IT 620 – Wireless Network Security and Administration (section 001)

Syllabus

Instructor: Stan J. Senesy (senesy@njit.edu)

Office: NJIT Newark, GITC rm. 3803. (973)596-5288

Office hours: Schedule posted in Canvas

Website: https://canvas.njit.edu/

Texts: There are no required texts this semester. We will instead augment our lectures with online readings.

Schedule:
Section 001   Wed 11:30am – 2:20pm   Tier 105
Section 451   Course meets entirely online, there are no set meeting times.

Course Description
This course introduces the fundamentals of wireless network security and administration. Topics include wireless LAN vulnerabilities, passive and active wireless attacks, enterprise wireless hardware security, secure wireless authentication and communication, wireless intrusion detection and prevention systems, WiFi and cellular network management, location privacy, personal area network administration and security, mobile IP security, GSM, CDPD, 3G, 4G & 5G protocols. The course provides both a theoretical foundation and hands-on experience in many of these areas.

Learning Outcomes
Upon completion of this course, students will have developed skills that will allow them to:
- Discuss the implementation of both past and current cellular standards
- Analyze the limitations and requirements of currently standards
- Discuss the evolution of wireless standards
- Plan and implement an effective wireless security plan

Prerequisites
Completion of bridge requirements

Grading:

Posting/Homework/Quizzes	25%
Project	20%
Midterm	20%
Final Exam	35%

Grades will be computed on a straight scale out of 100 possible points: 90-100=A, 87-89=B+, 80-86=B, etc. New this semester – in order to pass this course you must achieve a passing score in each element (Homework/project/etc). If you omit a portion of course, you will not pass.

Course Computing Requirements
You must have access to, and administrative rights on, a computer that meets the NJIT minimum baseline computer system standards. You can find a listing of the minimum computing requirements at https://ist.njit.edu/fall-2019-recommended-specs/

Please note that students are responsible for the administration/maintenance of their own computer. This includes any software loaded onto it for this course. While I will provide help with problems when I have time available, responsibility for resolving problems remains with the student.

Course Notes

I tend to use PowerPoint slides for the main points in my presentations, augmented with board-work when necessary. I will post slides as well as other material used in my lectures on Canvas.

Posting/Homework/Quizzes

I will generally assign homework or postings weekly. Both should be posted on Canvas in the appropriate upload area. Homework will not be accepted through email.

Quizzes will be given at various times throughout the course. Quizzes will cover material presented in earlier lectures or assigned for reading and be given online through Canvas. You may take the quiz at any time during the week that it is active.

Project

There will be a semester long group project that deals with a security related topic. Details of the project will be presented during the first weeks of the course.

Assessment

Exams will be given in-class using Canvas and Respondus. The exams will contain material from assigned reading, lectures and homework. The exams will be given closed book/notes. The midterm date is shown on the course schedule. **The final exam** date will be announced by the Registar and **will be cumulative**

If for some reason you have a conflict that will cause you to miss an exam, please inform me **before** the exam so that we can arrange an alternate date for you to complete the test. You can send email or leave a phone message on my answering machine at any hour of any day.

If you must miss a class, lab, or exam because of a religious observance, it is your responsibility to report to me within the first two weeks of classes which days you will be missing.

Academic Policies

I do not accept non-emergency late work for any reason. I will give at least a week to complete assignments. Do not wait till the last minute to get started as some work will take longer to complete. If you miss the turn-in data do not email your work to me – I will not accept it. Work submitted late will not receive credit. The timestamp in Canvas determines when a work was uploaded. If you have an emergency that causes you to miss an assignment, please contact the Office of the Dean of Students.

I do not offer 'extra credit' assignments. Every student has an equal opportunity to earn the grade they'd like in the course. The overall point spread is broad enough that doing poorly on a single assignment or quiz should not significantly affect your grade.

I do not curve individual assignments. If, at the end of the course I determine that a curve is justified, then I will curve ALL final grades (either positively or negatively) equally. Grading scales are applied consistently across the entire class - no exceptions.

Academic Integrity

Academic Integrity is the cornerstone of higher education and is central to the ideals of this course and the university. Cheating is strictly prohibited and devalues the degree that you are working on. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the academic code of integrity policy that is found at:

http://www5.njit.edu/policies/sites/policies/files/academic-integrity-code.pdf.

*Please note that it is my professional obligation and responsibility to report any academic misconduct to the Dean of Students Office. **Any student found in violation of the code by cheating, plagiarizing or using any online software inappropriately will result in disciplinary action. This may include a failing grade of F,***

and/or suspension or dismissal from the university. *If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at* dos@njit.edu