USF

UNIVERSITY OF SOUTH FLORIDA

COLLEGE OF ENGINEERING

COP 4931 – 3 Credit Hours
Mobile & Wireless Security
Fall, 2017

Instructor

Classroom

E-Mail _____

Day/Time

Office Hours:

PREREQUISITES: *Consult your Advisor for the latest prerequisites*

COURSE DESCRIPTION:

COURSE TOPICS:

COURSE OBJECTIVES:

BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY MISSION STATEMENT

BACHELOR OF SCIENCE IN INFORMTION TECHNOLOGY PROGRAM LEARNING OUTCOMES

COURSE STUDENT LEARNING OUTCOMES

TEXT AND MATERIALS

Alfa model AWUS036NEH.

Figure 1 Required Alfa WLAN USB Adapter

Figure 2 Whitehatters Computer Security Club (WCSC) participating in a Capture the Flag (CTF) competition

GRADING, EVALUATION AND ATTENDANCE POLICIES

unless prior permission has been granted by your Instructor

Assignment	Percentage of grade
Total	**100%**

Tests – 60%

Quizzes, Assignments, and Participation – 40%

Incomplete Grade

a small amount of work

Please note that it is the student's responsibility to ensure that work is completed before the end of the following semester and the Incomplete changed to a regular grade. If this is not done before the end of the following semester, the Incomplete automatically becomes an F.

Attendance Policy
The class will be completely asynchronous. There is no live lecture attendance requirement. All lectures will be recorded in Blackboard Collaborate sessions available in MP4 format. I will also post PowerPoint slides for all of the lectures.

Important dates
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NOTE: WORK THE MODULES IN ORDER. DO NOT ATTEMPT ANY ASSIGNMENTS
WITHOUT FIRST WATCHING THE VIDEO LECTURES.

A   B   6 learning modules, 2 hands-on labs, 3 assignments, and 1 test

Make sure you are familiar with the assignments section on Canvas and the due dates for each.

There will also be a course underline discussion board online where students can share and comment on pertinent issues in mobile and wireless security to gain class participation credit. *This is a graded assignment.*

Course Part A:

Module 1: Security services, threats, vulnerabilities, and risks

Assignment 1: Mobile and Wireless Threat Report

Module 2: Foundations of cryptography and cryptographic protocols

Module 3: Cryptographic protocols for Mobile & Wireless

Lab 1: GSM Rainbow Tables
Assignment 2: Lab 1 Report

Module 4: Mobile networks security controls for administration, communications, and data

Module 5: Mobile device management and host-based mobile device security controls

Module 6: Application security, Mobile malware

Lab 2: Creating a mobile app and analyzing it for security
Assignment 3: Lab 2 Report.

Test #1 on Part A – online via MyUSF

Students must take this test by the due date.

Course Part B:

Module 7: 802.11 wireless networks architecture and evolution

      Lab 3: Wireless networking
      Assignment 4: Lab 3 Report.

Module 8: Other wireless networks architectures (Bluetooth, Thread, LoRAWAN)

Module 9: Hacking threats and countermeasures for 802.11 wireless networks

      Lab 4: Wireless hacking
      Assignment 5: Lab 4 Report.

Module 10: Hacking threats and countermeasures for wireless networks, Pt. 2

Module 11: IOT Threats and Countermeasures

Module 12: Emerging topics in mobile & wireless security
      Assignment 6:

Test #2 – online via MyUSF

Students must take this test by the due date.

USF SYSTEM POLICIES

    A. Academic Dishonesty

    B. Academic Disruption

    C. Contingency Plans

    D. Disabilities Accommodation

    F. Religious Observances

    H. Web Portal Information:

GENERAL INSTRUCTION FOR STUDENTS

Blackboard Collaborate