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): 9/23/10 REV 10/18/10; REV 12.15.10

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

Prefix IT Course# 424 Title Computer System Security for IT
Units (3)
3 hours lecture per week
hours blank per week

X Prerequisites: IT429
Consent of Instructor Required for Enrollment
Corequisites:

Catalog Description (Do not use any symbols):
Security techniques and practices in operating systems, databases and computer networks. Analysis of formal security models. Introduction to the OSI Security Architecture, cryptography, public key security systems and firewalls.

General Education Categories
Lab Fee Requested

Graded
CR/NC
X A - F

Repeatable for up to units
Total Completions
Multiple Enrollment in same semester

Course Level:
X Undergraduate
Post-bac/Credential
Graduate

Optional (Student's choice)

NEW

Prefix IT Course# 424 Title Computer System Security for IT
Units (3)
3 hours lecture per week
hours blank per week

X Prerequisites: IT151 or IT152
Consent of Instructor Required for Enrollment
Corequisites:

Catalog Description (Do not use any symbols)**:**
Security techniques and practices in operating systems, databases and computer networks. Analysis of formal security models. Introduction to the OSI Security Architecture, cryptography, public key security systems and firewalls.

General Education Categories
Lab Fee Requested

Graded
CR/NC
X A - F

Repeatable for up to units
Total Completions
Multiple Enrollment in same semester

Course Level:
X Undergraduate
Post-bac/Credential
Graduate

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	30	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:

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	**NEW**
BSIT Elective	BSIT Elective
Requirement for the Major/Minor	Requirement for the Major/Minor
X Elective for the Major/Minor	X Elective for the Major/Minor
Free Elective	Free Elective

Submit Program Modification if this course changes your program.

5. Student Learning Outocmes. (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:	Upon completion of the course, the student will be able to:
OLD	**NEW**
1. List the layers in the OSI Security Architecture.	1. Describe the layers in the OSI Security Architecture.
2. Explain the Symmetric Cipher Model.	2. Explain the Symmetric Cipher Model.
3. Explain the Data Encryption Standard (DES).	3. Evaluate the Data Encryption Standard (DES).
4. Explain the Public-Key encryption method.	4. Explain the Public-Key encryption method.
5. Describe the fundamental concept behind the RSA algorithm.	5. Describe the fundamental concept behind the RSA algorithm.
6. Explain simple Message Authentication methods.	6. Evaluate simple Message Authentication methods.
7. Explain basic Mail security methods.	7. Evaluate basic Mail security methods.
8. Explain the IP security architecture.	8. Describe the IP security architecture.
9. Explain basic web security techniques	9. Evaluate basic web security techniques

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

OLD	**NEW**
1. Overview of Network Security.	1. Overview of Network Security.
2. The OSI Security Architecture.	2. The OSI Security Architecture.
3. Classical Encryption Techniques.	3. Classical Encryption Techniques.
4. Block Ciphers.	4. Block Ciphers.
5. Data Encryption Standards.	5. Data Encryption Standards.
6. Finite Fields.	6. Finite Fields.

7. Symmetric Ciphers.
8. Public-Key Encryption.
9. Public-Key Cryptography and RSA.
10. Message Authentication.
11. Mail Security.
12. IP Security.
13. Web security.
14. Firewalls.

7. Symmetric Ciphers.
8. Public-Key Encryption.
9. Public-Key Cryptography and RSA.
10. Message Authentication.
11. Mail Security.
12. IP Security.
13. Web security.
14. Firewalls.

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

1. Secure Electronic Commerce Warwick Ford, Michael Baum Prentice Hall 2001 0130272760
2. Hacking for Dummies Kevin Beaver Wiley 2004 076455784x
3. Cryptography and Network Security W. Stallings Prentice Hall 2003 0130914290
4. Malicious Mobile Code R. A. Grimes O'Reilly 2001 156592682X

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NEW

1. Secure Electronic Commerce Warwick Ford, Michael Baum Prentice Hall 2001 0130272760
2. Hacking for Dummies Kevin Beaver Wiley 2004 076455784x
3. Cryptography and Network Security (5th ed) W. Stallings Prentice Hall 2010 0136097049
4. Malicious Mobile Code R. A. Grimes O'Reilly 2001 156592682X

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

Justification: Knowledge of the material in IT429 (Networks) is not required in order to take this course; however, programming ability is needed so the pre-requisite is adjusted. Course Learning Outcomes have been reworded to make them more assessable. Reference updated.

13. Will this course modification alter any degree, credential, certificate, or minor in your program? Yes [ ] **No** [X]
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 — 10/18/10

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

Approval Sheet

Course: IT424

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