CNIT 140: IT Security Practices

Spring 2018 - Sam Bowne

38347 501 Lec M 06:10-
09:00PM MUB 180

Purpose of Class

Training students for cybersecurity competitions, including CTF events and the Collegiate Cyberdefense Competition (CCDC). This training will prepare students for employment as security professionals, and if our team does well in the competitions, the competitors will gain recognition and respect which should lead to more and better job offers.

The primary focus of this class is hands-on defense of systems. Students will work in groups configuring servers, firewalls, routers, switches, and other systems to resist attacks.

Live Streaming

You can attend class remotely using a PC, Mac, Linux, iOS or Android: https://zoom.us/j/4108472927

Textbook

There will be no textbook. We will use online tutorials and CTFs instead.

Catalog Description

This course explores techniques used by hackers to access protected data. Students will learn about cybercrime laws, penalties and organizations defending civil liberties of citizens. Students will learn about the various methodologies hackers use to gain access to confidential data such stealthy network recon, passive traffic identification, etc. CSU

Advisory: CNIT 123 or equivalent familiarity with hacking techniques

Class Schedule (may be revised)

Date	Topic
Mon Jan 22	**First Class: Cybercompetitions: CCDC, CPTC, & NCL** **Class Structure and Grading**
Mon Jan 29	**Practice 1**
Mon Feb 5	**Practice 2**
Mon Feb 12	**Practice 3**
Mon Feb 19	*Holiday: No Class*
Mon Feb 26	**Practice 4** **NCL Registration Starts**
Mon Mar 5	**Practice 5**
Mon Mar 12	**Practice 6**
Mon Mar 19	**Practice 7**
Mon Mar 26	*Holiday: No Class*
Mon Apr 2	**Guest TBA**
Mon Apr 9	**Practice 8**
Mon Apr 16	**Practice 9**
Mon Apr 23	**Practice 10**
Mon Apr 30	**Practice 11**
Mon May 7	**Practice 12**
Mon May 14	**Last Class: Make-Up & Extra Credit**
Mon May 21	**Final Exam Day: Make-Up & Extra Credit**

Practice Sites

picoCTF

General CTF Prep

Bandit

Linux command-line

Infosec Institute

General CTF Prep

Pwnable KR

Binary Exploitation

We Chall

Many Types of Challenges