ITIS 3200 – Introduction to Information Security and Privacy

UNC CHARLOTTE
DEPARTMENT OF SOFTWARE AND INFORMATION SYSTEMS

MON & WED 3:30 PM - 4:45 PM WOODWARD 155
Professor Mohamed Shehab
Office: Woodward Hall Room 333F
Course office hours WED 1:00-3:00 PM or by appointment; e-mail all times
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This handout contains information on syllabus together with policies and expectations for the course. Please read the entire document carefully before continuing in this course. The policies and expectations are intended to create a productive learning atmosphere for all students. To participate in the course, students are prepared to abide by these policies and expectations

DESCRIPTION:
ITIS 3200 is a 3-credit course. This course provides an introductory overview of key issues and solutions for information security and privacy. Topics include security concepts and mechanisms; security technologies; authentication mechanisms; mandatory and discretionary controls; basic cryptography and its applications; intrusion detection and prevention; information systems assurance; anonymity and privacy issues for information systems. Content varies depending on faculty interests, research developments, and student demand. The course provides the students with hands-on experience in secure system development through a project.

PREREQUISITES:
Undergraduate level ITCS 1215 Minimum Grade of D or Undergraduate level CSCI 1215 Minimum Grade of D. If you do not have this background you are required to file a “SPECIAL REQUEST” form and get the department approval.

TOPICS:
1. Security Concepts and Principles
2. Access Control Basics
   a. Access Control Matrix
   b. Access Control List
3. Security Policies
   a. Confidentiality Policies
   b. Integrity Policies
   c. Hybrid Policies
4. Basic Cryptography
   a. Classical Cryptosystems
   b. Public Key Cryptography
   c. Cryptographic Checksums
   d. Key Management
   e. Digital Signatures
   f. Cipher Techniques
5. Authentication Mechanisms
6. Design Principles
7. Identity Management

SCHEDULE:
- First Day of Class: January 10, 2011.
- No Class (Thanksgiving Break): March 7-12, 2011.
- Class Presentation Sessions: April 11 - May 02, 2011.
- Final Report due: May 02, 2011.
- Last Day of Classes: May 03, 2011.
- Reading Day: May 04, 2011.
- Final Exam: May 11, 2011 (2:00pm-4:30pm)

RECOMMENDED COURSE TEXTBOOK:
Introduction to Computer Security by Matt Bishop, Addison-Wesley, ISBN-10: 0321247442,

GRADING POLICY:
Grades are based on exams (mid-term exam 30% and final exam 40%) and a term project 30% 
(project presentation 10% and project report 20%).

Typically, A will be given for a total of 90 and above, B will be given for a total of 80 and 
above, C will be given for a total of 70 and above, D will be given for a total of 60 and above.

Important Notes:
1) Due to the large size of the classes, there will be no makeup examinations for those who 
fail to show up at the scheduled examinations.
2) For a team project, students working on the same team project will receive an equal term 
project report grade.

LATE SUBMISSION PENALTIES
Students who fail in submitting their projects/reports by specified deadlines will receive a 
reduced mark, on the basis of a 25% reduction for every day after the deadline (regardless of 
whether it is a working day or not). Projects/reports submitted four days after the deadline will 
not be graded and the students will receive a 0 mark.

TERM PROJECT:
Each project topic should be chosen in mutual agreement with Professor Shehab. Class 
presentation will be 20 minutes presentation to the whole class and MUST demonstrate the 
concepts of security topic clearly including some research reasoning. Using 10-pt font, double 
column text, the final report should be within 12 pages including the bibliography. Students 
should submit a brief proposal (2-3 pages, 10pt, single space) of term project by due date or 
earlier in class. Student must take initiative to make sure this happens in timely manner. The 
term paper should contain the following sections:
- Objectives
ORDERLY AND PRODUCTIVE CONDUCT
I will conduct this class in an atmosphere of mutual respect. I encourage your active participation in class discussions. Each of us may have strongly differing opinions on the various topics of class discussions. The conflict of ideas is encouraged and welcome. The orderly questioning of the ideas of others, including mine, is similarly welcome. However, I will exercise my responsibility to manage the discussions so that ideas and argument can proceed in an orderly fashion. You should expect that if your conduct during class discussions seriously disrupts the atmosphere of mutual respect I expect in this class, you will not be permitted to participate further.

DISABILITIES
Students in this course seeking accommodations to disabilities must first consult with the Office of Disability Services and follow the instructions of that office for obtaining accommodations.

ACADEMIC INTEGRITY
All students are required to read and abide by the Code of Student Academic Integrity. Violations of the Code of Student Academic Integrity, including plagiarism, will result in disciplinary action as provided in the Code. Definitions and examples of plagiarism are set forth in the Code. The Code is available from the Dean of Students Office or online at: http://www.legal.uncc.edu/policies/ps-105.html

SEXUAL HARASSMENT
All students are required to abide by the UNC Charlotte Sexual Harassment Policy (http://www.legal.uncc.edu/policies/ps-61.html) and the policy on Responsible Use of University Computing and Electronic Communication Resources (http://www.legal.uncc.edu/policies/ps-66.html). Sexual harassment, as defined in the UNC Charlotte Sexual Harassment Policy, is prohibited, even when carried out through computers or other electronic communications systems, including course-based chat rooms or message boards.

COMMUNICATION DEVICES and COMPUTERS
The use of cell phones, beepers, or other communication devices is disruptive, and is therefore prohibited during class. Please switch off these devices or set them in vibration mode during class. Except in emergencies, those using such devices must leave the classroom for the remainder of the class period. Students are permitted to use laptops or other types of computers during class for note-taking and other class-related work only. Those using computers during class for work not related to that class must leave the classroom for the remainder of the class period.