CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS

COURSE MODIFICATION PROPOSAL

Courses must be submitted by October 15, 2011, and finalized by the end of the fall semester to make the next catalog (2012-13) production

DATE (CHANGE DATE EACH TIME REVISED): 9/19/11; REV 9.23.11; REV 10.11.11

PROGRAM AREA(S) : COMPUTER SCIENCE

Directions: All of sections of this form must be completed for course modifications. Use YELLOWED areas to enter data. All documents are stand alone sources of course information.

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1. Indicate Changes and Justification for Each. *[Mark all change areas that apply and follow with justification. Be as brief as possible but, use as much space as necessary.]*

- X Course title
- X Prefix/suffix
- Course number
- Units
- Staffing formula and enrollment limits
- X Prerequisites/Corequisites
- Catalog description
- X Mode of Instruction
- Course Content
- Course Learning Outcomes
- References
- GE
- Other
- Reactivate Course

Justification: The title change better reflects the course content. The cross-listing and pre-requisite change reflects the use of the course in both the BSCS and BSIT. In order for students to succeed in the course there needs to be significant instructor assistance in orienting students to the Unix operating system in a hands-on manner. A scheduled laboratory provides the time for this.

2. Course Information.

[Follow accepted catalog format.] ***(Add additional prefixes i f cross-listed)***

OLD

Prefix COMP Course# 221
Title Introduction to Unix and C for programmers Units (3)
3 hours lecture per week
hours blank per week

X Prerequisites: COMP 151
Consent of Instructor Required for Enrollment
Corequisites:

Catalog Description (Do not use any symbols):
Fundamentals of the UNIX operating system, including the command line interface (CLI), shell commands and related utilities. C will be covered at an accelerated pace, appropriate for students who already know another programming language. Fundamental C libraries, and basic UNIX system calls, will be covered. Principles of the program development cycle as applied to a UNIX environment will also be presented.

General Education Categories:
Grading Scheme (Select one below):
X A – F
Credit/No Credit
Optional (Student's Choice)
Repeatable for up to units
Total Completions
Multiple Enrollment in Same Semester Y/N
Course Level:
X Undergraduate
Post-Baccalaureate
Graduate

NEW

Prefix COMP/IT Course# 221
Title Unix System Programming I Units (3)
2 hours lecture per week
3 hours laboratory per week

X Prerequisites: COMP 151 or IT 151
Consent of Instructor Required for Enrollment
Corequisites:

Catalog Description (Do not use any symbols)**:**
Fundamentals of the UNIX operating system, including the command line interface (CLI), shell commands and related utilities. C will be covered at an accelerated pace, appropriate for students who already know another programming language. Fundamental C libraries, and basic UNIX system calls, will be covered. Principles of the program development cycle as applied to a UNIX environment will also be presented.

General Education Categories:
Grading Scheme (Select one below):
X A – F
Credit/No Credit
Optional (Student's Choice)
Repeatable for up to units
Total Completions
Multiple Enrollment in Same Semester Y/N
Course Level:
X Undergraduate
Post-Baccalaureate
Graduate

3. Mode of Instruction (Hours per Unit are defaulted) **Hegis Code(s)**_____
(Provided by the Dean)

	Existing				Proposed				
	Units	Hours Per Unit	Benchmark Enrollment	Graded	Units	Hours Per Unit	Benchmark Enrollment	Graded	CS No. (filled out by Dean)
Lecture	3	1	20	y	2	1	20	y	
Seminar		1				1			
Lab		3			1	3	20	y	
Activity		2				2			
Field Studies									
Indep Study									
Other blank									
Online									

4. Course Attributes:

General Education Categories: All courses with GE category notations (including deletions) must be submitted to the GE website: http://summit.csuci.edu/geapproval. Upon completion, the GE Committee will forward your documents to the Curriculum Committee for further processing.

A (English Language, Communication, Critical Thinking)
- A-1 Oral Communication
- A-2 English Writing
- A-3 Critical Thinking

B (Mathematics, Sciences & Technology)
- B-1 Physical Sciences
- B-2 Life Sciences – Biology
- B-3 Mathematics – Mathematics and Applications
- B-4 Computers and Information Technology

C (Fine Arts, Literature, Languages & Cultures)
- C-1 Art
- C-2 Literature Courses
- C-3a Language
- C-3b Multicultural

D (Social Perspectives)
E (Human Psychological and Physiological Perspectives)
UDIGE/INTD Interdisciplinary
Meets University Writing Requirement
Meets University Language Requirement

American Institutions, Title V Section 40404: Government US Constitution US History
Refer to website, Exec Order 405, for more information: http://senate.csuci.edu/comm/curriculum/resources.htm
Service Learning Course (Approval from the Center for Community Engagement must be received before you can request this course attribute).

5. Justification and Requirements for the Course. *[Make a brief statement to justify the need for the course]*

OLD
This course provides a path into C/UNIX programming for programmers who are already competent in another language, such as Java (hence the Comp 151 prereq). With Comp 221, these programmers can move into C/UNIX programming without having to go back to an introductory course in programming (such as Comp 105 or the newly

NEW
For both BSCS and BSIT students this course provides a path into C/UNIX programming. With Comp 221, these programmers can move into C/UNIX programming without having to go back to an introductory course in programming (such as Comp 105 or the newly proposed Comp 121). C/UNIX programming has become increasingly important in

proposed Comp 121).
C/UNIX programming has become increasingly important in the sciences and in engineering, as many mathematical and scientific applications are written in C and/or hosted on computers running the UNIX operating system. Comp 221 will provide the pace and level of instruction appropriate for scientists and programmers who need the skills necessary to to be effective in the C/UNIX environment.
:

the sciences and in engineering, as many mathematical and scientific applications are written in C and/or hosted on computers running the UNIX operating system. Comp 221 will provide the pace and level of instruction appropriate for scientists and programmers who need the skills necessary to to be effective in the C/UNIX environment.

_ Requirement for the Major/Minor
X Elective for the Major/Minor
_ Free Elective

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X Elective for the Major/Minor
_ Free Elective

Submit Program Modification if this course changes your program.

6. Student Learning Outcomes. (List in numerical order. You may wish to visit resource information at the following website: http://senate.csuci.edu/comm/curriculum/resources.htm)

Upon completion of the course, the student will be able to:

OLD

- operate UNIX-based computer (such as Mac or Linux PC) using Command Line Interface (CLI)
- edit text files using character-based editors such as vi, nano, and emacs
- interact with UNIX shells such as sh, bash, etc.
- develop C programs that utilize all major programming techniques
- write programs that interact with UNIX and that can be used as UNIX utilities; i.e., they can be invoked from CLI as UNIX extensions
- organize programs in logical groups and compile them in a systematic and synchronized manner using UNIX make facilities

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NEW

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7. Course Content in Outline Form. (Be as brief as possible, but use as much space as necessary)

OLD

I. UNIX through the terminal window
II. Navigating files system
III. Editing text files
IV. Basic syntax of C
V. Primitive data types
VI. Pointers
VII. Fundamental system calls
VIII. C pre-processor
IX. Complex data structures
X. Building C programs with the UNIX make utility

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IX. Complex data structures
X. Building C programs with the UNIX make utility

Does this course content overlap with a course offered in your academic program? Yes _ No X
If YES, what course(s) and provide a justification of the overlap. _

Does this course content overlap a course offered in another academic area? Yes _ No X
If YES, what course(s) and provide a justification of the overlap. _

Overlapping courses require Chairs' signatures.

8. Cross-listed Courses (Please note each prefix in item No. 1)

A. List cross-listed courses (Signature of Academic Chair(s) of the other academic area(s) is required).
B. List each cross-listed prefix for the course: COMP. IT
C. Program responsible for staffing: Computer Science

9. References. *[Provide 3-5 references]*

OLD • C for Java Programmers byTomasz Muldner
• Programming in C by Stephen Kochan
• C and Unix Programming: A Comprehensive Guide by N. S. Kutti
• The C/Unix Programmer's Guide by Jason W. Bacon

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10. Tenure Track Faculty qualified to teach this course.
All Computer Science faculty

11. Requested Effective Date or First Semester offered: Fall 2012

12. New Resource Requested: Yes **No** X
If YES, list the resources needed.

A. Computer Needs (data processing, audio visual, broadcasting, other equipment, etc.)

B. Library Needs (streaming media, video hosting, databases, exhibit space, etc.)

C. Facility/Space/Transportation Needs:

D. Lab Fee Requested: Yes **No** **(Refer to the Dean's Office for additional processing)**

E. Other.

13. Will this course modification alter any degree, credential, certificate, or minor in your program? Yes X **No**
If, YES attach a program update or program modification form for all programs affected.
Priority deadline for New Minors and Programs: October 1, 2011 of preceding year.
Priority deadline for Course Proposals and Modifications: October 15, 2011.
Last day to submit forms to be considered during the current academic year: April 15th.

Peter Smith — 9/19/11

Proposer(s) of Course Modification — Date
Type in name. Signatures will be collected after Curriculum approval.

Approval Sheet

Course: COMP 221

If your course has a General Education Component or involves Center affiliation, the Center will also sign off during the approval process.

Multiple Chair fields are available for cross-listed courses.

Program Chair		
	Signature	Date
Program Chair		
	Signature	Date
Program Chair		
	Signature	Date
General Education Chair		
	Signature	Date
Center for Intl Affairs Director		
	Signature	Date
Center for Integrative Studies Director		
	Signature	Date
Center for Multicultural Engagement Director		
	Signature	Date
Center for Civic Engagement and Service Learning Director		
	Signature	Date
Curriculum Chair		
	Signature	Date

AVP Comments: Program will have to cover costs	Karen Carey	10.3.11
	Signature	Date