

CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS

COURSE MODIFICATION PROPOSAL

Courses must be submitted by October 15, 2014, and finalized by the end of the fall semester to make the next catalog (2015-16) production

DATE (CHANGE DATE EACH TIME REVISED): 10/14/2014, REV 2/4/15

PROGRAM AREA(S): COMPUTER SCIENCE COURSE NO: 105

Directions: All sections of this form must be completed. 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]

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

Justification: COMP 105 is a required course in BSIT, and not having it listed as IT 105 is confusing to BSIT students; hence, a request to cross-list with IT. "Introduction to Programming" is grammatically superior to "Computer Programming Introduction." The lab component is necessary for increasing the hands-on experience critical in acquiring programming skills.

The GE Committee asked us to add another GE outcome to keep up with the new GE guidelines, so we have added one extra outcome.

(Please provide justification(s) for each marked item above). Be as brief as possible but use as much space as necessary.]:

2. Course Information.

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

OLD

Prefix **COMP** Course# 105
 Title **Computer Programming Introduction** Units (3)
 3 hours lecture per week
 hours per week

Prerequisites: **Passing score on Entry Level Mathematics**

☐ Consent of Instructor Required for Enrollment

Corequisites: ☐

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.

General Education Categories: B4

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

Course Level:

☒ Undergraduate

NEW

Prefix **COMP/IT** Course# 105
 Title **Introduction to Programming** Units (3)
 3 hours lecture per week
 hours per week

Prerequisites: **Passing score on Entry Level Mathematics**

☐ Consent of Instructor Required for Enrollment

Corequisites: ☐

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.

General Education Categories: B4

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

Course Level:

☐ Undergraduate

☐ Post-Baccalaureate
Graduate

☐ 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	<u>3</u>	<u>1</u>	<u>24</u>	y	Lecture	<u>2</u>	<u>1</u>	<u>24</u>	y	
Seminar	<input type="text"/>	<u>1</u>	<input type="text"/>	<input type="text"/>	Seminar	<input type="text"/>	<u>1</u>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Lab	<input type="text"/>	<u>3</u>	<input type="text"/>	<input type="text"/>	Lab	<u>1</u>	<u>3</u>	<u>24</u>	<input type="text"/>	<input type="text"/>
Activity	<input type="text"/>	<u>2</u>	<input type="text"/>	<input type="text"/>	Activity	<input type="text"/>	<u>2</u>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Field Studies	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Field Studies	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Indep Study	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Indep Study	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other blank	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Other blank	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Online	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Online	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

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/ge>
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 (Graduation Writing Assessment Requirement)

Meets University Language Requirement

☐ **American Institutions, Title V Section 40404:** ☐ Government ☐ US Constitution ☐ US History
Regarding 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).

☐ **Online Course** (Answer YES if the course is ALWAYS delivered online).

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

OLD

The course is an introductory Computer Science course for computer science and other students. It is a required course for the Information Technology degree

X Requirement for the Major/Minor

NEW

The course is an introductory Computer Science course for computer science and other students. It is a required course for the Information Technology degree

X Requirement for the Major/Minor

☐ Elective for the Major/Minor
☐ Free Elective

☐ Elective for the Major/Minor
☐ Free Elective

Submit Program Modification if this course changes your program.

6. Student Learning Outcomes. (List in numerical order. Please refer to the Curriculum Committee's "Learning Outcomes" guideline for measurable outcomes that reflect elements of Bloom's Taxonomy: <http://senate.csuci.edu/comm/curriculum/resources.htm>. The committee recommends 4 to 8 student learning outcomes, unless governed by an external agency (e.g., Nursing).

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

OLD

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.
7. Reason inductively and deductively (GE 2.1).

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

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.
7. Reason inductively and deductively (GE 2.1).

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

OLD

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

NEW

1. Data Representation and Organization
2. Components of a typical computer system
3. Introduction to Operating Systems and Networks
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6. Functions and Procedures
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.

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 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

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

10. Tenure Track Faculty qualified to teach this course.

All CS faculty

11. Requested Effective Date or First Semester offered: Fall 2015

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 ☒

If, YES attach a program update or program modification form for all programs affected.

Deadline for New Minors and Programs: **October 1, 2014.**

Deadline for Course Proposals and Modifications, and for Program Modifications: **October 15, 2014.**

Last day to submit forms to be considered during the current academic year: **April 1, 2015.**

AJ Bieszczad

10/14/2014

Proposer(s) of Course Modification

Date

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

GE Committee response to your request have COMP105: Computer Programming Introduction added to B4: Computers and Information Technology

New Learning Outcomes approved by GE Committee for area B4 when cross-listing course with IT.

COMP/IT 105 forwarded to Curriculum Committee for review.

Course: COMP105 Computer Programming Introduction

Area: B4 Computers and Information Technology Date Submitted: 10/13/2014 11:58:34 PM Date Approved: 11/12/2014 8:59:28 PM

1. 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.

2. Present mathematical or scientific knowledge in a historical perspective 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.

3. 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.

4. 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.

The CI program review process includes a report from the respective department/program on its progress toward accessibility requirement compliance. By signing below, I acknowledge the importance of incorporating accessibility in course design.

Program Chair		
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Signature

Date

Program Chair		
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Signature

Date

Program Chair		
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Signature

Date

General Education Chair		
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Signature

Date

Center for Intl Affairs Director		
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Signature

Date

Center for Integrative Studies Director		
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Signature

Date

Center for Multicultural Engagement Director		
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Signature

Date

Center for Civic Engagement and Service Learning Director		
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Signature

Date

Curriculum Chair		
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Signature

Date

AVP		
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Signature

Date