

# SS 495 Cybercrime: Human Perspectives

Spring 2022

Class meetings: Mondays, Wednesdays, and Thursdays 9:00-9:50am DH 110

## Instructor

Dr. Katie Panciera

## Contact

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## Office Location & Hours

DH 435 11am-12pm Thursdays  
or by appointment  
[calendly.com/panciera](https://calendly.com/panciera)

## STOP

**This is not a light course. This course is very dark. I'm going to try to list content warnings, but you need to be mentally prepared to discuss deep and touchy subjects and to engage in civil discussion on controversial topics. You will always know what is coming up, but you are expected to engage with the majority of the material.**

## BY CONTINUING IN THIS COURSE YOU WILL AGREE TO

- Understand that the actions or values of a nation-state cannot be extrapolated to apply to all citizens or residents of the nation-state
- In class, speak in a way that is thoughtful and respectful
- Violation of either of these two rules after a warning will result in loss of 15% of the possible points for this class



## Course Description

The course reintroduces students to cybercrimes that they may be familiar with (ransomware, spam, online harassment) as well as incorporating cybercrimes that are less familiar (cyberterrorism). The course will focus on the social science perspective: both the social problems that ensue from cybercrime as well as the social psychology techniques that we can use to avoid cybersecurity incidents and hacking. We'll be looking both forward at current events, IoT, VR, and AI/ML as well as backwards at the introduction of cybercrime and the shift of some crimes from real life to online. This course will be focused on reading, writing, and discussion but is recommended for students interested in cybersecurity, cybercrime, psychology, or user experience.



## Student Learning Outcomes

- Identify own attitudes and beliefs around cybercrime and hacking and how they shift over the course of the term
- Demonstrate a holistic understanding of the community and culture around cybercrime and hacking
- Demonstrate the threat of various cybercrime attacks
- Identify and implement potential protective measures against cybercrime attacks
- Modify existing interfaces to prevent misuse or abuse
- Investigate ways in which a device or site could potentially be abused or targeted
- Discuss current events in cybercrime
- Moderate civil discussion around cybercrime topics
- Evaluate the threat posed by various types of cybercrime
- Articulate the role that different identities play in both perpetration of cybercrime and protection of cybercrime survivors



## Required Materials

### Required:

- Design for Safety by Eva PenzeyMoog (available through the MSOE Digital Library)
- Book of your choice from the following list (we'll discuss on Thursday/Friday Week 1)
  - Breaking and Entering: The Extraordinary Story of a Hacker Called "Alien" by Jeremy N. Smith
  - Countdown to Zero Day: Stuxnet and the Launch of the World's First Digital Weapon by Kim Zetter
  - Crash Override: How Gamergate (Nearly) Destroyed My Life, and How We Can Win the Fight Against Online Hate by Zoë Quinn
  - The Cuckoo's Egg: Tracking a Spy Through The Maze of Computer Espionage by Clifford Stoll
  - Ghost in the Wires: My Adventures as the World's Most Wanted Hacker by Kevin Mitnick and William L. Simon
  - Kingdom of Lies: Unnerving Adventures in the World of Cybercrime by Kate Fazzini
  - Masters of Deception: The Gang That Rule Cyberspace by Michelle Slatalla and Joshua Quittner
  - Spam Nation: The Inside Story of Organized Cybercrime-from Global Epidemic to Your Front Door by Brian Krebs

### Free online materials including:

- Podcasts, videos, online news articles



## Course Assignments Outline

- **Weekly Reflections & Activities:** On a weekly basis, you will be asked to reflect on their activities, readings, and discussions to deepen their understanding and contemplate additional problems. Several other small things will be in this group as well, such as the first day survey.
- **News Reports:** Like with the reflections, you will be expected to find one news article a week that deals with some aspect of cybercrime and share it with the class. We will use these to start a deeper discussion

- **Book Review:** This paper will be a review and reflection of your chosen book. Due week 6.
- **Investigation and Design Activity:** Investigate the ways in which a site or device could be potentially abused. After this step, design a solution that mitigates the major issues. This will result in a written report including sketches or diagrams.
- **Leading Class:** You will, in groups of 2-3, lead class. This will involve gathering and sharing readings for the class period (in consultation with Dr. Panciera), doing a lecture (if appropriate) on the topic, and leading class discussion or small group activities on the topic. The goal is to get you comfortable both teaching and moderating discussions on these potentially touchy topics.
- **Pre-Post Test:** At the beginning and end of the class you'll take a test that you will take again at the end of class. You could think of this as a final exam, but my goal is to measure what you've learned in the class. The pretest will just give you participation points, the post test will be graded.



## Week by Week Outline (This is in flux)

Readings and Materials are TBD and may fluctuate based on the needs of the class. You'll notice that while the readings for the first few weeks are listed, many others are not. Finding readings for classes you lead will be part of those assignments.

WEEK	TOPIC	DUE
1	<p><b>Introductions</b></p> <p>Listen/Read: <a href="#">The Secret Life of Alex Goldman</a> (CW: cursing, intimate partner violence)</p> <p><a href="#">Skim: Penetration Test</a></p> <p>Listen/Read: <a href="#">What Kind Of An Idiot Gets Phished?</a> (CW: cursing) OR Listen/Read: <a href="#">Long Distance</a> OR Read: Fraud article</p>	<p>First Day Survey Pretest Reflection 1 News Thread 1 Topic &amp; Book Sign Up</p>
2	<p><b>Hacking and Fraud</b></p> <p>Listen/Read: <a href="#">Inner Workings of DarkSide Cybergang Reveal It's Run Like Any Other Business</a></p> <p>Have read at least 20% of your book group book</p>	<p>Reflection 2 News Thread 2</p>
3	<p><b>Ransomware and Book Group</b></p> <p>Read: Spam Read: <a href="#">The Five Biggest Fallacies About Intellectual Property Theft</a></p> <p>Read: <a href="#">China Hawks Don't Understand How Science Advances</a> OR Read: <a href="#">A Doozy of a Lawsuit Over Self-Driving Cars</a> OR Other reading TBD</p>	<p>Reflection 3 News Thread 3</p>
4	<p><b>Spam and Intellectual Property</b></p> <p>Readings TBD</p>	<p>Reflection 4 News Thread 4</p>

5	<b>Harassment, Bullying, and Book Group</b> Readings TBD	Reflection 5 News Thread 5
6	<b>Dark Web</b> Read: <a href="#">Thermostats, Locks and Lights: Digital Tools of Domestic Abuse</a>  Read: Design for Safety by Eva PenzeyMoog Chapters 1, 2, 5  Other Readings TBD	Book Report
7	<b>Intimate Partner Violence, Stalking, and Cyberextortion/Blackmail</b> Readings TBD	Reflection 6 News Thread 6
8	<b>Misinformation and Activism</b>  Read: The National-Security Case For Fixing Social Media (New Yorker, file)  Other Readings TBD	Reflection 7 News Thread 7 Investigation and Design Activity DRAFT due
9	<b>Escalation and Nation-States</b>  Other Readings TBD	Investigation and Design Activity
10	<b>Special Topics</b>  Other Readings TBD	Reflection 8
11	<b>Exam Week</b>	Post Test



## Grading Policies

### Participation and Attendance

This course is all about people and your engagement is critical. This is a discussion based class so missing more than a few times is likely to impact your grade even without a participation/attendance grade.

Participation can look like:

- Showing up to class (on time!)
- Actively engaging in class
- Actively engaging in online discussions
- Actively engaging in group activities
- Checking Canvas for assignments, readings, and information

If you cannot attend class (or will be significantly late), please let me know BEFORE class starts. You can always ask for a recording or for the class to be streamed and I will try to accommodate.

I am not grading participation and attendance this year because I know it might represent a hardship and I don't want people coming to class when sick. HOWEVER I do notice who comes to class and who doesn't and I'm not just having class meetings for the heck of it or to amuse myself.

## **Assignment Due Dates**

News Threads will be due on Fridays (before 11:59pm) and most other assignments will be due on Sundays by 11:59pm. If you prefer to have Fridays for all your due dates, let me know and I will change things in Canvas for you.

**Without a discussion with the professor**, late assignments will be docked one half grade (5% off the total points possible) per day late and are only accepted up to one week beyond the original due date. After that, a grade of zero (0) will be given. Finishing an assignment is not an excuse to miss class.

There is more (but not infinite) flexibility if you communicate with the professor.

## **Grading**

Follows standard MSOE grading scale: A, AB, B, BC, C, CD, D, F

For this course, your grade will be determined as follows:

- Activities & Reflections: 15%
- Book Report: 15%
- News Reports: 15%
- Investigation and design activity: 20%
- Leading class: 20%
- Pre/post test: 15%

## **Grading Philosophy**

This class may be quite different from what you're used to at MSOE. While you will have a list of requirements, the emphasis here is on the process, not necessarily the end product.

Some assignments will be graded based on detailed rubrics, some will be graded on whether or not they were completed. You will not receive detailed feedback on every assignment.

## **Extra Credit**

Extra credit may be offered by the professor periodically during the quarter. It will be offered to the entire class and no later than Friday of Week 9.

## **Communication Policies**

### **Respect**

All class communications should be professional and respectful. Unprofessional communications (verbal or written), will not receive a response. This includes, but is not limited to: racism, sexism, transphobia, homophobia, aggressive language (with or without profanity), slander, inappropriate topics, etc. This applies not only to communications with myself but with your fellow students as well. If you feel that a classmate is not being respectful, please let them know or talk to me.

This especially applies to microaggressions. I look at the impact, not the intent of the comment. Please think carefully about how you communicate in the class.

I will try to call issues out when I see them, but may miss some. My goal is for this class to be a safe, inclusive environment for all. **Please let me know if you do not feel that this is the case.**

**Reminder that violating either of the two following rules after a warning will result in an automatic 15% grade deduction for the term:**

- **Understand that the actions or values of a nation-state cannot be extrapolated to apply to all citizens or residents of the nation-state**
- **In class, speak in a way that is thoughtful and respectful**

## **Electronic Communication**

In general, email or MS Teams are the best ways to contact me. I will try to return email within 24 hours on weekdays. I will check email once between 5pm and 8:30pm every weeknight and once a day on weekends. Expect a slower response during evenings and weekends than during the workday.

I expect you to check Canvas regularly for readings, assignments, grades, and announcements. Their app is supposedly useful.

## **Phone Communication**

I have listed my cell phone number above. Please respect that this is my personal phone number and use it only if you need to reach me immediately. My phone is off from 9pm to 7am, so you will not get through at that time. Texts usually get quicker responses than phone calls.

## **When In Doubt**

If you think maybe you have a question or find yourself guessing at my intended meaning, please reach out and ask the question or for clarification. Chances are you aren't the only one. In addition, communication is critical for online work. If you are sick and have to miss class, please let me know. If you're starting to spiral into anxiety, let me know (in addition to talking to the Wellness Center). If I don't know, I can't help.

## **BE VOCAL**

While I taught this course last spring, this is still somewhat new and I guarantee I will make mistakes. Please be vocal. Tell me if things aren't working for you. Let me know when assignments are confusing. I also appreciate suggestions for how to improve things, but it's up to you to share those with me. I want this to be a good class, but I need your help!

## **Current Circumstances**

### **Personal Wellbeing**

I am your professor, but first and foremost, I am a human. If you do not have a home, food, or childcare or are caring for someone who is sick or are sick yourself, please let me know. I may not be able to help directly, but I can try to connect you to others who can. This will also allow me to understand why you may have additional difficulties turning in work, participating in your group, etc.

## Internet Access

I will post all assignments on Canvas and use Canvas and Teams for the majority of the coursework. If for some reason you lose internet access during the quarter please let me know so that I can be flexible.

There is a Canvas App, but if your computer has to go to IT or you have other problems, please let me know. **I don't want you completing all this work from your phone.**

## Empathy

This is a weird period for all of us and requires empathy and compassion. While I am willing to be flexible on occasion, I will be more understanding if you have a good track record in the class. If you've turned nothing in all quarter, have not responded to my emails or early alerts, and at the end of the quarter want to turn everything in all at once, that is not ok. However, if you have been communicative and have been a good teammate, I will be more understanding with delays that were not caused by you. Procrastination is never a valid excuse to turn things in late.

Similarly, I may have times in the quarter where things on my end start falling apart and I get your assignments back late or have to reschedule meetings. (I also have a 5 year old who may disrupt things on occasion.) Please be understanding of this as I am understanding of your situations.

Communication is key.

## Resources

### Mental and Physical Health

If you find yourself struggling with your mental or physical health this quarter, please feel free to approach me. I try to be flexible and accommodating. You can also receive assistance from The Wellness Center for Advising, Counseling, Health, & Accessibility Needs in Kern 250, 414-277-7590, or [wellness@msoe.edu](mailto:wellness@msoe.edu) **Counseling can be done online.**

### Drop In Hours

Drop in hours (office hours) are designed for you to ask questions (related to class or not) and get help as well as to have another sounding board or faculty connection. By talking to me, you're helping me get to know you which may allow you to get industry connections, find scholarships, or discover jobs you didn't know existed.

If you have a specific question/concern, please stop by my office or email me or send me a message on Teams and we can find a time to have a quick video call. I am available most days from 9:00ish to 5:00ish. You can also use [calendly.com/panciera](https://calendly.com/panciera) to schedule a 15 minute appointment with me.

### Student Accessibility Services

For students with documented disabilities, chronic medical conditions or mental health concerns; MSOE provides services to make reasonable accommodations available. If you are a student who requires or

anticipates the need for accommodations, please contact Student Accessibility Services Office at 414-277-7281, by email at [moureau@msoe.edu](mailto:moureau@msoe.edu), or in person at Kern 250 to discuss appropriate accommodations and eligibility requirements.

## **Raider Success Coaches**

To help all students be successful in this course, struggling students will be required to meet with a Raider Success Coach throughout the quarter. These meetings will focus on strategies for academic success. Students will be notified if they need to meet with a Raider Success Coach via email by either myself or Dr. Alicia Domack.

## **Academic Assistance**

The Raider Center for Academic Success (RCAS) is available virtually and in person. In addition to 1:1 tutoring for some classes, they also offer writing assistance. Please take advantage of this if you are not a strong writer as communication skills are important to succeed in this class.

## **University Policies**

### **Nondiscrimination Statement**

Milwaukee School of Engineering admits students of any race, color, national and ethnic origin to all the rights, privileges, programs and activities generally accorded, or made available, to students at the university. It does not discriminate on the basis of race, color, national and ethnic origin, religion, age, gender, sexual orientation, marital status or disability in administration of its educational policies, admission policies, scholarship and loan programs, and athletic and other institutionally administered programs. MSOE also maintains its long-standing policy as an Equal Opportunity/Affirmative Action Employer of male and female personnel for its faculty and administrative staff.

### **Academic Integrity**

Academic integrity means that any work you hand in as your own is truly your own and that it represents work developed by you. The consequences for handing in the work of someone else as your own will result in a failing grade for the semester for both you and the person who gave you the file or worksheet. Don't share your electronic files with your friends.

As a course requiring teamwork, collaboration will be necessary to complete assignments, but individuals will be responsible for handing in their own work.

See more detail: <https://msoe.app.box.com/s/4c8k9jx8zso5ezybxmszr6zmc73zgoox>

### **Sexual Misconduct**

Sexual misconduct will not be tolerated at MSOE.

See more detail: <https://msoe.app.box.com/s/o7c2rz2jdweq47trbhrzukeyecwxxb3x>

### **COVID-19**

I have regular contact with kiddos under 5 who cannot be vaccinated yet. Therefore in addition to the MSOE policy listed below, I ask that **if you meet with me in my office you also wear a mask**. If you are not comfortable doing this, please set up time for us to chat on Teams.



MSOE is committed to the health, safety, and well-being of all members of our community. Since classrooms and laboratories are constrained spaces where students and faculty are required to congregate for long periods of time and where social distancing is difficult to achieve, students, faculty, staff and guests of the university must wear a facial covering in all classrooms and laboratories at MSOE.

- Failure to wear a facial covering in class or laboratory will result in your faculty member requiring you to leave class and not return until you have secured a facial covering for yourself.
- Failure to comply with your faculty member's instructions will result in immediate referral to and action from the Office of the Dean of Students.
- Failure to comply with this policy will be handled according to the Student Code of Conduct and may result in sanctions, up to and including expulsion.

The university strongly encourages all students to keep an extra and clean facial covering on their person at all times and strongly discourages students from borrowing and lending others their facial coverings.

If you receive a positive COVID-19 test result; or are symptomatic of COVID-19; or are an unvaccinated student who has been a close contact of an individual who is symptomatic or positive, please login to [my.msoe.edu](https://my.msoe.edu) and click on the COVID-19 Report Form located on the home page. Please do not physically come to campus if you are ill or suspect you may be ill. MSOE is committed to your education and your faculty will work to support your learning should you need to isolate or quarantine.