CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS
COURSE MODIFICATION PROPOSAL
**Courses must be submitted by October 15, 2010,
to make the next catalog (2011-12) production**

DATE (CHANGE DATE EACH TIME REVISED): 6/14/10; REV 9.20.10; REV 12.9.10
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 i f cross-listed*)

OLD	NEW
Prefix COMP Course# 420 Title Database Theory and Design Units (3)	Prefix COMP Course# 420 Title Database Theory and Design Units (3)
3 hours lecture per week	3 hours lecture per week
hours blank per week	hours blank per week
X Prerequisites: MATH 300 or MATH 301	X Prerequisites: MATH 300 or MATH 301 and Comp 151
Consent of Instructor Required for Enrollment	Consent of Instructor Required for Enrollment
Corequisites:	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.	**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.

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

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

2. **Mode of Instruction (Hours per Unit are defaulted)**   **Hegis Code(s)**_____
(Provided by the Dean)

Existing

	Units	Hours Per Unit	Benchmark Enrollment	Graded
Lecture	**3**	**1**	**24**	y
Seminar		**1**		
Lab		**3**		
Activity		**2**		
Field Studies				
Indep Study				
Other blank				

Proposed

	Units	Hours Per Unit	Benchmark Enrollment	Graded	CS No. (filled out by Dean)
Lecture	**3**	**1**	**24**	y	
Seminar		**1**			
Lab		**3**			
Activity		**2**			
Field Studies					
Indep Study					
Other blank					

3. **Course Attributes:**

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.

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

NEW
The course is a required course for Computer Science majors according to accreditation guidelines.

X Requirement for the Major/Minor
X 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 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:

NEW
1. Identify the components of a database system.
2. Represent information in the form of tables, records, and fields.
3. Construct table design diagrams.
4. Analyze and implement basic sql queries.
5. Integrate a database with a programming language.
6. Identify and represent system constraints.
7. Synthesize and articulate 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.

2. Representation of Constraints.	2. Representation of Constraints.
3. Tables, Records and Fields.	3. Tables, Records and Fields.
4. Integrity Constraints.	4. Integrity Constraints.
5. Entity Relation (ER) Diagrams.	5. Entity Relation (ER) Diagrams.
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]*

 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 Computer Science faculty

10. Requested Effective Date or First Semester offered: Fall 2011

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** ☐ **(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.]*

☐	Course title	☐	Course Content
☐	Prefix/suffix	X	Course Learning Objectives
☐	Course number	☐	References
☐	Units	☐	GE
☐	Staffing formula and enrollment limits	☐	Other ☐
X	Prerequisites/Corequisites	☐	Reactivate Course
☐	Catalog description		
☐	Mode of Instruction		

 Justification: Until there are sufficient IT majors, we cannot offer IT420; we allow IT majors to take COMP 420 instead.

We removed COMP 350 as a prerequisite because IT majors are not required to take it. Unfortunately, students are now attempting to enroll without having completed the Data Structures class that was a pre-requisite to COMP 350. Knowledge of data structures is essential when studying Databases. The change restores a Data Structures pre-requisite.

Reworded learning outcome to make it more general.

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   6/14/10

Proposer(s) of Course Modification   Date
Type in name. Signatures will be collected after Curriculum approval.

Approval Sheet

Course: COMP 420

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