CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS
COURSE MODIFICATION PROPOSAL

Courses must be submitted by November 2, 2009, to make the next catalog (2010--2011) production.

DATE (CHANGE DATE EACH TIME REVISED): 10/22/2009

PROGRAM AREA(S): COMPUTER SCIENCE

Directions: All of sections of this form must be completed for course modifications. All documents are stand alone sources of course information.

1. Course Information.

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

OLD
Prefix  COMP  Course#  420  Title Database Theory and Design  Units (3)
3 hours lecture per week  hours blank per week

NEW
Prefix  COMP  Course#  420  Title Database Theory and Design  Units (3)
3 hours lecture per week  hours blank per week

Prerequisites: COMP 350
Consent of Instructor Required for Enrollment
Corequisites: 

Catalog Description (Do not use any symbols): Database structure including: structure definition, data models, semantics of relations, and operation on data models. Database schemas: element definition, use and manipulation of the schema. Elements of implementation. Algebra of relations on a database. Hierarchical data bases. Discussion of information retrieval, reliability, protection and integrity of databases.

General Education Categories  
Lab Fee Requested
Course Level: Undergraduate  (Student’s choice)

Graded  Repeatable for up to units  Total Completions

Graded  Repeatable for up to units  Total Completions

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

<table>
<thead>
<tr>
<th>Existing</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units</td>
<td>Hours Per Unit</td>
</tr>
<tr>
<td>Lecture</td>
<td>3</td>
</tr>
<tr>
<td>Seminar</td>
<td></td>
</tr>
<tr>
<td>Lab</td>
<td></td>
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<tr>
<td>Activity</td>
<td></td>
</tr>
<tr>
<td>Field Studies</td>
<td></td>
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<tr>
<td>Indep Study</td>
<td></td>
</tr>
<tr>
<td>Other blank</td>
<td></td>
</tr>
</tbody>
</table>

3. Course Attributes:

9.15.08 km2
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.

- 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.

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

Submit Program Modification if this course changes your program.

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

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

1. Identify the components of a database system.
2. Represent information in the form of tables, records, and fields.
3. Be able to construct Entity Relation diagrams.
4. Be able to analyze and implement basic SQL queries.
5. Be able to integrate a database with a programming language.
6. Identify and represent system constraints.
7. Organize and express ideas clearly and convincingly in oral and written forms.

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

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2. Represent information in the form of tables, records, and fields.
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4. Be able to analyze and implement basic SQL queries.
5. Be able to integrate a database with a programming language.
6. Identify and represent system constraints.
7. 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
1. Components of a Database System.

NEW
1. Components of a Database System.
3. Tables, Records and Fields. 3. Tables, Records and Fields.
4. Integrity Constraints. 4. Integrity Constraints.
6. Table Unions and Joins. 6. Table Unions and Joins.

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]


9. Tenure Track Faculty qualified to teach this course.
   All CS Faculty.

10. Requested Effective Date or First Semester offered: fall 2010

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 [x] (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.]

<table>
<thead>
<tr>
<th>Course title</th>
<th>Course Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefix/suffix</td>
<td>Course Learning Objectives</td>
</tr>
<tr>
<td>Course number</td>
<td>References</td>
</tr>
<tr>
<td>Units</td>
<td>GE</td>
</tr>
<tr>
<td>Staffing formula and enrollment limits</td>
<td>Other [ ]</td>
</tr>
<tr>
<td>Prerequisites/Corequisites</td>
<td>Reactivate Course</td>
</tr>
<tr>
<td>Catalog description</td>
<td></td>
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<tr>
<td>Mode of Instruction</td>
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</table>

   Justification: This database theory and design course (COMP 420) requires the level of mathematical reasoning that a student will acquire in a discrete mathematics course. The prior prerequisite (COMP 350 Software Engineering) is not necessary because
it emphasizes software development as opposed to database design. COMP 420 requires the level of mathematical sophistication that is present in MATH 300 (Discrete Mathematics) or MATH 301 (Discrete Mathematics for IT).

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.
Priority deadline for New Minors and Programs: October 5, 2009 of preceding year.
Priority deadline for Course Proposals and Modifications: November 2, 2009.
Last day to submit forms to be considered during the current academic year: April 15th.

William J. Wolfe

Proposer(s) of Course Modification

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

10/22/2009

Date
Approval Sheet

Course:  
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