

CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS

COURSE MODIFICATION PROPOSAL

Courses must be submitted by October 15, 2010, and finalized by the end of the fall semester to make the next catalog (2011-12) production

DATE (CHANGE DATE EACH TIME REVISED): 6/28/11

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 if cross-listed)

OLD

Prefix IT Course# 420 Title Database Theory and Design for IT Units (3)
3 hours lecture per week
[] hours blank per week

X Prerequisites: 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

General Education Categories []
[] Lab Fee Requested

Graded [] CR/NC [] Repeatable for up to [] units Total Completions []

X A - F [] Optional (Student's choice) [] Multiple Enrollment in same semester

Course Level: X Undergraduate [] Post-bac/Credential Graduate

NEW

Prefix IT Course# 420 Title Database Theory and Design for IT Units (3)
2 hours lecture per week
1 hour laboratory per week

X Prerequisites: Math 301 and Comp 151

[] 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

Graded [] CR/NC [] Repeatable for up to [] units Total Completions []

X A - F [] Optional (Student's choice) [] Multiple Enrollment in same semester

Course Level: X Undergraduate [] Post-bac/Credential 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	<u>3</u>	<u>1</u>	<u>24</u>	y	Lecture	<u>2</u>	<u>1</u>	<u>24</u>	y	[]
Seminar	[]	<u>1</u>	[]	[]	Seminar	[]	<u>1</u>	[]	[]	[]
Lab	[]	<u>3</u>	[]	[]	Lab	<u>1</u>	<u>3</u>	<u>24</u>	y	[]
Activity	[]	<u>2</u>	[]	[]	Activity	[]	<u>2</u>	[]	[]	[]
Field Studies	[]	[]	[]	[]	Field Studies	[]	[]	[]	[]	[]
Indep Study	[]	[]	[]	[]	Indep Study	[]	[]	[]	[]	[]
Other blank	[]	[]	[]	[]	Other blank	[]	[]	[]	[]	[]

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

Required course for the BSIT

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

NEW

Required course for the BSIT

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

Submit Program Modification if this course changes your program.

5. 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 the main components of a Database System.
2. Create a Entity-Relation diagram for a database system.
3. Normalize a given database design.
4. Create SQL queries that retrieve the appropriate data.
5. Create SQL queries that update the database.
6. Create SQL queries using inner and outer joins.
7. Design and implement a simple database system

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

NEW

1. Identify the main components of a Database System.
2. Create a Entity-Relation diagram for a database system.
3. Normalize a given database design.
4. Create SQL queries that retrieve the appropriate data.
5. Create SQL queries that update the database.
6. Create SQL queries using inner and outer joins.
7. Design and implement a simple database system

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

OLD

1. Integrity Constraints.
2. File Systems and Databases.
3. Database Models.
4. Logical Views of Data.
5. Data Redundancy Issues.
6. Entity-Relationship Modeling.

NEW

1. Integrity Constraints.
2. File Systems and Databases.
3. Database Models.
4. Logical Views of Data.
5. Data Redundancy Issues.
6. Entity-Relationship Modeling.

- 7. Normalization of Database Designs.
- 8. ER-Diagrams
- 9. First, Second and Third Normal Forms.
- 10 SQL.
- 11 Database Access Control and Authentication

- 7. Normalization of Database Designs.
- 8. ER-Diagrams
- 9. First, Second and Third Normal Forms.
- 10 SQL.
- 11 Database Access Control and Authentication

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**
- 1. Fundamentals of Database Systems (6th ed) Ramez Elmasri Addison Wesley Higher Education 2010 0136086209
 - 2. Database Systems 6th Edition Peter Rob, Carlos Coronel Course Technology 2004 061921323X
 - 3. Database Systems: The Complete Book (2nd ed) Garcia-Molina, Ullman and Widom. Prentice Hall 2008 0131873253

- NEW**
- 1. Fundamentals of Database Systems (6th ed) Ramez Elmasri Addison Wesley Higher Education 2010 0136086209
 - 2. Database Systems 6th Edition Peter Rob, Carlos Coronel Course Technology 2004 061921323X
 - 3. Database Systems: The Complete Book (2nd ed) Garcia-Molina, Ullman and Widom. Prentice Hall 2008 0131873253

9. Tenure Track Faculty qualified to teach this course.

All Computer Science faculty.

10. Requested Effective Date or First Semester offered: Fall 2012

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 Outcomes |
| <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 | |

X Mode of Instruction

Justification: 1. Added Comp 151 pre-requisite so students have background in data structures
2. Significant programming projects are an important focus of the course. In order for students to succeed in the course there needs to be significant instructor assistance in orienting students to the problem domains in a hands-on manner. A scheduled laboratory provides the time for this.

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 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

6/28/11

Proposer(s) of Course Modification

Date

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

Approval Sheet

Course: IT420

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