

Syllabus: CS 377 Communication and Ethical Issues in Computing

3 Credit Hours

Prerequisite: CS 251, Data Structures

Fall 2015

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Class Times:

Lecture Section 1: MW 12:00–12:50, 220 Stevenson Hall

Lecture Section 2: MW 2:00–2:50, 312 Lincoln Hall

Lab/Workshop/Speaking Sections:

- Monday, 3:00–4:50, 100 Lincoln Hall
- Tuesday, 3:00–4:50, 315 Stevenson Hall
- Wednesday 3:00–4:50, 100 Lincoln Hall
- Friday, 12:00–1:50, 101 Stevenson Hall
- Friday, 3:00–4:50, 100 Lincoln Hall

You must be enrolled in one lecture and one lab. You must attend the session that you are enrolled in because there will be frequent graded exercises and required attendance in both lecture and lab, and you will get credit only for attending the one that you are registered in.

We do *not* have lab the first week of class.

Web Page, Blackboard, Piazza

We will make heavy use of Piazza. You have been enrolled if you were signed up for this course ahead of time, but otherwise will need to sign up at <https://piazza.com/uic/fall2015/cs377>; once signed up our homepage on piazza is at <https://piazza.com/uic/fall2015/cs377/home>.

We currently intend to use Blackboard *only* for submitting written work and for recording grades.

There is a static web page at <http://www.cs.uic.edu/CS377> just to have something world readable about our course.

We will also use a small number of Google Docs, so that students can jointly sign up for group presentation topics and do other things best done jointly.

Course Description, Goals, and Objectives

In this class you will learn a great deal about the fascinating public-policy, ethical, and legal issues from A (ad-blocking) to Z (zombie computers) that the computing and communications revolutions have spurred. Policies that may last for generations are going to be set *now*, in the first twenty years of the world of Google, smartphones (under ten years old!), and Facebook. You will also learn oral communication skills that will likely determine your long-term success as computer professionals. Your technical skills will get you your first job out of UIC; your *communication* skills will get you your first promotion to the levels that pay \$150,00 a year and up or perhaps your first million dollars of angel funding.

Formally, the learning outcomes for this course are that by the end of the course students will:

- Have an understanding of professional, ethical, legal, security and social issues and responsibilities.
- Be able to analyze the local and global impact of computing on individuals, organizations, and society.
- Be able to communicate effectively with a range of audiences.

GRADING CRITERIA

This policy is a guide and subject to change at any time for any reason.

Group Presentations	15%
*Public speaking (and feedback forms and exercise) grades from lab/workshop sections	30%
Pop quizzes via clicker in lecture and/or lab and any very short writing assignments	25%
Term paper	20%
Final Exam if given	10%
<i>Total:</i>	100%

Updated to reflect less weight on clicker quizzes and no final exam

Group Presentations	20%
*Public speaking (and feedback forms and exercise) grades from lab/workshop sections	33%
Pop quizzes via clicker in lecture and/or lab and any very short writing assignments	22%
Term paper	25%
No Final Exam	0%
<i>Total:</i>	100%

*Lab Session Breakdown

Attendance	70%
In-Class Graded Presentations (3)	20%
Out-of-Class Activities (2)	10%

Lab sessions will be graded primarily on attendance. You are allowed ONE unexcused absence. Each additional absence will result in a deduction of one half letter grade from total *overall course* grade. There will be 3 graded presentations. Rubrics and criteria will be provided at the time of assignment. In addition, 10% of the grade is devoted to outside activities that are the responsibility of the students. Students will need to find and attend at least 2 events, talks, meet-ups, tech incubators, social events, etc. and report back with a reflection on the experience. A full schedule of lab and workshop topics will be provided at the first session and uploaded to the class website for future reference.

The final exam may or may not be given, depending on how the semester goes. If it is not given, final grades will be calculated as a percent with those points absent. (For example if the final exam is worth 10% and the final is not given, then final grades will be calculated as a percentage of 90 total points rather than 100 total points.)

COURSE MATERIALS

Required Texts and materials

1. Michael J. Quinn, *Ethics for the Information Age*, 6th e., Pearson, 2015. (If you find the 5th edition from 2013 is vastly cheaper, you can use it. You will likely miss an occasional quiz question because there is some new material. Earlier editions than the fifth are not acceptable.)
2. We will be using [iClickers](#) in class, both for anonymous impromptu questions as well as for pop quizzes. The iClicker 2 (~\$46) is sold in the UIC bookstore. The older iClicker version is fine as well. ***Do not*** register for web-Clicker, which runs on a smartphone or laptop, as this option is too slow for our use. You will need to use Blackboard to register your iClicker with your identity. You need a clicker for every lecture sessions starting Wednesday of Week 1.
3. Additional text, with some required reading: Abelson, Ledeen, and Lewis, *Blown to Bits*, 2008. See the book's website <http://bitsbook.com>, which contains links where you can download the book for free. This is a somewhat dated, not too technical book on early twenty-first century privacy issues.

Topics, Readings, By Week

Tentative! Subject to change without notice. Amount of time per subject likely to change based on class interest. We will maintain an updated, live version of this list online, probably on Piazza.

Readings to be completed before the start of Monday lecture except where stated otherwise.

1. Introduction to IT policy issues; start History of Computing. January 10–12. Discussion of term paper, lab/workshop sessions. Read *Blown to Bits*, Chapter 1. (Reading due for start of lecture, Wed., and may be quizzed), and if you have obtained the book, read Quinn Chapter 1 sections: Intro, and IT policy.
2. History of Computing; start classical ethics. Read Quinn, 1.2–1.4.
3. No class Monday of Week 3 (Labor Day). Introduction to classic ethics. Read Quinn, Chapter 2.1, and 2.6 through end of Chapter 2. Will go into Week 4.

4. Computer reliability, and errors and failures. Liability. Risks, importance of professionalism. Read Quinn, Chapter 8 through the section on the Therac-25 case, and look through [Leveson's Report on the Therac-25 incident](#) for more depth than Quinn has.
5. (Previous two topics will take us through Week 5.)
6. Freedom of expression: attempts to censor the Internet, filters, anonymity, also the problem of spam. Quinn 3.1–3.6.
7. Intellectual property: copyright and fair use. Copyright versus patent versus trade secret. Filesharing and “piracy” of software, music, movies, etc. DMCA controversies. Expect to have one to two outside speakers on how you can protect the software that you write to make a living. Read Quinn, Chapter 4.1–4.7.
8. Intellectual property 2: Open-Source software and Creative Commons. Quinn, rest of Chapter 4.
9. Privacy 1: Philosophy, what they know, data aggregation, how 2015 is *1984*. Facebook. Read Quinn Chapter 5. (Optional: Read *Bits* Chapter 2)
10. Privacy 2: Government surveillance, law enforcement, and US laws relating to same. Read Quinn Chapter 6.
11. Privacy 3: An overview of the Snowden revelations about the NSA.
12. Cyber-Crime: Identity theft, malware, hackers, bots, etc. Quinn Chapter 3 subsection on Identity Theft and Chapter 7.
13. Computers' impact on Society, work, and wealth: Workplace issues, the Digital Divide, the “Winner-Take-All Society.” Quinn Chapter 10.
14. Ethical issues for computing professionals. Quinn Chapter 9.
15. Case studies if time, but probably above topics will extend to fill up 15 weeks.

Presentations (or leading discussion or debate) in Lecture Section (Group)

Groups and Dates: You will be assigned to a group, generally of three students. See Piazza for a post early in the semester on group assignments, and which date each group is assigned. Your topic should have something to do with the topics we are discussing roughly around that week or else be a topic that is not anywhere in our syllabus at all, but still relevant to CS 377. (Ask Prof. Sloan if you are in doubt.) By the beginning of the third week of class you must email your specific topic for my approval, as well as indicating whether you will be lecturing, moderating the class discussion or having a debate.

Your Presentation: For your chosen topic you will then give a presentation, lead the class in a discussion, or have a debate. Your prepared portion of your discussion or debate should last 20–25 minutes, *including* at least 5 minutes at the end for questions / interaction with the class. Part of your discussion/debate grade will be the extent to which your presentation stimulates thought or questions, and your ability to answer questions/challenges given by the class in response to your comments. Plan your time carefully; you should not go over the 25 minute total.

For discussions, students should share responsibility for preparation and presentation. The focus here is to engage the class, to get them interested, and to get them talking along the specific lines of your topic.

For debates (in a group presentation), students should again share the time evenly, presenting views and rebuttals of opponents' positions. You should be impassioned in your argumentation, attempting to persuade the listeners to your views by facts, analogy, and logical arguments.

Grading for the group presentations

Students (if in a group) should share responsibility for preparation and presentation. For Leading Discussions,

everyone in the group will receive the same grade. For Debates, you will be graded individually.

You will be graded on a scale of 0 to 4 for each of the following 5 areas:

1. Interesting. Engages the class and stimulates discussion. Well thought-out questions for the class.
2. Communicates verbally effectively. (Argues convincingly for debates)
3. Use of visual aids (overheads, board, web, handouts, etc.)
4. Understands the issues; Knows the facts, main points, uses supporting cases/scenarios/questions.
5. Well-prepared; Knows exactly who is doing what in the group; Uses appropriate amount of time, including 5 minutes at the end for interaction with class.

This gives a possible total of 20 points. For each area, a grade of 3 is considered normal, for a "normal" total score of 15. Only truly outstanding performance will get a score higher than a 3 (out of 4) for any of the above 4 areas.

Writing Assignments

This course has a term paper. I will post detailed directions shortly. The term paper will be graded primarily on content, but I will also grade the mechanics of the writing. For the term paper, each of you will review a draft of another student's paper, and a few of the points for the term paper will be based on that review.

Mechanics (grammar, spelling, punctuation, etc.) will count some of the grade for all writing assignments.

For (free!) help with your writing, I encourage you to use the [UIC Writing Center](#). Writing tutors are your friends and allies!

There will also be some number of very short (range of two sentences to 300 words, depending) assignments. The first is **due by Saturday, August 29**, and preferably will be submitted before lecture on Wednesday.

Quizzes

Clicker Quizzes will be most often given at the beginning of lecture. Those who arrive late will have less time or will entirely miss the quiz, which will last around 5 minutes.

Quizzes will usually be based on previous lectures and assigned readings. No makeup quizzes will be given, but the lowest quiz grade will be dropped.

COURSE POLICIES

Student Courtesy Policy

The use of cell phones is strictly prohibited. Place your phone on mute before you come to class and leave it in your bag or pocket for the duration of class. Violating this policy will negatively affect your grade.

Attendance Policy

Attendance and participation in lectures is required; there will be frequent rather easy pop quizzes and if you are not there you will receive grades of zero on the quiz. Significant numbers of unexcused missed lecture section quizzes will result in course grades being lowered in addition to the points being lost on the quizzes.

Attendance at lab sessions is required. You are permitted one unexcused absence from lab during the semester. After that, each unexcused absence from lab will lower your course grade one-half letter grade.

Academic Integrity Policy

Folks, this is an ethics course. Any sort of cheating or other academic misconduct, such as plagiarism, will result in an *F for the course*, and your being reported to the relevant campus authorities. If the academic misconduct is not a first offense, sanctions may be greater, up to and including suspension or expulsion from UIC.

Incomplete Policy

The *UIC Undergraduate catalog* states that in addition to needing excellent justification for an incomplete, a student must also have been “making satisfactory progress in the course.”

Therefore, *no matter how good your excuse*, I will not grant you an incomplete if you have less than a C average at the time you ask for an incomplete.

OTHER

Valuable Resource for Term Paper Writers: The Writing Center, located in Grant Hall 105, offers one-on-one consultation with student writers who need help developing ideas, or need advice, guidance or additional instruction on any aspects of writing in any class. Tutors are prepared to spend fifty minutes per appointment, and there is no limit to the number of tutoring sessions you can have each semester. Make an appointment and be on time! Bring the paper on which you're working, as well as any related drafts or notes, and information about the assignment. For an appointment, call the Writing Center at (312) 413-2206, or stop by room 105 of Grant Hall. Visit the Writing Center website at www.uic.edu/depts/engl/writing for more information.

Acknowledgments

The structure of the presentations comes ultimately from Prof. Dale Reed's versions of CS 335 and 377 from 2009 through 2015.

The structure of the term paper is based on suggestions of Sara Baase (author of a textbook sometimes used for this course in other semesters).

The first week smartphone exercise is based on the “Bored but Brilliant Project” (trying to get people to put down their smartphones, recover the lost art of spacing out, and perhaps thereby get inspired) of Manoush Zomorodi’s *Note to Self* podcast on WNYC.