CS 3810 – Future Crimes
(Fall 2016)

General Information

Instructor: Richard C. Fry, PhD, Associate Professor of Computer Science
Instructor Open Office Hours Tuesday, Wednesday, Thursday 9:30 AM – 11 AM (EH 383)
Preferred Email: rich@richfry.com (direct/fastest) or rfry@weber.edu (forwarded)

Meeting Location (ELIZABETH HALL – SCHOOL OF COMPUTING ROOM 373)
Meeting Times – Mondays 1:30 PM – 3PM

Course Description

Technological advances have benefited our world in immeasurable ways, but there is an ominous flip side: our technology can be turned against us. Hackers can activate baby monitors to spy on families, thieves are analyzing social media posts to plot home invasions, and stalkers are exploiting the GPS on smart phones to track their victims' every move. We all know today's criminals can steal identities, drain online bank accounts, and wipe out computer servers, but that's just the beginning. To date, no computer has been created that could not be hacked—a sobering fact given our radical dependence on these machines for everything from our nation's power grid to air traffic control to financial services. Yet, as ubiquitous as technology seems today, just over the horizon is a tidal wave of scientific progress that will leave our heads spinning. If today's Internet is the size of a golf ball, tomorrows will be the size of the sun. Welcome to the Internet of Things, a living, breathing, global information grid where every physical object will be online. But with greater connections come greater risks and responsibilities. This course is about the "Dark Side" of technology.

Each class week, after assigned reading from the book *Future Crimes*, we will facilitate a group discussion of the ideas presented by the author. While I expect your "opinions" will be part of an active and engaging discussion, your challenge will also be to consider the data and think critically using a software engineering framework. That involves, in part, understanding how our positions as Computer Scientists affect our social responsibility to advocate for more awareness and education of technology's "dark side" as we develop, support and embrace it in our daily lives.

Course Objectives & Outcomes

To critically engage students with course-related material through group discussions, activities, and written assignments.

Course Fees

Course fees for the Computer Science major are designed to cover the costs of lab equipment maintenance and replacement including desktop and server computer systems and software; consumable materials and supplies; and support for lab aides, student tutors, and online instructional resources.

Accommodations

Any student requiring accommodations or services due to a disability must contact Services for Students with Disabilities (SSD) in room 181 of the Student Services Center. SSD can also arrange to provide course materials (including this syllabus) in alternative formats if necessary.

Textbook

REQUIRED: Future Crimes by Marc Goodman

- Publisher: Anchor; Reprint edition (January 12, 2016)
  - ISBN-10: 0804171459
  - ISBN-13: 978-0804171458

Grading Criteria

- **12 Attendance / Active Discussions in Class (36%)** Note: There are 13 meetings. You can miss 1 class free.
- **6 Discussion Posts (36%)** – Overall Quality and Quantity of Discussion Postings, Supplemental Research and general contributions to each Discussion Wiki (open for two weeks) outside of class
- **1 Discussion Co-Lead (8%)** – Helping to lead one of the chapter discussions in class
- **1 Research Paper (20%)** – Three to Five pages, in depth supplemental research, to coincide with being co-lead

94.5-100 = A, 89.5-92.4 = A-, 87.5-89.4 = B+, 81.5-87.4 = B, 79.5-81.4 = B-, 77.5-79.4 = C+, 71.5*-77.4 = C
*Minimum passing grade is 71.5%.

Calendar and Due Dates (SUBJECT TO CHANGE!!)

STUDENTS ABSOLUTELY MUST READ THE CHAPTER(S) PRIOR TO CLASS. COME PREPARED (with NOTES) to DISCUSS!!

CLASS MONDAY	MATERIAL DISCUSSED IN CLASS	FUTURE CRIMES CHAPTER	DISCUSSION C0-LEAD	AFTER CLASS FOLLOW-UP (CLOSES SUNDAY)
1: AUG 29	Introduction to Future Crimes	1		
	SEPT 5 – Labor Day No Class			Sun Sept 11: Discussion Wiki 1
2: SEPT 12	System Crash and Outlaws	2-3	Student 1 TBD	
3: SEPT 19	Not the customer – you're the product	4	Student 2 TBD	Sun Sept 25: Discussion Wiki 2
4: SEPT 26	Surveillance	5	Student 3 TBD	
5: OCT 3	Big Data and Phones	6-7	Student 4 TBD	Sun Oct 9: Discussion Wiki 3
6: OCT 10	In Screen we Trust	8-9	Student 5 TBD	
7: OCT 17	Crime Inc.	10	Student 6 TBD	Sun Oct 23: Discussion Wiki 3
8: OCT 24	Digital Underground - Dark Net	11	Student 7 TBD	
	OCT 31 – Halloween No Class			Sun Nov 6: Discussion Wiki 4
9: NOV 7	Hacking – Part 1	12	Student 8 TBD	
10: NOV 14	Hacking – Part 2	13-14	Student 9 TBD	Sun Nov 20: Discussion Wiki 5
11: NOV 21	Rise of the Machines	15	Student 10 TBD	
12: NOV 28	Next Generation and Surviving Progress	16-17	Student 11 TBD	
13: DEC 5	The Way Forward	18	Student 12 TBD	Sun Dec 11: Discussion Wiki 6

Last Update: 25 Aug 2016