

Fall 2019

IT 620-101: Wireless Network Security and Administration

Stan J. Senesy

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IT 620 – Wireless Network Security and Administration (section 101)

Syllabus

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

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

Office hours: Posted on Moodle

Website: <http://moodle.njit.edu>

Required Texts: Wireless Networks, P. Nicopolitidis, M.S. Obaidat, G.I Papadimitriou, A.S. Pomportsis
John Wiley & Sons Publishing, 2006
ISBN: 0470845295

CWSP Guide to Wireless Security, Mark Ciampa
Thompson Publishing, 2007
ISBN: 1418836370

Schedule: Thursday, 6:00 – 9:05 pm, CKB 114

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.

Course Modality

Section 101 is a traditional Face-to-Face course. Students registered in this section are expected to attend classes at their regularly scheduled time and location. **There are NO OTHER modality options for students registered in this section. You may not participate in this course through WebEx or podcasts and will not have access to these resources.** Attendance will be reported weekly to the Office of the Provost and will affect your standing at NJIT.

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.

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'll post slides used for the course on Moodle at: <http://moodle.njit.edu>

Posting/Homework/Quizzes

I will generally assign homework weekly as lab type projects or posting. Homework assignments should be posted on Moodle in the appropriate upload area. Homework will not be accepted through email or in-class.

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 Moodle. 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

The midterm and final will constitute a significant portion of your overall grade. Exam times will be announced as they become available. Both exams will be given in class and will contain information from the text, as well as lectures. The final exam will be cumulative. If you are geographically separated from the main campus, you will need to arrange a proctor for your tests. Please talk to me the first week of class.

If you have schedule restrictions due to a religious observance, it is your responsibility to report to me within the first two class sessions which days you will be missing.

Academic Policies

I do not accept late work. The timestamp in Moodle determines when a work was uploaded. You will get a warning from me the first time this happens. Any subsequent work that is late will not receive credit. The degree of lateness does NOT matter. If you have an emergency (hospitalization, jury duty, military service, etc.) that will cause you to miss a homework assignment or quiz, I will not count that against your overall grade once your documentation has been validated by 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*