

CSCI 102T: The Socio-Techno Web

Syllabus for Fall 2015

General Info

- Instructor:** Jeannie Albrecht
Email: jeannie@cs.williams.edu
Office: TCL 304
- Meetings:** Tue, Wed, or Thur at selected times for 60 minutes in TCL 304
- Lab:** Thur 1:00pm – 2:25pm in TCL 217
- Webpage:** <http://www.cs.williams.edu/~jeannie/cs102t/index.html>
(See webpage for assignments, problem sets, labs, and due dates.)
- Book:** *Blown to Bits*, by Hal Abelson, Ken Leeden, and Harry Lewis
(Required. Available in bookstore.)
- Other books:** *Weaving the Web*, by Tim Berners-Lee
Here Comes Everyone, by Clay Shirky
Networks, Crowds, and Markets, by David Easley and Jon Kleinberg
The Search, by John Battelle
Peer-to-Peer: Harnessing the Power of Disruptive Technologies, by A. Oram
(Available online. We'll read a few chapters from these.)

Course Description

This course introduces many fundamental concepts in computer science by examining the social aspects of computing. As more and more people use the technologies and services available via the Internet, online environments like Facebook, Amazon, Google, Twitter, and blogs are flourishing. However, several of the problems related to security, privacy, and trust that exist in the real world transfer and become amplified in the virtual world created by the ubiquity and pervasiveness of the Internet. In this course, we will investigate how the social, technological, and natural worlds are connected, and how the study of networks sheds light on these connections. Topics include the structure of the Social Web and networks in general; issues such as virtual identity, personal and group privacy, trust evaluation and propagation, and online security; and the technology, economics, and politics of Web information and online communities. No background in computer science or programming is required or expected.

Course Structure

This course will be taught as a tutorial. You and your tutorial partner will normally meet with me each week to discuss the readings and exercises I assigned for that week. Meetings will be

held in my office (TCL 304). In the “canonical” tutorial format, all students are responsible for the readings, but each week one student in the group will be the main writer, and the other will be the respondent. I will, in general, expect each of you to come to every meeting fully prepared to present analyses of the readings and solutions to any assigned exercises.

The main writer is responsible for writing a 3–4 page (900–1200 words) paper responding to the readings. As the main writer, you should incorporate external articles from other sources (i.e., popular press) to support and strengthen your views and arguments. Your paper must be posted to the website that you will develop by 9:00am the day before our tutorial meeting. In other words, if your tutorial meeting is at noon on Wednesday, the paper must be posted by 9:00am on Tuesday. For the first week, you will email the paper to me and your partner since you will not yet have a website. You should also be prepared to read your paper aloud in our tutorial meeting.

The respondent is responsible for writing a 1–2 page (no more than 500 words) critique of the main writer’s paper. The critique should briefly summarize the main argument of the paper, and raise questions about the main writer’s stance. As the respondent, you should play devil’s advocate, and write a response that defends an opposing view. Like the main writer, you should incorporate external articles from other sources (i.e., popular press) to support and strengthen your views and arguments. You should post your response to your website before your scheduled tutorial meeting. For the first week, you will email your response to me and bring a copy to our meeting. You should also be prepared to read your response aloud in our tutorial meeting.

Depending on how the course evolves, you may be required to complete one or more problem sets that focus on more technical components in addition to (or instead of) the weekly reading and writing assignments discussed above. In this case, both partners are expected to complete the problems and come to our meeting prepared to discuss the solutions.

Grading Details

Grades will be computed as follows:

30% Meeting Preparation and Participation	20% Midterm Exam
30% Written Assignments and Labs	20% Final Paper or Project

Each of these items are explained in detail in the following sections.

Meeting Preparation

Preparedness and active participation in meetings will be evaluated based on the following three components:

- Your responsibilities as a tutorial partner. The main writer needs to post their paper **no later than 9am on the day before the tutorial session meets**. The respondent needs to post a response to the paper **before the scheduled tutorial session**.
- Your preparation for class. This is based on my assessment of how effectively you have prepared for our meeting and the quality of your response.

- Your participation in class. This is based on my assessment of how effectively and constructively you express your ideas and ask questions, and how thoughtfully you respond to comments and questions.

Written Assignments and Labs

Everyone will complete approximately six 3–4 page papers/problem sets over the course of the semester. The papers should summarize the key ideas from the readings, and take a stance on some of the controversial issues addressed. The goal of the papers is to make a persuasive argument (with external support when possible) about one or two of the main ideas discussed in the readings. What stance do the author's take on these issues? Do you agree or disagree with the points they make? Are these issues important and relevant to today's computing trends? How do these issues impact society?

In addition to the weekly writing assignments and tutorial meetings, there will also be weekly labs. Labs will focus on learning more about some of the fundamental technologies used on the Web, including HTML and Javascript. Your lab work will be evaluated based on quality, completeness, correctness, and creativity. Details about lab, including assignment submission, will be discussed during our scheduled lab time.

Midterm Exam

There will a written midterm examination in this course. The exam will be closed book, closed notes, and will stress conceptual understanding of the material. Details regarding the specific format of the exam will be discussed later in the semester.

Final Paper or Project

In lieu of a final exam, you will complete a final paper or project on a topic of your choosing. Papers are to be completed individually. Projects may be completed individually or with a partner with prior approval. More details will be discussed later in the semester.

Honor Code

Written assignments and examinations are to be completed individually. You will be allowed to work with a partner on some labs, however, you should assume that all work is to be completed individually unless the assignment or lab specifies that partners are permitted. Please be sure to give explicit credit for any help received. If you have any doubts about this, ask me whether or not collaboration is appropriate. Uncredited collaborations will be considered a violation of the honor code and will be handled appropriately. The computer science honor code and computer usage policy applies to all material in this class. Please review <http://www.cs.williams.edu/resources/usage.pdf>.

All papers must use either the Chicago Manual of Style Documentary Note footnotes (instructions: <http://library.williams.edu/citing/styles/chicago1.php>) OR the MLA Style, 7th Edition Parenthetical References (instructions: <http://library.williams.edu/citing/styles/mla.php>). All direct quotations, paraphrased language, ideas, and facts must be documented with proper citation. If you use Chicago Style, you do not need a bibliography; if you use MLA style, you need to also include a Works Cited list.

Calendar

The following calendar is a tentative schedule of topics that we will cover in class. **This schedule of topics will likely change**, so you should check the course webpage frequently for an updated calendar and the associated reading assignments/problem sets.

Date	Topic	Lab
Week 0: Sept 10	Course Overview	No lab
Week 1: Sept 14–18	Digital Explosion	Lab 1: HTML
Week 2: Sept 21–25	Social Networks	Lab 2: Decimal, Binary, Hex
Week 3: Sept 28–Oct 2	Privacy & Information Access	Lab 3: Images
Week 4: Oct 5–9	Electronic File Formats	Lab 4: Cascading Style Sheets
Week 5: Oct 12–16	No meetings	No lab
Week 6: Oct 19–23	Search Engines	Lab 5: JavaScript & jQuery
Week 7: Oct 26–Oct 30	Google	Lab 6: JavaScript & jQuery
Week 8: Nov 2–6	Network Graphs	Lab 7: Strings and Encryption
Week 9: Nov 9–13	Cryptography	Lab 8: Practice Makes Perfect!
Week 10: Nov 16–20	Digital Copyright Wars	No lab (work on midterm)
Week 11: Nov 23– 27	Thanksgiving, Midterm due	No lab
Week 12: Nov 30–Dec 4	Peer-to-Peer Technologies	Lab 9: Frosty the Snowman
Week 13: Dec 7–Dec 11	Email	TBD