

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:

Prerequisites: **Math 300 or Math 301**
 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.

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General Education Graded Repeatable
 Categories CR/NC for up to units
 Lab Fee Requested A - F Total Completions
 Course Level: Multiple Enrollment in
 Undergraduate Optional (Student's choice) same semester
 Post-bac/Credential
 Graduate

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 Graduate

2. 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	<input type="checkbox"/>	Lecture	3	1	24	<input type="checkbox"/>	<input type="checkbox"/>
Seminar	<input type="checkbox"/>	1	<input type="checkbox"/>	<input type="checkbox"/>	Seminar	<input type="checkbox"/>	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lab	<input type="checkbox"/>	3	<input type="checkbox"/>	<input type="checkbox"/>	Lab	<input type="checkbox"/>	3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Activity	<input type="checkbox"/>	2	<input type="checkbox"/>	<input type="checkbox"/>	Activity	<input type="checkbox"/>	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Field Studies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Field Studies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Indep Study	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Indep Study	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other blank	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other blank	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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.

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>)

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

OLD

Through this course, students 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.

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

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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.

2. Representation of Constraints.
3. Tables, Records and Fields.
4. Integrity Constraints.
5. Entity Relation (ER) Diagrams.
6. Table Unions and Joins.

2. Representation of Constraints.
3. Tables, Records and Fields.
4. Integrity Constraints.
5. Entity Relation (ER) Diagrams.
6. Table Unions and Joins.

Does this course content overlap with a course offered in your academic program? Yes No
 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
 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 Fundamentals of Database Systems, Ramez Elmasri , Addison Wesley, 2002, 0-201-74153-9

NEW Fundamentals of Database Systems, Ramez Elmasri , Addison Wesley, 2002, 0-201-74153-9

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

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.]

- | | |
|---|---|
| <input type="checkbox"/> Course title | <input type="checkbox"/> Course Content |
| <input type="checkbox"/> Prefix/suffix | <input type="checkbox"/> Course Learning Objectives |
| <input type="checkbox"/> Course number | <input 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 type="checkbox"/> Mode of Instruction | |

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

10/22/2009

Proposer(s) of Course Modification

Date

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

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		
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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

Dean of Faculty		
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Signature

Date