credit? 1

Can the course be taken for Credit more than once during the same term? Yes ___ No **X**___

Approvals: If proposed change, new course or deletion is approved, sign and date below. If not approved, forward without signing to the next reviewing authority, and attach an explanatory memorandum to the original copy.

Signatures:

Date

Department Chair: 	10/14/09
College Dean or Associate Dean: 	10/22/09
CPSP (for school personnel courses ONLY)	
Associate Vice President and Dean for Academic Programs	

Distribution: Academic Affairs (original), Department Chair and College Dean. Dean's office to send original after approval to Academic Affairs, at mail zip 6016. An electronic copy must also be sent.

9/10/2008