IINF 453/553: Information Security and Privacy

Spring 2016 – Tuesdays 2:45pm—5:35pm, BB 205

Instructor

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Course Description

Security and Privacy issues in computer and networked systems. The role of systems, design, implementation, etc., on data security in digital systems. Case studies of these roles and how they affect both data security and vulnerability. The legal and ethical aspects of data security and privacy.

Learning Goals for Students: Students who complete this course will be able to

- Clearly distinguish between information security and information privacy needs
- Understand the threats and countermeasure techniques at network and system levels
- Analyze and inspect security and privacy requirements for systems
- Employ mechanisms and technologies to build secure systems that respect user privacy
- Compose information security and privacy policies and address usability aspects of using security/privacy technologies

Prerequisites

The prerequisite course for INF 453 is INF 306: Information Security and Assurance.

Readings and Course Schedule

Required Text: Computer Security: Principles and Practice (3rd Edition), W. Stallings and L. Brown, 2014, ISBN-13: 978-0133773927

In addition to the required textbook, other reading materials will be posted on the course page. The course page includes a schedule of the readings and assignments and is posted as a link on Blackboard. Please note that the schedule is tentative and will be regularly updated during the semester. It is your responsibility to regularly check the schedule.

Course Requirements

Readiness Assurance Test (RAT): At the beginning of each unit of study, you will take a short test to assess your comprehension of the assigned readings. You will take each RAT twice: once as individual and once as a team. Your individual and team scores will be averaged to create your final score on each RAT.

In-Class Team Activities: A major component of your participation in the course will be involvement in class activities and discussions which will be occasionally graded.

Homework Assignments: You will be assigned to individually solve problem sets related to the topics covered in the class. Assignments may include hands-on exercises that occasionally may need writing small programs. Students registered for INF 553 will have slightly more number of assignments.

Team Member Performance: Because your work in your teams is crucial to your success in this course as well as your teammates, you will be held accountable for your contribution to your team. Your team members will give you feedback on your performance twice during the semester.

Course Policies

Tardiness: If you need to arrive late or leave early and thereby miss part or all of an in-class assignment, you will receive no credit for the assignment, neither for individual work nor for the work of your team in your absence. If you know that it will be difficult for you to consistently get to class on time and stay for the entire period, you should take this course at a time that better fits your schedule. Being late frequently will guarantee a low grade for the course.

Late Homework Submissions: Unless mentioned otherwise, homework assignments are due by the end of the specified day, submitted through Blackboard. If you decide to submit your homework late, it will be subject to 10% penalty per day late for up to 5 days. No assignment will be accepted after 5 days past the deadline.

Make-up Policy: There are generally no make-up opportunities for missed assignments except in extenuating circumstances. Since there will be occasions in your life when missing a class meeting or missing a deadline for an assignment is simply unavoidable, this course has a few built-in safety valve.

Safety Valve 1: Your lowest RAT score will be dropped from the calculation of your average.

Safety Valve 2: The average of the best 90% of your in-class activities will count towards your grade.

Safety Valve 3: If you become seriously ill during the semester, or become derailed by unforeseeable life problems, and have to miss so many assignments that it will ruin your grade, schedule a meeting with me in order to make arrangements for you to drop the course to save your grade point average. Do not wait until it is too late to see me when you get in trouble.

Academic Integrity: *It is every student's responsibility to become familiar with the standards of academic integrity at the University. Claims of ignorance, of unintentional error, or of academic or personal pressures are not sufficient reasons for violations of academic integrity.* See http://www.albany.edu/studentconduct/standards_of_academic_integrity.php

Any incident of academic dishonesty can result in i) no credit for the affected assignment, ii) report to the appropriate University authorities (e.g., Dean of Undergraduate Education), and/or iii) a failing grade (E) for the course.

For all individual assignments and papers, make sure to do your own work, except where collaboration is explicitly permitted or required. Also, make sure that you properly cite any resource from which you borrow ideas and that you clearly distinguish them from your contributions.

Students with Disabilities: Reasonable accommodation will be provided for students with documented physical, sensory, cognitive, learning and psychiatric disorders. If you believe you have a disability requiring accommodation in this class, please notify the Disability Resource Center (BA 120, 518-442-5490). That office will provide the course instructor with verification of your disability, and will recommend appropriate accommodations. In general, it is the student's responsibility to contact the instructor at least one week before the relevant assignment to make arrangements.

Grading

Your final course grade will be composed of the followings:

- Readiness Assurance Tests: 10%
- In-Class Activities: 15%
- Midterm Exam: 20%
- Homework Assignments: 25%
- Final Exam: 25%
- Team Member Performance: 5%

Your letter grade will be calculated according to the following scale:

93% – 100% = A	90% – 92% = A-	87% – 89% = B+	83% – 86% = B	80% – 82% = B-	77% – 79% = C+
73% – 76% = C	70% – 72% = C-	67% – 69% = D+	63% – 66% = D	60% – 62% = D-	0% – 59% = E