CIS3360: Security in Computing

Spring 2012

Instructor: Dr. Cliff Zou (HEC 243), 407-823-5015, czou@eecs.ucf.edu

Course Recording Time: MoWe 2:00PM - 3:15PM,
Available on UCF Tegrity server (approximately) at 5PM

Office Hour: MoWe 9:00AM – 11:00AM in my office

Course Webpage: http://www.cs.ucf.edu/~czou/CIS3360/

Prerequisite: COP 3223, or EGN 3211 or CET 2364 (C programming)

Description:

Security theory. Legal and human factors, Malware, Intrusion patterns and tools, Windows, Unix, TCP/IP, and applications vulnerabilities. Detection. Policies and enforcement, Protection and assurance.

Students will be able to:

- Explain what security in networked computing systems means.
- Perform base conversions and arithmetic operations in computer number systems.
- Describe at a high level vulnerabilities and threats in the Internet and networked computing systems.
- Encrypt, decrypt and transmit messages using cryptographic techniques.
- Apply methods to detect, prevent and repair attacks in networked computing systems.
- Determine when cyber activities are illegal and criminal. Identify the laws and codes of ethics governing the protection of information through copyrights, patents, trade secrets, and trademarks.

Video Streaming:

We will use UCF Tegrity system. Tegrity videos can be accessed via a link in WebCourse, or directly via this link: https://tegrity.ucf.edu/TegrityUtils/Login.aspx

Textbooks:

M. Goodrich and R. Tamassia **Introduction to Computer Security**
Addison Wesley, 2011, (ISBN -13: 978-0-321-51294-9)

Reference Textbook:

- J. Kurose and K. Ross, **Computer Networking – A Top-Down Approach**, Fifth Edition, Addison-Wesley, 2010.
- C. Pfleeger and S. Pfleeger, **Security in Computing**, Fourth Edition, Prentice Hall, Inc., 2007.
- Peter Szor, **The Art of Computer Virus Research and Defense**, Symantec Press, Addison-Wesley, 2005.
- M. Quinn, **Ethics for the Information Age**, Third Edition, Addison-Wesley, 2009.

Grading Policy:

The final grade will use +/- policy, i.e., you may get A, A-, B+, B, B- … grade.

Coursework	Approximate amount	approximate percentage
written homework	4	30%
Programming projects	2	25%
Midterm exam	2	25%
Final exam	1	20%

Assignment and Exam Format:

Homework assignments and programming projects are released and must be submitted via UCF WebCourse. You must submit them according to the described deadline, even with partial solutions. Don’t wait until the last minute to submit in case you have trouble to access WebCourse. Midterm and final exams will also be released on WebCourse like homework, but are due within the next 24 hours and you are not allowed to discuss exam questions with anyone.

Academic Honesty

Plagiarism and Cheating of any kind on an examination, quiz, or assignment will result at least in an "F" for that assignment (and may, depending on the severity of the case, lead to an "F" for the entire course) and may be subject to appropriate referral to the Office of Student Conduct for further action. See the UCF Golden Rule for further information. I will assume for this course that you will adhere to the academic creed of this University and will maintain the highest standards of academic integrity