CPSC 420/620
Computer Security Principles
TuTh 8:00-9:15
Fall 2012

Professor: H. C. Grossman
Office: 212 McAdams Hall
Office Hours: TT 10:00 - 11:00 or by appointment
Phone: 656-5863
E-MAIL: grossman@cs.clemson.edu
URL: http://cpsc420.cs.clemson.edu/
Wait: 15 minutes
Attendance: Mandatory

TEXT:
Introduction to Computer Security, Matt Bishop, Addison Wesley
Security in Computing, Pfleeger, Pfleeger, Prentice Hall

COMPUTING FACILITY:
I will communicate with you via electronic mail. Please make sure that you either check your main frame e-mail or have that e-mail forwarded to an account that you do check regularly. We will be doing security experiences outside of class. This will require you to either have your own computer or to use the computers in the labs.

GRADING 420:
Project (1 - Paper and Presentation), homework, etc ................................................................. 100 pts
SANS NewsBytes (10) ................................................................................................................... 100 pts
Laboratory Experience ............................................................................................................... 250 pts
Blackboard Quizzes (15) .......................................................................................................... 100 pts
Quizzes (2) Oct 11, Nov 29 ...................................................................................................... 250 pts
Final (Friday, December 14, 2012, 7:00-9:30 p.m.) .................................................................. 200 pts

GRADING 620:
Project (2 - Papers and Presentations), homework, etc............................................................. 150 pts
SANS NewsBytes (10) ................................................................................................................ 100 pts
Laboratory Experience ............................................................................................................. 250 pts
Blackboard Quizzes (15) .......................................................................................................... 100 pts
Quizzes (2) Oct 11, Nov 29 ...................................................................................................... 200 pts
Final (Friday, December 14, 2012, 7:00-9:30 p.m.) ................................................................. 200 pts

You have 3 business days after a graded assignment (laboratory experience, quiz, or paper) has been returned to the class to challenge any grading of that assignment.

Several times throughout the semester I will be taking attendance quizzes. These quizzes will be worth 5 points each and will directly add into your final point total. I grade on a straight scale of 900-1000 pts will be an A; 800-899 pts will be a B; etc. I normally curve the class below a straight scale. To qualify for the curve and to qualify for the attendance quizzes being directly added into your final point total, you must not miss more than 1 attendance quiz.
COURSE GOALS:
To provide the student with an understanding of the principles of computer security

ACROBAT® CONNECT™:
As part of the delivery of the course materials, I will be using the Adobe Connect System. This system will allow you to attend class from a remote location that has an internet connection at the DSL or better speed. This system also allows me to record the class presentation so that you can listen to the lecture at a later time. If you plan on using this system remotely, you must have a microphone available for your computer so that you can fully participate in the class. If you do not have your microphone active, I will remove you from the Connect session. If there is a problem with the live Connect session, you may call 864-986-9615 to report that problem.

TOPICS:
Basic Concepts
Access Control Mechanisms
System Security Practice
Policies
Access Control Lists
Vulnerability Analysis
Security
Locks and Keys
Auditing
Confidentiality
Confinement Problem
Intrusion Detection
Integrity
Isolation
Network Security Design Case
Hybrid
Covert Channels
Study
Cryptography
Assurance
Authentication
Classical Systems
Evaluating Systems
Policies
Key Management
TCSEC
Design
Secure Electronic Mail
FIPS
Attackers
Authentication
Authentication
Biometrics
Trojan Horses
Processors
Design Principles
Viruses
Authentication
Representing Identity
Worms
Processes
Access Control Mechanisms
Defenses

BLACKBOARD QUIZZES:
There are 15 Blackboard quizzes that must be completed by the dates indicated below. You will get two attempts at each quiz with the last quiz score being the one that is counted. The questions are randomly chosen from a larger pool of questions. Each quiz covers the material indicated below:

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**OFFICE OF STUDENT DISABILITY SERVICES**

It is University Policy to provide, on a flexible and individualized basis, reasonable accommodations to students who have disabilities. Students are encouraged to contact Student Disability Services to discuss their individual needs for accommodation.

**ACADEMIC INTEGRITY:**

As members of the Clemson University community, we have inherited Thomas Green Clemson’s vision of this institution as a ‘high seminary of learning.’ Fundamental to this vision is a mutual commitment to truthfulness, honor, and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a Clemson degree. Therefore, we shall not tolerate lying, cheating, or stealing in any form.

From the Academic Integrity Policy:
- Any breach of the principles outlined in the Academic Integrity Statement is considered an act of academic dishonesty.
- Academic dishonesty is further defined as:
  - Giving, receiving, or using unauthorized aid on any academic work;
  - Plagiarism, which includes the copying of language, structure, or ideas of another and attributing the work to one's own efforts;
  - Attempts to copy, edit, or delete computer files that belong to another person or use of Computer Center account numbers that belong to another person without the permission of the file owner, account owner or file number owner;
- All academic work submitted for grading contains an implicit pledge and may contain, at the request of an instructor, an explicit pledge by the student that no unauthorized aid has been received.
- It is the responsibility of every member of the Clemson University community to enforce the Academic Integrity Policy.

When in the opinion of a faculty member, there is evidence that a student has committed an act of academic dishonesty, the faculty member shall make a formal written charge of academic dishonesty including a description of the misconduct, to the Dean of the Graduate School. At the same time, the faculty member may, but is not required to, inform each involved student privately of the nature of the alleged charge.

**SCHOOL OF COMPUTING’S ACADEMIC HONESTY POLICY:**

Since the Computer Science Division in the School of Computing is part of the University, the general academic policies on cheating and plagiarism apply within the Division. The following statements reflect the division’s interpretation of university policy; but in any case where current university policy differs from the following statements, university policy takes precedence.

See the School Statement for additional integrity considerations.

Specifically, for this class: Publicly-available code or other material may be freely used if appropriately attributed. Each team is responsible for protecting his or her files from access by others. Work that is essentially the same and submitted without proper attribution is considered to be a violation of the academic integrity policy by all those knowingly submitting the same work, regardless of whom actually did the work, i.e. the giver is just as guilty as the receiver.