

- Instructor: <PROF_FIRST_NAME> <PROF_LAST_NAME>
- TA: <TA_FIRST_NAME> <TA_LAST_NAME> (zf7ja),
- <TA_FIRST_NAME> <TA_LAST_NAME> (jrb2ub)
- Lecture time: 2:00-3:15pm Mondays and Wednesdays
Location: Olsson 009
- Office hours:
 - <PROF_FIRST_NAME>: Wed 3:30-4:30pm (Rice 403), Fri 2:00-2:30pm
 - (Discord) <TA_FIRST_NAME>: TuTh 9:30-11:30am (Discord)
 - <TA_FIRST_NAME>: Mon 3:30-4:30pm, Fri 1:00-2:00pm (Discord)

Course Description

This course provides an in-depth look into privacy issues on the Internet and introduces privacy enhancing technologies. We will cover topics such as anonymous communications, traffic analysis and location privacy. We will also examine the trade-offs between security and privacy, and the interactions with other fields such as machine learning and policy.

Prerequisites

CS2150. Some background in cybersecurity (CS3710) and computer networks (CS4457) will be helpful but not required.

Course Schedule

Tentative schedule, subject to change.

Dates	Topic	Notes
Wed 8/25	Intro	
Mon 8/30	Background	
Wed 9/1	Privacy issues with IP	
Mon 9/6	Anonymity systems	HW1 out
Wed 9/8	Website fingerprinting	
Mon 9/13	Censorship techniques	
Wed 9/15	Censorship measurement	Quiz 1
Mon 9/20	Censorship circumvention	
Wed 9/22	DNS privacy	
Mon 9/27	IoT privacy	HW1 due, HW2 out
Wed 9/29	Guest lecture Natasha Zhang Foutz	
Mon 10/4	Online tracking	
Wed 10/6	CDN privacy	Quiz 2
Mon 10/11	(Reading Days)	

Wed 10/13	Data privacy 1	HW2 due
Mon 10/18	Data privacy 2	
Wed 10/20	Machine learning and privacy	HW3 out
Mon 10/25	Guest lecture (Alastair Nottingham)	
Wed 10/27	Privacy and cryptocurrency	Quiz 3
Mon 11/1	MPC and CryptDB	
Wed 11/3	Security and privacy challenges	HW3 due
Mon 11/8	New Internet architecture	Project team/topic due
Wed 11/10	ISP privacy	
Mon 11/15	Privacy policy	
Wed 11/17	Privacy and user study	
Mon 11/22	Summary (and trivia)	
Wed 11/24	(Thanksgiving)	
Mon 11/29	Project Presentation	
Wed 12/1	Project Presentation	
Mon 12/6	Project Presentation	Last day of class
Wed 12/15		Final report due

Grading

- Homework assignments: 45% (3 assignments, 15% each) Final
- project (presentation and report): 40%
- Quizzes: 15% (3 quizzes, 5% each)

Late Policy

All assignments are due via Collab at 11:59pm on the due date.

- Grace period: 12 hours (intended to cover *real issues*, e.g., internet issues, server down) 10%
- penalty per day late

Communication and Logistics

There is no textbook for the course that you need to purchase. We will distribute materials as needed.

There are several sites for the course that you can utilize: Course

- website (this one): informational purpose
- Collab: Announcements, assignment submissions, course materials and recordings, Zoom links
- Piazza: Long-form questions, notes, private messages for faculty/TA, regrade request
- Discord: Online office hours and meetings, quick chat, off-topic discussion

Please direct all course-related questions to Piazza (or go to office hours). If you want to discuss other topics or have personal/team issues that can and should only be handled by a professor, please email me directly (ys3kz).

COVID Policies FAQ

(Courtesy of CS3240)

Q: I am worried about the virus: will I know if there is an unvaccinated students in the class?

In this message <https://coronavirus.virginia.edu/updates/important-information-about-fall-2021>, the University announced that all students who live, learn, or work in person at the University during the next academic year must be fully vaccinated before returning to Grounds unless they have obtained a medical or religious exemption from the University. Therefore, you can expect that students in your class are vaccinated. A very small number of students have received vaccination exemptions, so the likelihood that an unvaccinated student is in your class is slight.

Q: How will you accommodate a student who needs to isolate/quarantine?

If a student informs us that they cannot attend class in-person because they have been requested to isolate or quarantine due to possible exposure to COVID-19, we will treat you as we would any other student absent due to illness. You will have access to the recordings of the lecture, either synchronously or asynchronously. You can also continue to interact with your team via Discord and other online tools.

Q: What if the professor has to isolate/quarantine (either for herself or because of a family member)?

We will have Zoom-only lectures and recordings. If this happens, we will send a Collab announcement.

Q: What if a TA has to isolate/quarantine?

The TA's office hour will be online only.

Q: How will we be doing quizzes?

Quizzes will be online via the "Tests & Quizzes" tab on Collab during a given time window. We may adjust this policy depending on how the semester goes.

Q: Do I have to wear a mask?

Our class will diligently follow all University regulations in effect. If masks are required during a certain period, then they are absolutely required for class. If policy changes, then we will adjust accordingly. Failure to mask if a regulation is in effect will result in reporting to UJC and a professionalism penalty for the class. Additionally, all in person office hours will require masking, regardless of location.

Q: Is the professor going to wear a mask?

Yes, with the exception of active lecturing behind the plastic shield in accordance with the latest [guideline](#).