

# CSCI 1800 Cybersecurity and International Relations

## Syllabus

**John E. Savage**

**Office Hours:** By appointment

**Brown University**

## Overview

**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 PM, Barus & Holley 168

**Course Website:** <http://cs.brown.edu/courses/csci1800>

## Class Schedule

Date	Topic	Sections	Assignments	
Wed, 1/24	Introduction	<b>No Section</b>	N/A	
Mon, 1/29	Policy Overview			
Wed, 1/31	Hardware & Software		Paper 1 Released	
Mon, 2/5	Hardware & Software Vulnerabilities	Section 1	Paper 1	
Wed, 2/7	Internet Naming & Routing Protocols			
Mon, 2/12	Careers in Cybersecurity <b>Guest Speaker</b>	Section 2		
Wed, 2/14	Design & Operation of the Internet			

Mon, 2/19	<b>LONG WEEKEND (No Class)</b>	<b>No Section</b>	Paper 1 Due; Paper 2 Released
Wed, 2/21	Cyber Exploits		Paper 2
Mon, 2/26	Attribution & Privacy	Section 3	
Wed, 2/28	Major Cyber Attacks	Section 4	
Mon, 3/5	Secure Communications & Authorization		
Wed, 3/7	Cyber Conflict	Section 5	
Mon, 3/12	Cyber Economics		
Wed, 3/14	Bitcoin & Blockchain	N/A	
Mon, 3/19	Transborder Cybercrime	Section 6	Paper 3 Released
Wed, 3/21	Internet Governance		Paper 3
Mon, 3/26	<b>SPRING RECESS (No Class)</b>	<b>No Section</b>	
Wed, 3/28	<b>SPRING RECESS (No Class)</b>		
Mon, 4/2	International Cyber Norms Process	Section 7	Paper 3
Wed, 4/4	Social Media & Propaganda		
Mon, 4/9	AI & Ethics	Section 8	Paper 3 Due; Final Paper Released
Wed, 4/11	Engineering for Security		Section 9
Mon, 4/16	Growing Risk of Strategic Surprise, <b>Guest Speaker</b>	Final Paper	
Wed, 4/18	Defense in Depth		

Mon, 4/23	The Role of Intelligence and Information Sharing, <b>Guest Speaker</b>	<b>No Section</b>	Final Paper
Wed, 4/25	Future Directions		
Mon, 4/30	Reading Period		
Wed, 5/2			
Mon, 5/7			
Wed, 5/9	Exam Period		Final Paper Due

## Grading Policy

<b>Category</b>	<b>Credit Per</b>	<b>Total</b>
Section Attendance and Participation	1.66	15
Section Presentation	15	15
Three Short Papers	10	30
Final Paper	35	35
Class Participation/iClicker	5	5

## Grade Complaints

Grade complaints must be filed the week after grades are returned. Please contact one of the TAs that graded your paper for a re-grade.

## Writing

- Students will write three short papers, 3-4 pages double-spaced, for each of the lecture categories. Short papers should incorporate at least one of the required/optional readings and at most three required/optional readings.
- The final research paper is designed to allow students to think critically about an issue or concept related to international relations and cybersecurity 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.

## Readings

Students will be expected to read 30-50 pages of material per week. Readings will be posted on the course website.

## Sections

- Purpose: Sections are designed 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 sent out at the end of shopping period.
- Expectations: Sections are 1 hour sections designed to discuss and further study the lecture material. They meet weekly, except over Presidents Day week, Spring Break, and Reading Period. Sections will generally be broken into two components: presentations and discussion. Each week will begin with a 15-20 minute presentation by a group of 3 or 4 students that will deeply cover a specific event or topic related to that weeks material, followed by approximately 30 minutes of discussions relating to the weekly readings and responses. Please submit your presentations to your section TAs before section begins. Students are expected to answer (100-250 words) a reading response question on canvas before they arrive at section on weeks that they are **not** presenting. Section grades will be split evenly between attendance and participation (including the Canvas post).

## Late Days

This course does not have a late day policy. However, if there are any issues, health or otherwise, please contact Professor Savage before the assignment is due.

## Course Communications

- For all questions, please email the TA list at [cs1800tas@lists.brown.edu](mailto:cs1800tas@lists.brown.edu).
- TA Hours: 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 a grading issue cannot be resolved, you should talk with HTAs or Professor Savage.

## Time Expectations

Over 13 weeks, students will spend 1 hour and 20 minutes per class (35 hours total). Required reading is expected to take up approximately 4-6 hours per week (65 hours total). Preparing for and attending sections should take up to 1.5 hours per section (13.5 hours total). Section presentations should take up to ~10 hours to prepare. Writing short papers and the final paper are estimated to require about 50 hours over the term.

## Academic Honesty

We adhere strictly to Brown's Academic Code. Please see [here](#) for detailed information. Violation of the Academic Code can result in some or all of the punishments detailed by the university. Copying from your own previously submitted work is also considered a form of plagiarism and will be handled accordingly.

## Mental Health

If at any time you feel under intense pressure, or feel as though psychological issues hold you back at Brown, then you may contact [Brown Counseling And Psychological Services \(CAPS\)](#) for further assistance.

## 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 Professor Savage after class or during office hours. For more information, please contact Student and Employee Accessibility Services at 4018639588 or SEAS@brown.edu.