CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS

COURSE MODIFICATION PROPOSAL

Courses must be submitted by October 15, 2010, and finalized by the end of the fall semester to make the next catalog (2011-12) production

DATE (CHANGE DATE EACH TIME REVISED): 6/15/11; REV 9.8

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.

1. Course Information.

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

OLD

Prefix COMP Course# 162 Title Computer Architecture and Assembly Language Units (3)
3 hours lecture per week
____ hours blank per week

X Prerequisites: COMP 150
__ Consent of Instructor Required for Enrollment
__ Corequisites: ____

Catalog Description (Do not use any symbols):

An introduction to computer architecture, assembly language programming, system software and computer applications. Topics include: number systems and data representation; internal organization of a computer; primitive instructions and operations; Assembly language; language translation principles; overview of operating systems

General Education Categories ____
__ Lab Fee Requested

Graded
__ CR/NC
X A - F

__ Repeatable for up to __ units
Total Completions __
__ Multiple Enrollment in same semester

Course Level:
X Undergraduate
__ Post-bac/Credential
__ Graduate

__ Optional (Student's choice)

NEW

Prefix COMP Course# 162 Title Computer Architecture and Assembly Language Units (3)
2 hours lecture per week
1 hour laboratory per week

X Prerequisites: COMP 121 or COMP 150
__ Consent of Instructor Required for Enrollment
__ Corequisites: ____

Catalog Description (Do not use any symbols)**:** An introduction to computer architecture, assembly language programming, system software and computer applications. Topics include: number systems and data representation; internal organization of a computer; primitive instructions and operations; Assembly language; language translation principles; overview of operating systems

General Education Categories ____
__ Lab Fee Requested

Graded
__ CR/NC
X A - F

__ Repeatable for up to __ units
Total Completions __
__ Multiple Enrollment in same semester

Course Level:
X Undergraduate
__ Post-bac/Credential
__ Graduate

__ Optional (Student's choice)

2. Mode of Instruction (Hours per Unit are defaulted)

Hegis Code(s)_____
(Provided by the Dean)

Existing

	Units	Hours Per Unit	Benchmark Enrollment	Graded
Lecture	3	1	24	y
Seminar		1		
Lab		3		
Activity		2		
Field Studies				
Indep Study				
Other blank				

Proposed

	Units	Hours Per Unit	Benchmark Enrollment	Graded	CS No. (filled out by Dean)
Lecture	2	1	24	y	
Seminar		1			
Lab	1	3	24	y	
Activity		2			
Field Studies					
Indep Study					
Other blank					

3. 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).

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

OLD
The course is a required course for Computer Science majors according to accreditation guidelines.

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

NEW
The course is a required course for Computer Science majors according to accreditation guidelines.

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

Submit Program Modification if this course changes your program.

5. 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
Recognize the main components of a computer system
• Determine suitable machine-level representation of data objects
• Implement algorithms in assembly language
• Describe the fundamental role of an operating system
• Translate between high-level and low-level languages
• Organize and express ideas clearly and convincingly in oral and written forms.

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

NEW
Recognize the main components of a computer system
• Determine suitable machine-level representation of data objects
• Implement algorithms in assembly language
• Describe the fundamental role of an operating system
• Translate between high-level and low-level languages
• Organize and express ideas clearly and convincingly in oral and written forms.

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

OLD
History of Computing
Components of a typical computer system
Representation of information

NEW
History of Computing
Components of a typical computer system
Representation of information

The Pep/7 architecture	The current architecture
Pep/7 assembly language	Current assembly language
Representation of control structures	Representation of control structures
Representation of data structures	Representation of data structures
Languages, grammars and the parsing problem	Languages, grammars and the parsing problem
Operating system topics	Operating system topics
Floating point	Floating point
Computer arithmetic	Computer arithmetic

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.

7. 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:
C. Program responsible for staffing:

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

OLD Warford *Computer Systems*, Fourth Edition, Jones and Bartlett 2010 ISBN976-0-7637-7144-7
Salomon, Assemblers and Loaders, Prentice-Hall, 1993
Bryant and O'Halloron, *Computer Systems: a programmer's perspective*, Second Edition,
Prentice-Hall (2010) ISBN 978-0-13-610804-7

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

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

11. 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.

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

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

Justification: 1. An alternative, equivalent pre-requisite has been added.
2. Programming in assembly language is an important focus of the course. In order for students to succeed in the course there needs to be significant instructor assistance in orienting students to the language in a hands-on manner. A scheduled laboratory provides the time for this.
3. The course outline reflects a newer version of the software.

13. Will this course modification alter any degree, credential, certificate, or minor in your program? Yes **No** X
If, YES attach a program update or program modification form for all programs affected.
Priority deadline for New Minors and Programs: October 4, 2010 of preceding year.
Priority deadline for Course Proposals and Modifications: October 15, 2010.
Last day to submit forms to be considered during the current academic year: April 15th.

Peter Smith — 6/15/11

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

Approval Sheet

Course: COMP 162

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
Dean of Faculty		
	Signature	Date