

Syllabus

1 Course Information

Web page: <https://courses.engr.illinois.edu/ece498kl/fa2018>

Piazza: <https://piazza.com/illinois/fall2018/ece498kl>

Term: **October 25, 2018 to December 11, 2018**

Lectures: Tuesdays and Thursdays, 2:00 P.M. to 3:20 P.M. in ECEB 2015

Final exam: December 14, 8:00 A.M. in ECEB 2015

Instructor: Kirill Levchenko

Email: klevchen@illinois.edu

Office hours: Mondays at 2:00 P.M. in CSL 468

Teaching Assistant: Joshua Reynolds

Email: joshuar3@illinois.edu

Office hours: Thursdays at 1:00 P.M. in CSL 221

2 Goals and Topics

All of your coursework to date has taught you how to design and build computer systems to do useful work. Along the way, whether you realized it or not, you made certain assumptions about how your computer system will be used. Unfortunately, many of the systems we build can also be used in *unintended* ways. Miscreants can exploit vulnerabilities in the design and implementation of computer systems for profit. In this class, you will learn how computer systems can be abused for illicit financial gain and how to anticipate and protect against such unintended uses. We will cover the following topics:

- ❖ Legal concepts (2½ lectures)
- ❖ Malware (3 lectures)
- ❖ Spam (2 lectures)
- ❖ Account abuse (2 lectures)
- ❖ Search abuse (2 lectures)

3 Prerequisites

ECE 391, CSE 241 or consent of instructor.

4 Textbook, Readings and Lectures

There is no textbook for this class. Readings will be posted online. You must complete the assigned readings *before* lecture. Lectures will build on the material covered in the readings.

5 Quizzes

There will be a short quiz before the start of every lecture, starting with the lecture on October 30. The quizzes are intended to test your understanding of the reading. There will be a total of 11 quizzes. Your lowest quiz grade will be dropped and the remaining 10 quizzes will determine your final quiz grade. Each quiz will last exactly 5 minutes. Everyone will take the quiz at the same time and *no late quizzes will be given*. You must be present in class to take the quiz.

6 Assignments

There will be seven programming assignments which will provide you hands-on experience with the topics covered in class. All homework assignments are due on the date and time indicated on the assignment. Each student has a total of three twenty-four hour extensions (“late days”) for the course. Late days can be used in twenty-four hour increments for any programming assignment due date. For programming projects done in pairs, late days will be charged to both students in the pair. *No additional extensions will be given for any reason*. Once all late days have been used up, late submissions will not be accepted.

7 Exam and Grading

Your final course grade will be based on: **40% programming assignments, 30% quizzes, and 30% final exam**. The final exam will be during the normally scheduled time.