California State University DOMINGUEZ HILLS

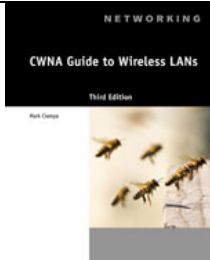**College of Natural and Behavioral Sciences**
Department of Computer Science
http://csc.csudh.edu

COURSE TITLE:	Special Topics-Wireless Security
COURSE NUMBER:	**CTC 395**
INSTRUCTOR NAME:	**MEHRDAD S SHARBAF, PH.D. MSHARBAF@CSUDH.EDU, OFFICE: ROOM SAC1115, PHONE: 310-243-3398, OFFICE HOURS: TBA**
DATE:	FALL SEMESTER, 2016
COURSE LENGTH:	__15__ WEEKS
WEB COMPANION	**N/A**
BLACKBOARD WEB SITE	**HTTP://toro.csudh.edu**
COURSE SCHEDULE:	WED→ 7:00pm-9:45pm
UNIT OF ACADEMIC MEASUREMENT (SELECT ONE):	___ QUARTER SYSTEM __X SEMESTER SYSTEM
PREREQUISITES:	**CSC116, CTC228**
COURSE DESCRIPTION:	• This course focuses on the wireless LAN technology. The course covers fundamental topics, such as planning, designing, installing, securing, and configuring wireless LANs. It also details common wireless LAN uses including maintenance, security, and business applications. The students are exposed to different tools related to wireless security and forensics. Also course covers the basic concepts of mobile device forensics, and describes procedures for acquiring data from cell phones and mobile devices.

	TEXTBOOKS AND MATERIALS	(CHECK ONE)	
		REQUIRED	OPTIONAL (SUPPLEMENTAL)
TEXTBOOK (S)	CWNA Guide to Wireless LANs, 3rd Edition Mark Ciampa ISBN-13: 9781133132172 514 Pages | © 2013 | Published	✓	
References	HAND OUT	✓	
RESOURCES & SUPPLIES	An Internet browser (e.g. Internet Explorer), connection to the Internet. A storage device for your files (Flash Drive).	✓	

PERFORMANCE OBJECTIVES: **Upon completion of this course, the student should be able to do the following:**

- Explain how the major wireless technologies are used today
- List and explain the advantages of wireless technology
- Describe the different types of wireless attacks
- List the legacy IEEE security protections
- Explain the vulnerabilities of wireless transmissions
- Describe the encryption and authentication features of IEEE 802.11i/WPA2
- List the features of wireless intrusion detection and wireless intrusion prevention systems
- Explain the features of wireless security tools
- Explain the basic concepts of mobile device forensics
- Describe procedures for acquiring data from cell phones and mobile devices

| **INSTRUCTIONAL METHODS:** | ✓ This course will be delivered through the use of lectures, presentations, demonstrations, discussions, and limited hands-on experience.
✓ Practice: |

GRADING: Student performance will be evaluated based upon the following criteria: Evaluation of the course will include any class assignments or deliverable exercises, and the projects. The instructor will supply the students with a full grading scheme at the beginning of the course.

Quizzes	100
Test I, II	200
Final Exam	200
Group Projects Activity	200
Group Case Presentation	100
Class Activity	100
Total:	900

Grading Scheme:

96-100%	A	73-76%	C
90-95%	A-	70-72%	C-
87-89%	B+	67-69%	D+
83-86%	B	61-66%	D
80-82%	B-	< 60%	F
77-79%	C+		

COURSE POLICIES: **Late and Incomplete Deliverables:**

- Deliverables (Class Assignments, Projects) submitted late are not accepted.
- Deliverables (Class Assignment, Projects) not submitted before the end of the final class will earn 0%.
- Any exceptional, non-academic circumstances need to be discussed with the instructor as soon as they arise, prior to the due date of the deliverable. At the time of the discussion, NO make-up work will be assigned.
- The instructor reserves the right not to award credit for deliverables that are incomplete. Partial credit is awarded at the instructor's discretion, and only for work that merits such an award. Assignments that are incomplete or incongruous with the specifications may be returned to the student.

ATTENDANCE: Students are required to be prepared and attend all classes. The attendance policy is strictly enforced, and poor attendance may adversely affect your final grade due to class assignments.

MAKE-UP WORK: There will be no makeup or early examinations and late assignments will not be accepted.

ACADEMIC INTEGRITY: Academic integrity is of central importance in this and every other course at CSUDH. You are obliged to consult the appropriate sections of the University Catalog and obey all rules and regulations imposed by the University relevant to its

lawful missions, processes, and functions.

All work turned in by a student for a grade must be student'' own work. Plagiarism and cheating (e.g. stealing or copying the work of others and turning it in as your own) will not be tolerated, and will be dealt with according to University policy. The consequences for being caught plagiarizing or cheating range from a minimum of a zero grade for the work you plagiarized or cheated on, to being dropped from the course.

ADA STATEMENT: Students with disabilities, who believe they may need an academic adjustment in this class, are encouraged to contact Disabled Student Services as soon as possible to better ensure receipt of timely adjustments.

QUIZZES: Quizzes will be given throughout the semester, at a rate of approximately 1 per chapter. Quizzes will always cover the material covered since the last Quiz or Exam. The quizzes will be combinations of objective and multiple choice questions. Makeup quizzes will not be given. Any class material missed by the student is the student's responsibility to acquire.

MIDTERM & FINAL EXAM: Test exam is during the 7th, and 12th week of the class and the date for the final exam is based on the final examination schedule printed in the campus Class Schedule. All projects are due no later than the last week of the semester.

Tentative Course Schedule

WEEK #	DATE	TOPIC	Reading Assignment/ Computer Lab Topic/In Class Assignments
Week 1	8/24/15	Introduction to the course/The World of Wireless	Chapter 1
Week 2	8/31/2016	Wireless Local Area Networks	Chapter 2/ Quiz 1/Class Activity
Week 3	9/7/2016	Radio Frequency Fundamentals	Chapter 3/Quiz 2 /Class Activity
Week 4	9/14/2016	Antennas	Chapter 4/Quiz 3/Class Activity
Week 5	9/21/2016	Physical Layer Standards.	Chapter 5/Quiz 4/Class Activity
Week 6	9/28/2016	Medium Access Control Layer Standards.	Chapter 6/Quiz 5/Class Activity
Week 7	10/5/2016	**Test I**	Covers Chapters 1-6/Class Activity
Week 8	10/12/2016	Wireless LAN Management and Architectures.	Chapter 7/ Class Activity
Week 9	10/19/2016	Wireless LAN Security Vulnerabilities	Chapter 9 / Quiz 6/Class Activity
Week 10	10/26/2016	Implementing Wireless LAN Security	Chapter 10/Quiz 7
Week 11	11/2/2016	Managing a Wireless LAN	Chapter 11/ Quiz 8/Class Activity
Week 12	11/9/2016	**Test II**	
Week 13	11/16/2016	Wireless Forensics	Covers Chapters 7-11/Class Activity
Week 14	11/23/2016	Wireless Forensics	Hand out/ Quiz 9/Class Activity
Week 15	11/30/2016	Group Case Project Presentation	Hand out/ Quiz 10/Class Activity
	12/7/2016	**No Classes**	
Week 16	12/14/2016	**Final Exam Week**	**Final Exam covers all the chapters, *Due for Group Project Activity Report***

GO TOROS!