Cybersecurity and Privacy Regulation (LAW 5380/INFSCI 2230)

Professor David Thaw Office: LAW 303 Phone: 412-624-9004

Email: dbthaw@pitt.edu (you must include "law5380" or "infsci2230" in the email subject to ensure it

gets to me!)¹

Spring 2016 Syllabus

<u>Students are responsible for keeping up-to-date with course information distributed via email and CourseWeb.</u>

Office Hours: 3:00pm – 4:00pm, Th 1:00pm – 2:00pm

(If you have an urgent matter to discuss, please contact me in advance of office hours to ensure I can accommodate you.)

Required Texts/Materials:

The principal reading assignments can be found in the casebook:

Computer Crime Law, 3rd ed. (Orin S. Kerr, ed., 2013) (designated below as "CB"); also 2015 (or 2016) Supplement

In addition, there may be certain assigned readings outside the casebook – these will be posted on the CourseWeb site. Some readings (in the casebook and/or on CourseWeb) may be designated as important background readings. These are not mandatory, but will be extremely useful to your deeper understanding of the assigned materials. I may touch briefly on the background readings in class but only as a means of providing you with some broader context.

Assignments/Grading:

Neither a technical background nor prior Cyberlaw experience is required or expected. Students will be graded on a combination of class participation, periodic writing assignments, and a group project:

- Class Participation (25%): regular in-class attendance is mandatory, and will factor substantially into each student's grade. On the first day of class, students will each be assigned a specific class period (beginning with Class 2) for which they will be responsible to lead the group discussion. Additionally, as the subject matter of this course is actively evolving, students will be expected to read a "news source of record" (e.g., the Washington Post)² to keep abreast of current events to facilitate class discussion.
- Response Papers (25%): students will each prepare two response papers over the course of the semester, each of which will discuss and respond to one or more of the readings for a class session. Students should select reading(s) with an academic focus (i.e., law review Articles or academic blog

¹ Spam filters <u>ARE</u> a real problem. Do not assume you are "safe" from spam filters. I reserve the right to treat all emails failing to conform to this standard as "not having been sent." (Emails from students failing to reach me due to spam filters *has* been a problem at every institution at which I have taught.)

² In the "Information Age" several valid alternatives to print-based newspapers exist. As such, leading online news sources (e.g., cnn.com) may fulfill this requirement.

posts) as opposed to background materials. Each paper should be approximately 3-5 pages double-spaced (approximately 1,000 words) in length. *Both papers must be submitted before the Spring Recess*.

• Group Project (50%): *To Be Determined after first class meeting*. (For reasons which will become apparent during the first class.)

COURSE POLICIES

I will go over these policies in detail on the first day of class, and will not revisit them over the course of the semester.³ All students are responsible (at all times) for knowing them thoroughly. The choice not to revisit or remind students of these policies is deliberate – it simulates both work environments and the industry standard in "contracts of adhesion" to which we are all subject on an increasingly wide basis throughout our lives.

With that said, the *primary* purpose of these policies is to make clear what I expect of you – and what *you* may expect of *me*. As with all things, they may require some adaptation on your part; I ask your patience in understanding that over the long-term, clear expectations set a working baseline upon which we can all rely. Also as with all things, we will treat each instance on a case-by-case basis.

Email Policy/Contacting Me:

When emailing me regarding a class matter, you <u>must</u> include the course number (e.g., ''law1234'' or ''infsci1234'', without the quotes).

As noted in a footnote above, and repeated here to emphasize its importance – this is to ensure teaching-related emails reach me and are properly prioritized. I have had (numerous) instances of emails not reaching me in the past because of spam filters.⁴

All class-related emails **not** following this policy will be treated as "not sent" for grading purposes, and I reserve the right not to respond to any class-related email not following this policy.

Email is a very useful tool which allows rapid, low-transaction-cost, asynchronous communication. That said, it is important to remember that "inbox bandwith," much like office hours, is a scarce resource. A professor would be just as overwhelmed by 30 substantive email requests in one afternoon as she would by 10 (let alone 30) students showing up at her office with individual questions at the same time.

Accordingly, the following are my expectations regarding email:

- All students are expected to check their email regularly (and are accordingly accountable).
- email is <u>not</u> a substitute for in-person discussion during office hours. If you want further explanation of a general topical area, please come to office hours or make an appointment to meet with me or speak by phone.

³ Unless changes in the semester or opportunities for improvement dictate, in which case students will be given appropriate notice of any changes.

⁴ Students interested in learning more about "good email subject practices" for professional environments are welcome – and encouraged – to chat with me during office hours.

- email <u>is</u> an excellent method for asking concise, specific substantive questions, as well as procedural or administrative questions. While these are (of course) welcome for real-time discussion, email may be a more suitable resource.
- **Email response time:** While this is never a "fixed" timeline, students should plan for <u>at least a two-business-day response time</u>. If you have a matter which is urgent, please indicate so in the subject line. For all other matters, please plan your work/studying/etc accordingly.

Laptops/Other Devices:

I allow laptops and other electronic devices in class when I teach. I find them to provide students useful opportunities to engage material in discussion, reduce waste paper, and – like many of you – I type far faster than I handwrite. Additionally, there are many advantages to having your class notes in electronic form.

That said, I am *extremely well-aware* of the ways in which laptops/devices can become a distraction in class. As such, I reserve the right – at any time and without notice – temporarily or permanently to ban laptops and/or other devices from the classroom if I find students are abusing this privilege and engaging in non-class related activities and/or otherwise being disruptive.

Students wishing to use multiple devices concurrently should be courteous to the space/needs of others.

The use of audible devices, including but not limited to mobile phones, is strictly prohibited in all circumstances.⁵ Students violating this policy may be asked to leave. Students violating this policy *are* subject to "The Donut Rule."

Course Attendance:

Course attendance policies will be discussed on the first day of class and later upon request.

Students with Disabilities:

Students who have disabilities who are requesting accommodation, <u>must</u> (per University policy) contact the University Office of Disability Resources and Services (http://www.drs.pitt.edu, 140 William Pitt Union, 412-648-7890) and should also contact the Associate Dean of Students in the Law School (Dean Kevin Deasy; deasy@pitt.edu). Please do so as early as possible in the semester.

DRS is the sole entity responsible for verifying disabilities and determining reasonable accommodations. *The Professor <u>does not</u> have the authority to make determinations regarding such accommodations.* The Associate Dean of Students oversees the implementation of accommodations.

(Please note: due to the anonymous grading policy, <u>under no circumstances should students discuss exam accommodations with professors</u>. If an issue arises, please consult with the Associate Dean of Students regarding how to proceed.)

Make-Up Classes:

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⁵ I understand that emergency situations can arise – and have had them arise myself. In the event such a legitimate emergency arises requiring that you have access to a mobile phone or similar device during a specific class period, please speak with me prior to that class period.

If make-up sessions need to be scheduled, the dates will be announced in advance. It is my policy that make-up classes <u>are</u> (audio) recorded so students who have conflicts may have the benefit of those materials. While I generally <u>do not</u> otherwise record classes (I will discuss this policy in class), students should be aware and expect that make-up classes are subject to audio recording.

In-Class Recording Policy:

Regularly-scheduled class sessions will <u>not</u> be recorded (in any form). This is to encourage and foster the open exchange of ideas and the learning process – it is the Professor's experience that "observer bias" strongly discourages participation and inquiry, particularly on the part of those most struggling with a topic.⁶

This policy does not apply to make-up sessions or other special class sessions, and these may be recorded upon request of students and/or at the discretion of the Professor. Students wishing to make their own recordings, however, must still obtain the <u>prior written permission</u> of the Professor.

Any student found using an unauthorized recording device will have that device confiscated and will be referred to appropriate University for disciplinary investigation. Class meetings are **not** "Public Meetings."

Students are always free to take still images (pictures) of materials on the board (at the end of class). If materials need to be erased during class, time will be provided for pictures.

"The Donut Rule":

(generally this applies to violations of the "audible devices" policy⁷)

Students violating any course policy are subject to a request that they "make whole" their fellow students by bringing donuts for their fellow students to the next class. This request is self-enforced by students and does not affect grading in any way. A student or students observing a violation may choose to initiate an Enforcement Action against the offender, oral argument for which will be heard after class by an "Administrative Law Judge" (the Professor, in most instances). The ALJ will make a recommendation to the class as a whole, which is responsible for choosing whether and how to implement that recommendation. Students may not find regulatory liability if the ALJ finds it absent, nor may they implement a penalty higher than that recommended by the ALJ.

Under no circumstances may any student be "compelled" to any sanction under this Rule.

⁶ Empirical evidence in the fields of Psychology and Sociology generally support this proposition, and students interested in the observation bias phenomenon are free and encouraged to discuss it with the Professor during office hours.

⁷ To-date, the only known "other" application of The Donut Rule was to the Professor. Students are invited to attempt to determine the details of the application (perhaps obviously, it wasn't an audible device), but – also perhaps obviously – the Professor will only confirm or deny whether a guess is correct.

COURSE SCHEDULE

This schedule is subject to change. Based on my experience, it is likely to change (slightly) in response to student needs. Students will be advised of changes.

For reasons which will become apparent on the first day, this syllabus will be finalized after the first class in response to day one class discussion. Syllabi from previous semesters are provided (further) below to give students an idea of the topical areas which will form the "core" of the course, but for those same reasons (and constant updates in the field!) changes will be made.

Jan 6 (Wed)

Wednesday, January 6 – No Class (rescheduling TBD as necessary)

Jan 13 (Wed)

Class introduction and project discussion

Jan 20 (Wed)

- Wikipedia "Internet" [HTML]
- Wikipedia "Computer Insecurity" [HTML]
- (Extremely Rapid) Introduction to Criminal Law -- Download Lecture Slides 1.1 5.2, I will *extremely* quickly go over these in class, hitting on key points to help you in future reading. You need not "read" these slides in advance, however you should have them available on your electronic device (the room projector is unlikely to work well for this purpose, given my height obscuring it) and you may wish to briefly scan them in advance so you know what topics will be covered.

[http://www.davidthaw.com/teaching/crim/lectureslides]

You may find the following background reading useful at some point (I don't plan on discussing it in any depth on Wednesday):

• Lawrence Lessig, Code v2.0 (2006) [PDF] Chapters 1-5, 7, 11

Jan 27 (Wed)

Topics:

- What is computer/cyber crime? (**CB 1-38**)
- (Physical) property crime approaches to cyber crimes

Readings:

• CB 1-38

read the Computer Fraud and Abuse Act, 18 U.S.C. § 1030
 [https://www.law.cornell.edu/uscode/text/18/1030] and
 [https://en.wikipedia.org/wiki/Computer_Fraud_and_Abuse_Act]

Feb 3 (Wed)

Topics:

- Introduction to "authorized access"
- What is "authorization"?

Readings:

- CB 38-68
- also read *United States v. Nosal*
 - o (9th Cir. en banc panel decision is in CB reading above)
 - o 9th Cir. panel below [http://cdn.ca9.uscourts.gov/datastore/opinions/2011/04/28/10-10038.pdf]
 - District Court decision on remand
 [http://www.davidthaw.com/teaching/cybercrime/NosalRemand.pdf]

Feb 10 (Wed)

Topics:

Norms and Computer Fraud

Readings:

• CB 68-90

Feb 17 (Wed)

Topics:

- Introduction to the CFAA Key Components
 - o CFAA § (a)(2): computer trespass
 - o CFAA § (a)(4): computer fraud
 - o CFAA § (a)(5): computer damage
- CFAA § (a)(2): computer trespass

Readings:

- CB 68-90
- CB 90-137

Feb 24 (Wed)

Topics:

- CFAA § (a)(4): computer fraud
- CFAA § (a)(5): computer damage

Readings:

• CB 90-137

Mar 2 (Wed)

Topics:

• Sentencing for (Federal) Computer Crimes

Readings:

• CB 328-343, 353-375

Mar 7-11 Spring Break

Mar 16 (Wed)

Topics:

- Sentencing for (Federal) Computer Crimes (cont.)
- Access and Authorization in the Modern Context

Readings:

- CB 328-343, 353-375
- *United States v. Auerenheimer* (https://en.wikipedia.org/wiki/Weev#AT.26T_data_breach)

Mar 23 (Wed)

Topics:

- Access and Authorization in the Modern Context (cont.)
- Electronic Searches and Seizures
- International/Jurisdictional Issues

Readings:

- *United States v. Auerenheimer* (https://en.wikipedia.org/wiki/Weev#AT.26T_data_breach)
- Riley v. California (https://en.wikipedia.org/wiki/Riley_v._California)
- CB 376-78 (read only through the first paragraph of "The Requirement of Government Action")
- CB 445 (read "search incident to arrest" paragraphs, as it's relevant to Riley)

Optional Readings:

Electronic Searches and Seizures:

- CB 473-74 (computer search/seizure procedures)
- CB 401-02 (what constitutes a "seizure")
- CB 387-88 (what constitutes a "search")
- CB 409-10, 430 (third-party consent), 435-46 (apparent authority)

Jurisdiction:

- CB 674-76
- CB 693-696
- CB 710-11 (procedural limits)
- CB 724 (international computer crimes; you might also find *United States v. Ivanov* interesting, which happened right near my hometown.)
- CB 752 (MLATs)
- CB 770-777 (Council of Europe Convention on Cybercrime)

Mar 23 (Wed)

Topics:

- Electronic Searches and Seizures (cont.)
- Law Enforcement Access to Encrypted Data

Readings:

Apple v. FBI Materials:

- Order Compelling Apple, Inc. to Assist Agents in Search (https://www.documentcloud.org/documents/2714001-SB-Shooter-Order-Compelling-Apple-Asst-iPhone.html)
- Amicus Curiae Brief of Law Professors in Support of Apple, Inc. (https://www.apple.com/pr/pdf/32_Law_Professors.pdf)
- Apple v. FBI: Brief in Support of Neither Party in San Bernardino iPhone Case (http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2746100)
- Apple's "Customer Letter" (http://www.apple.com/customer-letter/)

Background Materials:

- CB 513 (ex ante restrictions on computer warrants)
- CB 528-533 (encryption and 4th/5th amendment issues)
- CB 533-541 (In re Subpoena Duces Tecum)

Optional Readings:

- Government's original application for the search order (http://www.wired.com/wp-content/uploads/2016/02/SB-shooter-MOTION-seeking-asst-iPhone.pdf)
- Apple's objection to the order (http://www.wsj.com/public/resources/documents/applefiling.pdf)
- other briefs in support of Apple (http://www.apple.com/pr/library/2016/03/03Amicus-Briefs-in-Support-of-Apple.html)

Mar 30 (Wed)

Overflow topics

Apr 6 (Wed)

"Special Topics" Day

Apr 13 (Wed)

Group Project Presentations (Oral Arguments)