

CSCI 1800 Cybersecurity and International Relations

Syllabus

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Description:

The global Internet shortens distances, makes businesses more efficient and facilitates greater social interaction. At the same time, it exposes vital national resources to exploitation and makes it easier for the international criminal element to prey on innocent Internet users. Cybersecurity is concerned with making the Internet a more secure and trustworthy environment. In this course we study this topic from the technological and policy points of view. The goal is to facilitate communication across the divide that normally characterizes the technological and policy communities. WRIT.

Prerequisites: None.

Time and Location: Monday, Wednesday 3-4:20, CIT 368

Course Website: <http://cs.brown.edu/courses/cs180>

Mon 3-4:20	Wed 3-4:20	Labs
Tech/Policy Overview		
1/30 Policy Overview	1/25 Introduction	
2/6 Vulnerabilities	2/1 Hardware & Software	
2/13 Design & Operation of the Internet	2/8 Internet Naming & Routing	
Security		
2/20 Long Weekend	2/15 Cyber Crime	Tech/Policy
2/27 Major Cyber Attacks	2/22 Attribution & Privacy	
3/6 Secure Comm & Auth.	3/1 Cyber Conflict	
Economics		
3/13 Bitcoin/Blockchain	3/8 Cyber Economics (Guest)	Security
Student Press Conferences		
3/20 Student Press Conferences	3/15 Student Press Conferences	Economics
	3/22 Student Press Conferences	
Spring Break 3/25 – 4/2		
Governance		
4/3 Cyber Crime Convention	4/5 Internet Governance I	
4/10 Internet Governance II	4/12 International Norms Process	
Contemporary Topics		
4/17 Cyber Influence Ops (Guest)	4/19 Cyberwar Risks	Governance

4/24 Engineering for Security

4/26 Internet of Things

5/1 Reading Week

5/3 Reading Week

Final Paper Prep

Staff:

- Professor:
John E. Savage (John_Savage@brown.edu)
Office: CIT 503
Office Hours: By appointment.
- Head TAs:
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Assignments	Credit Per	Totals
• Five Labs	2	10
• Three Short Papers	10	30
• Student Press Conference	10	10
• Mid-Semester Paper	15	15
• Final Paper	30	30
• Class Participation	5	5

Writing:

- Students will write three short papers, 3~4 pages double-spaced, in the technology/policy, security and governance lecture categories. Short papers should incorporate at least one of the required/optional readings and at most three required/optional readings.
- Mid-semester papers involve small student groups, ideally from different academic backgrounds. Partners work collaboratively to address topics with both policy and technology dimensions.
- The final research paper is designed to allow students to think critically about a big issue related to the course that they would like to study further. While the paper can expand upon course material and previous assignments, it should also include academic sources, news articles, and other vetted sources that could provide supplementary information about the chosen topic. The instructor and TAs will be available to discuss potential topics. They must approve all final topics.

- See the course website for dates on which assignments are posted and due dates announced.

Thesis Statement

All papers should contain a **thesis**. A thesis declares what you wish to assert (i.e. make an argument). Your thesis should be arguable, provable through text evidence, surprising, and specific. Papers should be well organized, clear, and demonstrate an understanding of the issues at hand. They should also address a counterargument. All sources used should be cited appropriately. Plagiarism will not be tolerated.

Writing Center

Brown's Writing Center (see <https://www.brown.edu/academics/college/support/writing-center/>) is available to help students with all stages of the writing process, which you may find of great value.

Readings:

Students will be expected to read approximately 50 pages of material per week. Readings will be posted on the course website.

Student Press Conference:

This debate style exercise aims to help students understand how to form a policy response to a technical threat or attack on the person or organization, which they represent. Students will work in teams to present an argument outlining their stakes and debate positions, and backing those positions. Debate topics will be announced. They deal with important contemporary cybersecurity events.

Labs:

- Purpose: Labs provide time for students to discuss and reflect on course readings in small-sized groups, and to learn from their peers.
- Time and Location: Signup forms will be circulated after shopping period ends.
- Expectations: For each lab, you will be expected to write about 150 words on something you find interesting in the required/optional readings on the course section in which it falls. This should write-up should be posted to Canvas before section.
- These deliverables will count for 50% of your lab grade and will be graded mostly on completion (although we reserve the right to not accept assignments that display inadequate effort). The remaining 50% will be based on contribution to discussion.

Late Days:

There will be no late days on assignments. However, if there are extenuating circumstances, please contact Professor Savage before the assignment is due.

Course Communications:

- Please post all questions on **Piazza** (<http://piazza.com/brown/spring2017/cs1800>) or email the TA list at cs1800tas@lists.brown.edu.
- Meeting with TAs: Although there will not be official TA hours, students are encouraged to set up individual meetings with TAs.

- **Contesting a Grade:** You are encouraged to look over your papers after they have been graded. If you have any questions regarding your grade, please email your grader. If grading issue cannot be resolved, you should talk with HTAs or Professor Savage.

Time Expectations:

Over 14 weeks, students will spend 1.5 hours per class (37.5 hours total). Required reading is expected to take up approximately 4-6 hours per week (70 hours total). Preparing for student press conference should take up about 5 hours. Preparing for and attending labs should take up 1.5 hours per lab (7.5 hours total). Writing short papers, mid-semester paper, and final paper are estimated to require about 60 hours over the term. The expected total time is 180 hours.

Audit Policy: To receive Audit credit for this course a student must either complete the final paper or the three short responses papers with a passing grade.

Academic Honesty:

We adhere strictly to Brown's Academic Code posted at <https://www.brown.edu/academics/college/degree/policies/academic-code>. Violation of the Academic Code can result in some or all of the punishments identified by the university. Copying from your own previously submitted work is also considered a form of plagiarism and will be handled accordingly.

Students with disabilities:

Brown University is committed to full inclusion of all students. Please inform Professor Savage early in the term if you have a disability or other condition that might require accommodations or modification of any of these course procedures. You may speak with him after class or during office hours. For more information, please contact Student and Employee Accessibility Services at (401) 863-9588 or SEAS@brown.edu.