



SACRAMENTO
STATE

Course Change Proposal Form A



Academic Group: Engineering & Computer Science	Academic Organization: Computer Science Department	Date: Dec. 19, 2006
Type of Course Proposal: New ___ Change <u>X</u> Deletion ___	Department Chair: Du Zhang	Submitted by: Du Zhang
Does this course fulfill a requirement for single-subject or multiple subject credential students? Yes ___ No <u>X</u>	For Catalog Copy: Yes <u>X</u> No ___ CCE: Yes ___ No <u>X</u>	Semester Effective: Fall <u>X</u> Spring ___, 20_07__

This course replaces experimental course Subject Area (prefix) and Catalog Number (course number):	
This Catalog Number (course number) is being replaced:	

Change from:

CSC 242	Title: Computer-Aided Design Methodology for Computer Systems	Units: 3
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Change to:

CSC 242	Title: Computer-Aided Systems Design and Verification	Units: 3
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JUSTIFICATION:

The design and verification of microelectronics devices have undergone major reinventions during the past decade. Manual designs with schematic capture tools have been replaced with a synthesis of models represented in a hardware description language (HDL). The revised course introduces the latest design and verification techniques in the Computer Science and Computer Engineering curriculums at CSUS. Furthermore, it has significantly less overlap with CSc/EEE 273, Hierarchical Digital Design Methodology.

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

Design and verification methodology using hardware description and verification languages (HDVLS). Advances in IC chip design; introduction to HDVLS such as SystemVerilog; HDVL language basics including data types, arrays, structures, unions, procedural blocks, tasks, functions, and interface concepts; design hierarchy; verification planning and productivity; verification infrastructure; guidelines for efficient verification of large designs; assertion-based verification; comprehensive computer-related design projects.

Note:

Prerequisite: CSC 205

Corequisite:

CAN (California Articulation Number):

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

Course Classification: Seminar – 05 **Title for SIS+/CMS (not more than 30 characters)**
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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 1

FOR NEW COURSE PROPOSALS OR SUBSTANTIVE CHANGES ONLY:

Description of the Expected Learning Outcomes: Describe outcomes using the following format: "Students will be able to: 1), 2), etc."
See the example at <http://www.csus.edu/acaf/example.htm>

- Students will be able to:
1. Simulate a System Verilog design
 2. Utilize enhanced data types in System Verilog design
 3. Program with arrays, structures, and unions
 4. Develop System Verilog testbenches using interface concepts
 5. Understand design hierarchy in System Verilog
 6. Utilize object programming features of System Verilog

****Attach a list of the required/recommended course readings and activities [Note: it is understood that these are updated and modified as needed by the instructor(s).] This attachment should be forwarded only to your Dean's office, not Academic Affairs.**

Assessment Strategies: A description of the assessment strategies (e.g., portfolios, examinations, performances, pre-and post-tests, conferences with students, student papers) which will be used by the instructor to determine the extent to which students have achieved the learning outcomes noted above:

Tests and a term project requiring a written report on the design and verification of a complex system as well as an oral presentation.

For whom is this course being developed?

Majors in the Dept Majors of other Depts Minors in the Dept General Education Other

Is this course required in a degree program (major, minor, graduate degree, certificate)? Yes No

If yes, identify program(s):

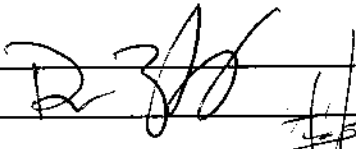
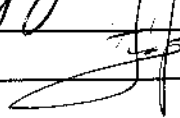
Does the proposed change or addition cause a significant increase in the use of College or University resources (lab room, computer facilities, faculty, etc.)? Yes No

If yes, attach a description of resources needed and verify that resources are available.

Indicate which department or programs will be affected by the proposed course (if any). _____

The Department Chair's signature below indicates that affected programs have been sent a copy of this proposal form.

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: 	12/19/2006
College Dean or Associate Dean: 	3/23/07
CPSP (for school personnel courses ONLY)	
Associate Vice President and Dean for Academic Programs	

CONDITIONAL APPROVAL 4/12/07

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.