

Homework 1: Rational Paranoia

This homework is due **Friday, September 17 at 5 p.m.** and counts for 4% of your course grade. Late submissions will be penalized by 10% plus an additional 10% every 12 hours until received. (The professor may grant individual extensions, but only under truly extraordinary circumstances.)

You are free to discuss the problems with other members of the class, but the answers you turn in must be your own work. Email your submission (as text or as a PDF attachment) to `eeecs398@umich.edu` with “HW1 Submission” as the subject. You should receive a confirmation email within 15 minutes.

For each of four scenarios (as explained below), imagine that you are in charge of security. Apply the security mindset to answer these questions:

What assets do you need to protect?

What threats will you defend against?

What countermeasures can you justify, in terms of costs and benefits?

Justify your answers, but limit them to 500 words per scenario. State any assumptions you decide to make. Your grade will be based on the thoroughness, realism, and thoughtfulness of your analysis.

1–3. Pick **three** of the following scenarios. (If you answer them all, we’ll drop the highest score.)

- (a) You own a local Panera restaurant franchise.
- (b) You oversee the football stadium at a Big Ten school.
- (c) You belong to a fraternity or sorority that plans to host a wild party.
- (d) As head of the TSA, you set the rules for screening passengers at airport checkpoints.

4. Choose another scenario from everyday life that we haven’t discussed in class. Your choice may be directly related to computer security, but it doesn’t have to be.

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