

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): 9/13/11; 10.11.11

PROGRAM AREA(S): COMPUTER SCIENCE AND INFORMATION TECHNOLOGY

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. 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.]*

- | | |
|---|---|
| <input type="checkbox"/> Course title | <input checked="" type="checkbox"/> Course Content |
| <input type="checkbox"/> Prefix/suffix | <input type="checkbox"/> Course Learning Outcomes |
| <input type="checkbox"/> Course number | <input checked="" type="checkbox"/> References |
| <input type="checkbox"/> Units | <input type="checkbox"/> GE |
| <input type="checkbox"/> Staffing formula and enrollment limits | <input type="checkbox"/> Other <input type="checkbox"/> |
| <input checked="" type="checkbox"/> Prerequisites/Corequisites | <input type="checkbox"/> Reactivate Course |
| <input type="checkbox"/> Catalog description | |
| <input checked="" type="checkbox"/> Mode of Instruction | |

Justification: Currently, BSIT students take COMP 151. We are modifying IT151 slightly to make it more appropriate for IT students and intend to replace COMP151 by IT151 in the BSIT degree. The mode change will allow students to have a supervised lab experience; in other courses we have found that this increase student success.

2. Course Information.

[Follow accepted catalog format.] (Add additional prefixes if cross-listed)

OLD

NEW

Prefix IT Course# 151
 Title Data Structures for IT Units (3)
 3 hours lecture per week
 hours blank per week

Prefix IT Course# 151
 Title Data Structures for IT Units (3)
 2 hours lecture per week
 3 hour laboratory per week

Prerequisites: COMP 150 or equivalent
 Consent of Instructor Required for Enrollment
 Corequisites:

Prerequisites: COMP 105 or equivalent
 Consent of Instructor Required for Enrollment
 Corequisites:

Catalog Description (Do not use any symbols):

Catalog Description (Do not use any symbols):

Introduction to data structures and the algorithms that use them. Review of composite data types such as arrays, records, strings and sets. Topics include: abstract data types, stacks, queues, linked lists, trees and graphs, recursion, and time complexity. No credit given toward Computer Science Degree.

Introduction to data structures and the algorithms that use them. Review of composite data types such as arrays, records, strings and sets. Topics include: abstract data types, stacks, queues, linked lists, trees and graphs, recursion, and time complexity. No credit given toward Computer Science Degree.

General Education Categories:
 Grading Scheme (Select one below):
 A – F
 Credit/No Credit
 Optional (Student’s Choice)

General Education Categories:
 Grading Scheme (Select one below):
 A – F
 Credit/No Credit
 Optional (Student’s Choice)

Repeatable for up to units
 Total Completions
 Multiple Enrollment in Same Semester Y/N

Repeatable for up to units
 Total Completions
 Multiple Enrollment in Same Semester Y/N

Course Level:
 Undergraduate
 Post-Baccalaureate
 Graduate

Course Level:
 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	24	y	Lecture	2	1	20	y	
Seminar		1			Seminar		1			
Lab		3			Lab	1	3	20	y	
Activity		2			Activity		2			
Field Studies					Field Studies					
Indep Study					Indep Study					
Other blank					Other blank					
Online					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

BSIT required course

NEW

BSIT required course

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

- X Requirement for the Major/Minor
- 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

1. Identify abstract data types.
2. Analyze simple computer program design.
3. Use link lists.
4. Use tree structures in an algorithm.
5. Use arrays in a computer program.
6. Use stacks and queues.
7. Analyze recursion in a computer program.
8. Represent graphs in a computer program.
9. Analyze the time complexity of an algorithm.

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

NEW

1. Identify abstract data types.
2. Analyze simple computer program design.
3. Use link lists.
4. Use tree structures in an algorithm.
5. Use arrays in a computer program.
6. Use stacks and queues.
7. Analyze recursion in a computer program.
8. Represent graphs in a computer program.
9. Analyze the time complexity of an algorithm.

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

OLD

1. Arrays and Vectors.
2. Linked Lists.
3. Binary Trees.
4. Heaps, Heapsort.
5. Graphs.
6. Algorithm design.
7. Debugging and Testing Code
8. Abstract Data Types

NEW

1. Arrays.
2. Linked Lists.
3. Binary Trees.
4. Sorting and searching
5. Graphs.
6. Algorithm design.
7. Debugging and Testing Code
8. Abstract Data Types

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 X No

If YES, what course(s) and provide a justification of the overlap. COMP 151. Provides similar content for the BSCS. But includes material not needed in the BSIT

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:
- C. Program responsible for staffing:

9. References. [Provide 3-5 references]

- OLD**
1. Data abstraction and problem solving with Java: Walls and mirrors, Carrano and Prichard, Addison-Wesley, 2001 ISBN 0201762207
 2. Data structures in Java, Dale, Joyce, Weems and Rebelsky, Jones and Bartlett, 2002, ISBN 0763710792

- NEW**
- 1 Problem solving and program design in C (6th edition), Hanly and Koffman, Addison-Wesley, 2010, ISBN 0321535421
 2. Programming in C (3rd edition), Kochan, SAM's publishing, 2004, ISBN 0672326663

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 No **X**

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

9/13/11

Proposer(s) of Course Modification

Date

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

Approval Sheet

Course: IT151

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