ITIS 6200 / 8200: Principles of Information Security and Privacy

Prof. Jian Xiang Spring 2024

Lectures: Tu,Th 10:00-11:15am

Syllabus: Course Information | Grading | Textbook | Schedule | Policies

Course information

This course is an introduction to fundamental concepts of security. Common topics include: security concepts and mechanisms; security technologies; authentication mechanisms; mandatory and discretionary controls; basic cryptography and its applications; database security, intrusion detection and prevention; assurance requirement, assurance class, evaluation methods and assurance maintenance; anonymity and privacy issues for information systems.

Credit hours: 3

Course staff

Instructor: Jian Xiang

Office Hours: Tu,Th 1:45-3pm, Woodward Hall 330d

Teaching Assistants:

Md Morshed Alam, malam3@charlotte.edu Sneha Gourishetty, sgourish@charlotte.edu

All questions and issues related to assignments, course content, etc., should be sent emails to course staff or discussed on the Discussion Forum. Questions related to grades, special consideration, etc. can be sent directly to Prof. Xiang. Note that course staff may take up to 48 hours to respond.

Time and place

There are two 75-minute lectures per week: Tuesdays and Thursdays, 10:00am - 11:15am.

Homeworks, exams, and grading

There will be an in-class **open-book** midterm and a final exam. There will be about 4 homework assignments, 3 projects, and 4 quizzes. Your grade will be determined by a weighted average of your scores on homework assignments, the midterm exam, the final exam, the quizzes, and class participation. Below are more details about each component, and their percentage at the final grade. (The percentage breakdown is subject to change anytime).

- Homeworks (25%): 4 assignments. Assignments are going to be released and submitted at Canvas.
- Midterm (20%): In class, open-book exam. No internet and ChatGPT allowed.
- Final exam (30%): In class, open-book exam. No internet and ChatGPT allowed.
- Projects (15%): 3 projects for hands-on experience.
- Quizzes (5%): 4 20-minutes quizzes which are single-choice, or multiple-choice questions.
- Participation (5%): class participation includes attendance and participation in class and office hours, and contributing to online discussion
- Extra points:
 - Course evaluation (1% extra point): upload a screenshot of post-survey results

Textbooks

No textbook is required, but if you would like additional references, we recommend:

Security Engineering by Ross Anderson

Cryptography Engineering by Ferguson, Schneier, and Kohno

<u>Introduction to Computer Security</u> by Matt Bishop

Computer Security: Principles and Practice by William Stallings

Computer Security: Art and Science by Matt Bishop

Security in Computing by Charles P. Pfleeger

Introduction to Computer Security by Michael Goodrich and Roberto Tamassia

Computer Security, a freely available course textbook from UC Berkerly.

See the Resources page for additional material that you can examine.

Schedule

Lectures schedule

See <u>here</u> for a detailed schedule of lectures.

Check University Academic Calendar for other important dates and deadlines.

Office hours

Office hours will start in the second week of classes.

We will use a Google <u>calendar</u> for office hour times.

Course Policies

Some text for this course's policies is based on material by Monica Linden, Neuroscience, Brown University; and Stephen Chong, David Malan, Computer Science, Harvard University.

General

- We expect that you will do well in this course!
- We expect all students to stay up to date on the course material, either by reading the lecture notes and/or by attending lectures, as the assignments are based on material covered in lectures.
- We expect you to look after yourself: sleep, eat, and keep well.
- We expect you to reach out to course staff if you are having any difficulty in the class, whether it is about understanding the material, staying up to date on the

material, external circumstances, or anything else that is affecting your engagement or performance in the course.

- We expect you to read the syllabus, be aware of course policies, and follow them.
- We expect you to engage in the course and make use of the course resources as needed, including office hours, the discussion board, practice problems, etc.
- I very much appreciate the opportunity to get to know each of you during the course! Please try to stop by my office hours, or arrange a coffee or a meal, to get a chance to talk.

Attendance

Attendance/Participation is a critical part of this class. All students are expected to attend lectures.

Devices in class: I appreciate that different people learn differently. For some students, using a device in class can be an effective learning aid (for example, to take notes). However, for many students, laptops and smart phones are a distraction. I encourage you to bring or use electronic devices with you to class only if you think it will improve your learning.

Attendance at office hours is encouraged but not required.

Code of Student Responsibility

Please refer to <u>Code of Student Responsibility</u> for expectation and guideline from the university for students. Failure to follow these expectations may constitute a violation of the Code of Student Responsibility. All students should review these behavioral expectations, along with the procedure for reporting and addressing noncompliance with those expectations.

Due Date and Late Policy

All the homework and project assignments must be submitted from Canvas. Assignments are due by 11:59PM on the due date. NO late submission will not be accepted after the canvas is closed.

Exams

Exams are given in class and are closed book. No make-up exams will be given except under circumstances such as accident, illness or death in the immediate family in which case you must give me notice or proof well before the exam if at all possible.

Collaboration and Academic Integrity

Discussion and the exchange of ideas are essential to doing academic work. For assignments in this course, you are encouraged to consult with your classmates as you work on problem sets. However, after discussions with peers (or course instructional staff), make sure that you can work through the problem yourself and ensure that any answers you submit for evaluation are the result of your own efforts. In addition, you must cite any books, articles, websites, lectures, etc that have helped you with your work using appropriate citation practices. Similarly, you must list the names of students with whom you have collaborated on problem sets.

Do not pass solutions to problem sets nor accept them from another student. Do not post course materials (including problem sets, solutions, exams, etc.) to websites or course-content archives. Also, it is never okay to look up solutions to homework problems in this class, i.e., don't look on the web for solutions. If you are ever in doubt, ask the course staff to clarify what is and isn't appropriate.

Please find more about the university's policies on <u>Code of Student Academic Integrity</u>.

Timely Feedback

Course staff will aim to return graded assignments, with solutions, to students within 10 days of when the assignment is turned in.

Diversity and Inclusion

I would like to create a learning environment that supports a diversity of thoughts, perspectives and experiences, and honors your identities (including race, gender, class, sexuality, religion, ability, etc.) To help accomplish this:

- If you have a name and/or set of pronouns that differ from those that appear in your official Harvard records, please let me know!
- If you feel like your performance in the class is being impacted by your experiences outside of class, please don't hesitate to come and talk with me. I want to be a resource for you. If you prefer to speak with someone outside of the course, Office of identity, equity, and engagement and Office of Diversity & Inclusion are excellent resources.
- I (like many people) am still in the process of learning about diverse perspectives and identities. If something was said (by anyone) in class, office hours, or the discussion board that made you feel uncomfortable, please talk to me about it.
- As a participant in course discussions, office hours, and group projects, you should also strive to honor the diversity of your classmates.

Non-Discrimination

No student will be discriminated against in this class based on age, race, nationality, religion, sexual orientation, gender identity/expression, veteran's status, country of origin, or group affiliation. Any student who does not behave in a respectful manner may be asked to leave the classroom. Continuous or repeated disrespectful behavior will be considered to be creating a hostile environment, which constitutes a violation to the University Policy 406, Code of Student Responsibility. Such a student will be referred to the Office of Student Conduct or the Title IX Office. Based on such referral, the Director or designee will determine whether a Formal Charge(s) shall be pursued and whether the Formal Charge(s) constitutes a Minor Violation or a Serious Violation, based on the Student's prior record or facts and circumstances related to the case.

Inclusive Learning and Accessibility

Your success in this class is important to me. We will all need accommodations because we all learn differently. If there are aspects of this course that prevent you from learning or exclude you, please let me know as soon as possible. Together we'll develop strategies to meet both your needs and the requirements of the course.

I encourage you to visit the <u>Office of Disability Services</u> to determine how you could improve your learning as well. If you need official accommodations, you have a right to have these met. There are also a range of resources on campus. The <u>University Center for Academic Excellence</u> provides many resources, including academic counseling and peer tutors.

Mental Health

If you experience significant stress or worry, changes in mood, or problems eating or sleeping this semester, whether because of ITIS6200 or other courses or factors, please do not hesitate to reach out to any of the course staff to discuss. Everyone can benefit from support during challenging times. Not only are we happy to listen and make accommodations with deadlines as needed, we can also refer you to additional support structures on campus, including, but not limited to:

The <u>Center for Counseling and Psychological Services</u> line 704-687-0311 is a support line (with <u>after hour support</u>) for students who have mental health concerns, whether they are in immediate distress or not, on-campus or elsewhere.

Prohibit Use of Unauthorized Materials

The following materials, equipment, websites, or tools are prohibited for completing course assignments, quizzes or examinations, or other academic exercises unless I explicitly permit such use for legitimate pedagogical purposes:

- Generative AI tools, which may include ChatGPT or other generative artificial intelligence tools
- Online course material suppliers like CourseHero or Chegg, etc.

Syllabus Revisions

The instructor may modify standards and requirements set forth in this syllabus at any time. Notice of such changes will be by announcement to the class.