CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS
COURSE MODIFICATION PROPOSAL
Courses must be submitted by October 15, 2010, to make the next catalog (2011-12) production

DATE (CHANGE DATE EACH TIME REVISED): 6/9/10; REV 10.11.10

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.
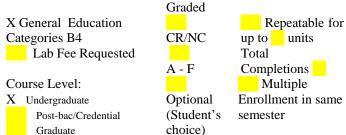
1. **Course Information.**

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

OLD	NEW
Prefix COMP Course# 105 Title Computer Programming Introduction Units (3)	Prefix COMP Course# 105 Title Computer Programming Introduction Units (3)
3 hours lecture per week	3 hours lecture per week
___ hours blank per week	___ hours blank per week
___ Prerequisites: ___	X Prerequisites: COMP 101 or consent of the instructor
___ Consent of Instructor Required for Enrollment	___ Consent of Instructor Required for Enrollment
___ Corequisites: ___	___ Corequisites: ___
Catalog Description (Do not use any symbols): Provides a balanced view of computing and provides an introduction to the world of computer science. In depth coverage of the design, development, and expression of algorithms. Covers a variety of concepts relevant to the beginning student, including computer organization and design. Not open to students who have completed COMP 150.	**Catalog Description** (Do not use any symbols)**:** Provides a balanced view of computing and provide an introduction to the world of computer science. In depth coverage of the design, development, and expression of algorithms. Covers a variety of concepts relevant to the beginning student, including computer organization and design. Not open to students who have completed COMP 150.

OLD

General Education Categories B4

Graded ___   CR/NC ___   A - F ___

___ Lab Fee Requested

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

___ Repeatable for up to ___ units
___ Total Completions ___
___ Multiple Enrollment in same semester
Optional (Student's choice)

NEW

X General Education Categories B4

Graded ___   CR/NC ___   A - F ___

___ Lab Fee Requested

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

___ Repeatable for up to ___ units
___ Total Completions ___
___ Multiple Enrollment in same semester
Optional (Student's choice)

2. **Mode of Instruction (Hours per Unit are defaulted)**   Hegis Code(s)_____

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	**3**	**1**	**24**	y	___
Seminar	___	**1**	___	___	___
Lab	___	**3**	___	___	___
Activity	___	**2**	___	___	___
Field Studies	___		___	___	___
Indep Study	___		___	___	___
Other blank	___		___	___	___

3. **Course Attributes:**

X   **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
 X   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).

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

OLD	**NEW**
The course is an introductory Computer Science course for computer science and other students.	The course is an introductory Computer Science course for computer science and other students.
Requirement for the Major/Minor Elective for the Major/Minor Free Elective	Requirement for the Major/Minor Elective for the Major/Minor Free Elective

Submit Program Modification if this course changes your program.

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5. Student Learning Outocmes. (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: Upon completion of the course, the student will be able to:

OLD

1. Be able to organize and express computer programming ideas clearly in oral and written form.
2. Be able to implement simple computer programs.
3. Be able to design simple algorithms.
4. Be able to use simple data structures including arrays.
5. Be able to implement simple computer program debugging techniques.
6. Be able to understand concepts and issues in computing including computer terminology
7. Gain a broad appreciation of the foundations of computer science, software, and hardware, as well as the effects of computing on society.

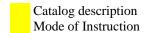**NEW**

1. Organize and express computer programming ideas clearly in oral and written form.
2. Implement simple computer programs.
3. Design simple algorithms.
4. Implement simple computer program debugging techniques.
5. Explain concepts and issues in computing including computer terminology
6. Explain the foundations of computer science, software, and hardware, as well as the effects of computing on society.

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

1. Data Representation and Organization	1. Data Representation and Organization
2. Components of a typical computer system	2. Components of a typical computer system
3. Introduction to Operating Systems and Networks	3. Introduction to Operating Systems and Networks
4. File systems	4. File systems
5. Algorithm Design and Problem Solving	5. Algorithm Design and Problem Solving
6. Functions and Procedures	6. Functions and Procedures
7. Computers and Society	7. Computers and Society

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 [unable to locate]

NEW   A Balanced Introduction to Computer Science (second edition), David Reed, Prentice Hall, 2008
        A Web-based Introduction to Programming, Mike O'Kane, CAP, 2008
        Invitation to Computer Science (5th edition), Michael Schneider & Judith Gersting, Course Technology, 2010

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

10. Requested Effective Date or First Semester offered: Fall 2011

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	☐	Course Content
	Prefix/suffix	X	Course Learning Objectives
	Course number	?	References
	Units	☐	GE
	Staffing formula and enrollment limits	☐	Other ☐
X	Prerequisites/Corequisites	☐	Reactivate Course

    Catalog description
    Mode of Instruction

Justification: The course requires some previous experience with computers, for example knowing how to use a mouse and keyboard. The addition of the pre-requisite makes this clearer. An inappropriate course learning outcome has been removed. Unable to locate previous references so there may or may not be a change here.

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   6/9/10
_____   _____
Proposer(s) of Course Modification   Date

Type in name. Signatures will be collected after Curriculum approval.

Request for COMP 105: Computer Programmming Introduction to be added to GE Category B4: Computers and Information Technology.

Committee Response:
Approved by committee on 09-24-2010

Criteria and Justifications Submitted:

- *Promote the understanding and appreciation of the methodologies of math or science as investigative tools and the limitations of mathematical or scientific endeavors*
  Use of an algorithmic approach to problem solving. Course covers notion of complexity and limitations of computers.
- *Present mathematical or scientific knowledge in a historical prespective and the influences of math and science on the development of world civilizations, both past and present*
  Influence of computers on society in the last 60 years from code-breaking during World War II to today's connected society.
- *Apply inductive and deductive reasoning processes and explore fallacies and misconceptions in the mathematical or scientific areas*
  Equivalence of recursive and iterative process is demonstrated. Non-computable functions are discussed.
- *Include use of computers or information technology to solve problems as appropriate*
  Extensive use of computers in solving problems throughout the course.

Approval Sheet

Course: COMP 105

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