

Gabriel Kaptchuk — Teaching Statement

Teaching Philosophy. I first discovered my love of teaching when I informally helped friends with coursework during college. By articulating and externalizing the intuition that I had acquired, I was able to simultaneously assist my friends and sharpen my own intuition. Spurred by these formative experiences, I actively invested in my teaching skills throughout my PhD and as Research Faculty. I summarize my teaching experiences below and attach relevant course reviews at the end of this statement.

My teaching philosophy focuses on engagement and intuition. I engage students by (1) highlighting the social context and real-world relevance of the content, (2) clearly demonstrating why I personally find the material interesting and engaging, and (3) making sure that my course content caters to students with different backgrounds and learning styles. In my courses, I teach students to think like computer scientists by explaining *why* each example and topic appears in the curriculum, explicitly highlighting the abstract concepts that I expect students to retain. This helps students engage with the material without feeling compelled to memorize every detail of each example. Freeing the students from the burden of unnecessary memorization lets them focus on absorbing the ideas that will be valuable later in their careers while reducing the stress they feel about the course. Finally, I build systems into my courses that allow me to dynamically adjust the course based on student need. For instance, I have students in my Network Security course share their confusions once a week in an open-ended form, and I gathered student feedback using a mid-semester survey. Low-stakes feedback mechanisms make students feel invested in the teaching process, improves my effectiveness, and ensure students with different educational backgrounds are supported.

I'm comfortable teaching a wide breadth of traditional computer science courses, including introductory cryptography, network security, computer networks, introductory algorithms, and data structures. I've also taught interdisciplinary courses, including "Law for Algorithms," a course cross-listed between the Data Science faculty and the Law School, and "Confronting Surveillance," a seminar course designed to illustrate the ways in which technology is harnessed as a surveillance tool and harms communities. In the future, I hope to combine the themes and readings that emerged in this seminar with technical content on privacy and data science into a full course.

Teaching Experience. I now briefly summarize my experience in reverse chronological order. I include course ratings and instructor ratings gathered from student reviews, along with pointers to the full reviews.

CS558 Network Security. Boston University, Spring 2022 & Spring 2021. (*Course reviews for Spring 2022 on pages 3-6 and for Spring 2021 on pages 9-11*) When I arrived at BU, I was assigned the Network Security course. While this course was previously taught at BU, the content previously covered had been transitioned to a prerequisite course. As such, I completely redesigned this course. It covers securing network protocols, TLS, Tor and censorship circumvention, and secure messaging protocols. Additionally, the course briefly covered the socio-political context in which these protocols operated.

In Spring 2021, I taught the course in a hybrid mode, while in Spring 2022 I made the transition to fully in-person instruction. Students gave the course an **overall rating of 4.84/5 (Spring 2021) and 4.3/5 (Spring 2022)**, and gave me an **instructor rating of 4.88/5 (Spring 2021) and 4.5/5 (Spring 2022)**. While BU does not systematically collect and compare course ratings, I have been informed that these ratings are significantly above the ratings most instructors expect for a course of this kind. Below are also several open-ended responses shared by students in the course:

- "Absolutely my favorite professor I have ever encountered at BU" (Spring 22)
- "Course was by far my favorite higher level CS course I've taken. Prof Kaptchuk was fantastic in his explanations of the topics and his ability to generate interest in the topics we've covered" (Spring 22)
- "Gabe is hands down one of the best instructors I have had. He was so helpful not only with course material but also as a mentor for internships, career, etc. I really enjoyed this class and his passionate nature about what he is teaching makes the class really valuable" (Spring 21)
- "The best course in my 4 years of college" (Spring 21)

DS457 Law for Algorithms. Boston University, Spring 2022. (*Course reviews on pages 7-8*) I co-taught Law for Algorithms, a cross-listed course between Data Science and Law, with Andy Sellars (Law)

and Ran Canetti (CS). The course covers points of intersection between computing and the law, including issues of privacy, trust, transparency, fairness, and bias. This course has been taught for several years at BU, but requires constant updating to keep current with the rapidly emerging field of CS+Law. The CS students gave the course a **overall rating of 4.2/5**, and gave me an **instructor rating of 4.6/5**.

DS199 Confronting Surveillance. Boston University, Spring 2022. (*No course reviews collected for seminar courses*) This 1-credit speaker series featured 9 distinguished speakers, including academics, activists, musicians, and journalists, who spoke about the ways in which technology enables harmful surveillance. The course had 15 students enrolled, who attended lectures, engages with the speakers, and participated in small group discussions.

EN601.414 Computer Networks. Johns Hopkins University, Spring 2020. (*Course reviews on pages 12-17*) During my final semester as a PhD student at Johns Hopkins University, I co-taught Computer Networks with my advisor, Avi Rubin. We were each assigned a section of 60 students, but chose to divide teaching responsibilities by section (*i.e.* during weeks when we were covering my topics, I would teach both sections). This semester was particularly challenging, as the COVID-19 pandemic required a mid-semester transition to remote teaching. Despite the logistical difficulties, students gave the course a **course quality rating of 4.46/5** (department average 3.75/5) and gave me an **instructor effectiveness rating of 4.88/5** (department average 3.97/5).

EN601.226 Data Structures. Johns Hopkins University, Summer 2019. (*Course reviews on pages 18-22*) My first experience teaching a full course was teaching Data Structures at Johns Hopkins University in Summer 2019. This was an intensive 4 week term with 13 hours of lecture each week. I co-taught the course with Joanne Selinski from material developed by faculty in the Computer Science department; Joanne taught 2 of the 16 lecture periods. The students gave the course a **course quality rating of 4.33/5** (department average 3.75/5) and gave me an **instructor effectiveness rating of 4.47/5** (department average 3.97/5).

Additional Teaching Related Experience. I have several other teaching-related experiences that I will briefly mention. During my PhD I independently developed and taught a 1-credit course (*eg.* one lecture each week) for the Hopkins Engineering Advanced Research Tutorial (HEART) program, which I taught in Fall 2018 and Fall 2019 (*Course reviews on pages 23-30*). As an undergraduate, I was a course assistant for both Automata and Computation Theory, taught by Rao Kosaraju, Introduction to Algorithms, taught by Michael Dinitz, and Teaching Assistant for Matthew Green's Practical Cryptographic Systems. Finally, I was the first student representative on the JHU CS department's curriculum committee, a position I held throughout my PhD.

Mentorship Philosophy and Experience. I believe learning, research, and personal growth flourishes when they happen within the context of a supportive and personal relationship. However, because the mentor-mentee relationship has inherent power dynamics, setting boundaries and having difficult conversations is necessary. I was lucky to have advisors who modeled this mentorship style by investing in me as an individual, supporting me both within the context of the lab and beyond. I know that this kind of support was vital to my success as a student, and it has appreciably shaped how I understand mentorship. I hope to emulate much of the template my advisors presented to me in my own mentorship.

Over the last few years, I have had several informal mentorship experiences. I have been mentoring the PhD student who served as my TA for CS558, focusing on growing both their teaching skills and research skills. They won a teaching award for their hard work and effort as a TA. Additionally, I have been mentoring an undergraduate student doing both an independent study of MPC techniques and a research project on institutional accountability in cryptographic protocol deployments. During my last several research projects, I have acted as a de-facto mentor, producing work published at top venues like ACM CCS, Eurocrypt, and PoPETs.

Conclusion. I have a record of excellence as a teacher. I design my courses to promote robust student engagement and help students build deep intuition. My teaching style is highly dynamic, adjusting to the needs of the students in the classroom. As a mentor, I build holistic relationships in order to support students as human beings. These qualities demonstrate that I will be a successful instructor and mentor as a tenure-track professor.

CS 558 (A1): Computer Networks Security

Spring 2022 | Gabriel Kaptchuk

59 Students Enrolled
30 Students Responded
50.85% Response Rate

Quantitative

	(1) Low	(2)	(3)	(4)	(5) High	N	DNA	SD	M
Relevance of assigned readings	3.33% (1)	0% (0)	10% (3)	20% (6)	66.67% (20)	30	0	0.92	4.47

	Easy	Moderately Easy	Neither Easy nor Difficult	Moderately Difficult	Difficult	N	DNA	SD	M
Difficulty of course	0% (0)	0% (0)	40% (12)	36.67% (11)	23.33% (7)	30	0	0.78	3.83

	Light	Moderately Light	Neither Light nor Heavy	Moderately Heavy	Heavy	N	DNA	SD	M
Workload in course	0% (0)	0% (0)	40% (12)	40% (12)	20% (6)	30	0	0.75	3.8

Course Evaluation	Poor	Fair	Good	Very Good	Excellent	N/A	N	DNA	SD	M
Overall rating of discussion instructor (if applicable)	3.33% (1)	0% (0)	6.67% (2)	13.33% (4)	56.67% (17)	20% (6)	30	0	0.96	4.5
Overall rating of lab instructor (if applicable)	0% (0)	6.9% (2)	20.69% (6)	20.69% (6)	44.83% (13)	6.9% (2)	29	0	0.99	4.11
Usefulness of assignments and papers	3.33% (1)	3.33% (1)	10% (3)	26.67% (8)	56.67% (17)	0% (0)	30	0	1	4.3
Overall course rating	6.67% (2)	3.33% (1)	0% (0)	33.33% (10)	56.67% (17)	0% (0)	30	0	1.1	4.3

Faculty Evaluation	Poor	Fair	Good	Very Good	Excellent	N	DNA	SD	M
Effectiveness in explaining concepts	0% (0)	3.33% (1)	13.33% (4)	10% (3)	73.33% (22)	30	0	0.85	4.53
Ability to stimulate interest in subject	0% (0)	3.33% (1)	6.67% (2)	13.33% (4)	76.67% (23)	30	0	0.75	4.63
Encouragement of class participation	0% (0)	10% (3)	3.33% (1)	26.67% (8)	60% (18)	30	0	0.95	4.37
Fairness in grading	6.67% (2)	6.67% (2)	10% (3)	30% (9)	46.67% (14)	30	0	1.2	4.03
Promptness in returning assignments	10% (3)	16.67% (5)	16.67% (5)	30% (9)	26.67% (8)	30	0	1.31	3.47
Quality of feedback to students	3.33% (1)	3.33% (1)	16.67% (5)	33.33% (10)	43.33% (13)	30	0	1.01	4.1
Availability outside of class	0% (0)	6.67% (2)	20% (6)	20% (6)	53.33% (16)	30	0	0.98	4.2
Overall rating of instructor	0% (0)	3.33% (1)	6.67% (2)	26.67% (8)	63.33% (19)	30	0	0.76	4.5

Qualitative

Strengths of the course and of the instructor: -

- Professor is a greatly knowledgeable person and excels at teaching. Every lecture I have attended felt very well put together and I always learned new concepts in every class. Somehow professor is able to explain things in a fairly easy understandable way and fit in a great breadth of information in one lecture. Every lecture was exciting and I always looked forward to going to class. The assignments, although tricky are great practice for the topics covered in class. I think I have learned a tremendous amount in this class and found it to be perhaps one of the best CS courses at BU. Similarly Professor Gabe is an excellent professor who truly has passion and cares for the subject.
- Explains difficult topics extremely well! I love that the course is structured so that we are always reviewing previous topics. I felt like I learned the material very well.
- Professor Kaptchuk is obviously very passionate about the topics of this course and is very, very knowledgeable, going the extra distance to show how the material of this course is relevant to our world today and how the world will shape the materials and discussions of this course in the future.
- Wide range of topics covering current threats in network security. Instructor is very knowledgeable and explains everything well.
- The teaching staff for this course clearly care about the subject matter and it showed in the prep done for lectures and the time taken to ensure that students were understanding. Gabe was super responsive and had office hours that were easy to make.
- I learned a lot! Despite how challenging the course is, Gabe creates a low pressure environment (as much as there can be at least) to try and learn. Gabe is honestly an excellent teacher who is very funny.
- Very interesting and detailed. Covered things I did not expect and had not thought of.
- Professor Gabe was a very engaging instructor and helped encourage all the students to not only learn the material but understand the importance as to why we should learn it.
- Professor's super cool and kind. Just that workload is a little too overwhelming
- Makes learning about network security very interesting. Not only enthusiastic about the subject but brings out enthusiasm from students about security.
- Detailed.
- Absolutely my favorite professor I have ever encountered at BU. Cares so much of students, uses present day examples to stress how important security is. HW's are super relevant and useful for security interviews (and studying for security / network + certification). Gabe if you're reading this, please keep up how you do things and don't change. The feedback, availability, the thoughtfulness and forgiveness of this class is freaking awesome. This is one the few classes where I can relate to what I'm currently doing at my job. Recording the class to review later is such a necessity that many professors have drifted away from but you continued it and helped so much with reviewing material.
- Very organized content, also a lot of fun Instructor welcomes all kinds of questions, talks fast, waste no time in class.
- Well defined. Not too much overwhelming. Loved the course. 10/10 recommend.
- Gabe is clearly an expert in his field and it comes across in interacting with him. He fomenta a very positive and stimulating environment in class. The course load is well spread out and content is balanced.
- Very good course, the content is useful and helpful. And it's a good guidance for students in future learning.
- Professor Kaptchuk is excellent at explaining subjects and I really enjoyed his course! He was also very helpful in office hours, is very approachable, and cares that students understand the material.
- Lectures were amazing - the explanations of protocols were clear and really helpful. The weekly reading and question system worked well (it helped force me to stay on top of the reading).
- Very good at getting people interested
- The course instructor and TF are both very friendly and approachable.
- Course was by far my favorite higher level CS course I've taken. Prof Kaptchuk was fantastic in his explanations of the topics and his ability to generate interest in the topics we've covered.

Weaknesses of the course and of the instructor: -

- N/A
- The weekly questions and readings are very much a chore and are assigned too frequently. It's not obvious to the student that reading the weekly readings is an efficient use of their time for learning the material and it could even be that it is not true that it is an efficient use of our time. There are no solutions for most big homeworks, so when we don't get a question right we still don't know what the right answer is and cannot learn for ourselves. There are numerous instances where points are taken off in homeworks for not doing something that wasn't asked for in the problem itself. It's happened on multiple homeworks multiple times. It's disgusting at this point. We are expected to read the grader's mind or get points taken off. The problem is so bad that we should get the grading rubric in full detail beforehand so that students can know what is expected of us and can be given a chance at answering the question in a way that will make the grader happy.
- A little fast, and the slides online are a little lacking
- Labs were a too repetitive. They covered the same material as lecture without any significant difference. I think it would have been more helpful to have the labs focus more on coding because the was a large delta between the material covered in class and the homework.
- I found that with most of the assignments, setting up the environments was more time consuming and more of a challenge than the actually programming which was a bit frustrating. It was also a little frustrating not being provided much guidance on getting started with assignments--I actually really enjoyed the Tor assignment because I felt like I was spending time on actual coding, not just setup. I also think in the future, there should only be weekly readings due on weeks when we do not have one of our larger assignments due. Also, maybe just one reading per week rather than multiple articles, because sometimes it felt more like busy work.
- The instructor speaks too fast, sometimes it's hard for me to catch up on class.
- Fix autograders haha
- Nothing. Honestly the best course taken at BU
- Very minor weakness, but maybe stress on using linux environments more. Linux commands are super useful in security and for interviews, linux knowledge is borderline a must.
- - sometimes grades are returned late - very strict grading, sometimes missing requirements not shown on original assignment sheet - a lot of assignments to complete and all are very difficult
- Too much workload, too much homework. Really difficult to finish the homework only by using the knowledge from class.
- Maybe it would be more reasonable to reduce some workload?
- Some of the homeworks where we were asked to write some code and submit screenshots were iffy. I had issues where my screenshots were not well explained and I felt unsure of what the grader was looking for before submitting to ensure that I could prove that my attack worked. Previous classes solved this problem very well using a capture the flag format, though I don't know if that would work in this situation.
- I felt a little lost at times, and I did not feel like I always got the help I wanted/needed. Part of it was my inexperience with networks, which made it feel like I was behind my peers. I struggled especially with the first few assignments. The other part was the few office hours available. It's a small class, so it's understandable there are no graders with office hours, but Palak only had a couple hours of OH which I couldn't attend due to a class. Moreover, Gabe's OH were after the due date so I felt like if you didn't get help on an assignment at the very beginning, you were kind off screwed if you had a bug halfway through the week. I always fixed it in the end, but it was deinifetly very stressful.
- Instructor is perfect; However difficulty & grade weights are so heavy at the last month.
- The frequency of busy-work is annoying given that this is a graduate class, and we were always busy with homework from the start of the class to the end. There is a lot of (at times) dense reading, so this course can be very time consuming.
- None.
- I wish the labs were better organized. The labs were quite poorly done and didn't really have much use for students. I went to most labs feeling as if I had wasted my time attending and to be honest if labs were dropped from the course it wouldn't have taken a hit on what I learned.

General Comments -

- I know CS558 is supposed to be a follow up to CS357 but a course that would be a follow up to this class, where we could focus on building a simple crypto application, would be quite a good sequence to take for students.
- This is probably my favorite class I've taken at BU. I enjoyed learning the material every day. I felt like the assignments were challenging but doable. Because of this class, I want to do security research!
- Signal protocol, a complicated protocol, might be better understood if we had a chance to implement a signal protocol simulator. The first month of the course spent so much time on programming with ARP/DNS; Might be more helpful for grad students if those were replaced with signal.
- Fun class, I liked it.
- I think the programming homework is very hard because in lecture we usually cover the high level concepts instead of the actual implementation. I understand by learning the high level we should be able to convert it to code, but it was still very challenging.
- Thank you Professor Gabe Sir for everything. This class was super interesting and I learned a lot.
- Too tired to take this course, the workload is too heavy.
- It's good course on network security just very strict grading and lots of difficult assignments
- GOAT!!!
- I like to ask instructor all kinds of question on weekly question. I can feel Gabe and Palak are eager to give us knowledge Sometimes more than we can consume but that's fine
- Very good course with a few things to improve.
- Overall, I really enjoyed the course! The workload was manageable and the professor was great! He did a great job engaging students in the course material and I learned so much!
- Thank you for a great semester! I learned a lot and had a great time.
- Perhaps some better slides, or notes?

DS 457 (A1): Law for Algorithms, DS 657 (A1): Law for Algorithms

Spring 2022 | Gabriel Kaptchuk

14		Students Enrolled
5		Students Responded
35.71%		Response Rate

Quantitative

<i>Please answer the following questions:</i>	1 - Poor	2 - Fair	3 - Good	4 - Very Good	5 - Excellent	N	DNA	SD	M
Relevance of assigned readings	0% (0)	0% (0)	20% (1)	20% (1)	60% (3)	5	0	0.8	4.4
Difficulty of course	0% (0)	20% (1)	40% (2)	40% (2)	0% (0)	5	0	0.75	3.2
Workload in course	0% (0)	20% (1)	60% (3)	0% (0)	20% (1)	5	0	0.98	3.2
Overall rating of discussion instructor (if applicable)	0% (0)	0% (0)	40% (2)	20% (1)	40% (2)	5	0	0.89	4
Overall rating of lecture instructor (if applicable)	0% (0)	0% (0)	20% (1)	20% (1)	60% (3)	5	0	0.8	4.4
Usefulness of assignments and papers	0% (0)	20% (1)	20% (1)	20% (1)	40% (2)	5	0	1.17	3.8
Overall course rating	0% (0)	20% (1)	0% (0)	20% (1)	60% (3)	5	0	1.17	4.2

<i>Please answer the following questions:</i>	1 - Poor	2 - Fair	3 - Good	4 - Very Good	5 - Excellent	N	DNA	SD	M
Effectiveness in explaining concepts	0% (0)	0% (0)	20% (1)	20% (1)	60% (3)	5	0	0.8	4.4
Ability to sustain interest in subject	0% (0)	0% (0)	0% (0)	40% (2)	60% (3)	5	0	0.49	4.6
Encouragement of class participation	0% (0)	0% (0)	40% (2)	20% (1)	40% (2)	5	0	0.89	4
Fairness in evaluating student work	0% (0)	0% (0)	40% (2)	40% (2)	20% (1)	5	0	0.75	3.8
Promptness in returning assignments	20% (1)	60% (3)	20% (1)	0% (0)	0% (0)	5	0	0.63	2
Quality of feedback to students	0% (0)	20% (1)	20% (1)	40% (2)	20% (1)	5	0	1.02	3.6
Availability outside of class	0% (0)	0% (0)	0% (0)	60% (3)	40% (2)	5	0	0.49	4.4
Overall rating of instructor	0% (0)	0% (0)	0% (0)	40% (2)	60% (3)	5	0	0.49	4.6

<i>Please answer the following questions:</i>	1 - Poor	2 - Fair	3 - Good	4 - Very Good	5 - Excellent	N	DNA	SD	M
Ability to increase student interest in subjects	0% (0)	20% (1)	40% (2)	0% (0)	40% (2)	5	0	1.2	3.6
Preparation and organization	0% (0)	20% (1)	40% (2)	0% (0)	40% (2)	5	0	1.2	3.6
Presentation of course topics	0% (0)	20% (1)	40% (2)	0% (0)	40% (2)	5	0	1.2	3.6
Ability to increase student understanding of challenging topics	0% (0)	20% (1)	40% (2)	0% (0)	40% (2)	5	0	1.2	3.6
Gave useful, detailed criticism of student work	0% (0)	20% (1)	40% (2)	0% (0)	40% (2)	5	0	1.2	3.6
Fairness in evaluating student work	0% (0)	20% (1)	40% (2)	0% (0)	40% (2)	5	0	1.2	3.6
Overall rating of TF	0% (0)	20% (1)	40% (2)	0% (0)	40% (2)	5	0	1.2	3.6

Qualitative

Please provide any additional comments about the TF: -
<ul style="list-style-type: none"> • Never interacted with them, didn't know we had one.

About the course: -

- I really enjoyed this course! I think it's very important, and more CS students definitely need to take it.
- Group work should not be majority of coursework because performance in class is based on performance of others. Syllabus should be more clear of what is expected of students (how are reading responses calculated? how is participation tracked?). Professors should be more open about what is expected in papers, since feedback on previous assignments does not really translate clearly into expectations on next assignments having to do with different topics.

And assignments should be returned sooner. Overall was confused what was expected of students. Very interesting subject though
- I was incredibly stimulated intellectually throughout the course. I really enjoyed the law perspective - I think classes like this are propping up elsewhere too but to be able to discuss it with law students and have Andy clarify the law concepts was amazing - i wasn't particularly engaged in the cs+law intersection but now I am! I will be contemplating on the things I learnt in this class in the coming months.
- One of my favorite courses I've taken at BU

About the instructor: -

- I thought the instruction was amazing!! Thank you so much.

General Comments: -

- The only downside I experienced in the class was that some of the other CS students were not motivated to learn and I think this really dampened my experience. They would treat the assignments as something to get out of the way of, instead of engaging and doing the readings. Fair I guess, everyone takes classes and loses interest, and it seems a lot of them were seniors with senioritis. I wish there were more grad students in the class.
- It was a very interesting course -- definitely one of my favorites. The intersection of law and computer science was really interesting to delve into, and I think the readings had a good balance between topics that the law students understood and the CS students understood. Readings on the specific intersection was fun as well. The assignments were a little frustrating in the beginning, since it felt like there was a block between getting the two groups of students to actually collaborate, as opposed to listing out opinions on both sides and settling on one. This got better throughout the course, but I think the in-class activities helped both parties develop skills to talk to the other.
- Thank you guys for the great semester.

CS 558 (A1): Computer Networks Security

Spring21 | Gabriel Kaptchuk

50 | Students Enrolled
25 | Students Responded
50% | Response Rate

Quantitative

	(1) Low	(2)	(3)	(4)	(5) High	N	DNA	SD	M	
Relevance of assigned readings	0% (0)	0% (0)	4% (1)	8% (2)	88% (22)	25	0	0.46	4.84	
	Easy	Moderately Easy	Neither Easy nor Difficult	Moderately Difficult	Difficult	N	DNA	SD	M	
Difficulty of course	4% (1)	4% (1)	28% (7)	64% (16)	0% (0)	25	0	0.75	3.52	
	Light	Moderately Light	Neither Light nor Heavy	Moderately Heavy	Heavy	N	DNA	SD	M	
Workload in course	4% (1)	4% (1)	60% (15)	32% (8)	0% (0)	25	0	0.69	3.2	
<i>Course Evaluation</i>	Poor	Fair	Good	Very Good	Excellent	N/A	N	DNA	SD	M
Overall rating of discussion instructor (if applicable)	4.17% (1)	0% (0)	0% (0)	8.33% (2)	87.5% (21)	0% (0)	24	0	0.83	4.75
Overall rating of lab instructor (if applicable)	4.17% (1)	4.17% (1)	8.33% (2)	0% (0)	62.5% (15)	20.83% (5)	24	0	1.18	4.42
Usefulness of assignments and papers	0% (0)	0% (0)	0% (0)	32% (8)	68% (17)	0% (0)	25	0	0.47	4.68
Overall course rating	0% (0)	0% (0)	0% (0)	16% (4)	84% (21)	0% (0)	25	0	0.37	4.84
<i>Faculty Evaluation</i>	Poor	Fair	Good	Very Good	Excellent	N/A	N	DNA	SD	M
Effectiveness in explaining concepts	0% (0)	0% (0)	0% (0)	24% (6)	76% (19)	0% (0)	25	0	0.43	4.76
Ability to stimulate interest in subject	0% (0)	0% (0)	0% (0)	16% (4)	84% (21)	0% (0)	25	0	0.37	4.84
Encouragement of class participation	0% (0)	0% (0)	8% (2)	32% (8)	60% (15)	0% (0)	25	0	0.64	4.52
Fairness in grading	0% (0)	0% (0)	20% (5)	24% (6)	56% (14)	0% (0)	25	0	0.79	4.36
Promptness in returning assignments	16% (4)	0% (0)	36% (9)	20% (5)	28% (7)	0% (0)	25	0	1.33	3.44
Quality of feedback to students	0% (0)	4% (1)	12% (3)	20% (5)	64% (16)	0% (0)	25	0	0.85	4.44
Availability outside of class	0% (0)	0% (0)	16% (4)	20% (5)	64% (16)	0% (0)	25	0	0.75	4.48
Overall rating of instructor	0% (0)	0% (0)	4% (1)	4% (1)	92% (23)	0% (0)	25	0	0.43	4.88

Qualitative

Strengths of the course and of the instructor: -

- This instructor was very willing to take the time to make sure everyone was comfortable with the topics. He modified the schedule to best help everyone learn
- I really liked this class, it was extremely informative, modern, and honestly just fascinating. The Professor was great about explaining the concepts and then reviewing them, and was very responsive to student concerns/questions. This class is a really great class for understanding the current issues ongoing with networks and crypto.
- Professor Kaptchuk was a great professor throughout this entire semester. He was able to explain concepts thoroughly and was always open to answering questions. He made sure to go through confusing/difficult questions multiple times, as well as spending time to go over things that most students expressed confusion in. He was an engaging professor throughout the course, which made going to the class enjoyable. I genuinely enjoyed the class and would recommend it to others.
- Gabe is hands down one of the best instructors I have had. He was so helpful not only with course material but also as a mentor for internships, career, etc. I really enjoyed this class and his passionate nature about what he is teaching makes the class really valuable.
- - Always willing to help students and foster their interest in cryptography - Designs lectures in relevant, interesting manner - Went the extra mile to be readily available to help students outside of class by holding office hours at both morning and night for those in different timezones - Patient while explaining concepts - Always open to (and genuinely cares about) student feedback - Gives engaging and meaningful assignments that foster students' understanding in the material - Encourages creative and open-ended thinking when solving problems - Holds generous amounts of office hours and review sessions for students who have trouble understanding the material
- very real and relatable while teaching the course material in an interesting way while being very accommodating to students
- Has a good understanding, or an intuition of what things students may be confused about. Is very good at capturing student attentions and drawing interests to the topic.
- Although the problem sets were long a lot of the time, I felt like I gained more practical knowledge about how things work. Lectures were explained really well.
- Gabe is really interesting, knowledgeable, and interesting. I mean, what more would you want in an instructor? Class ran smoothly, he was always very prepared, and he took the time to go over things whenever people asked. He also did a great job with the learn from anywhere situation, certainly much better than many professors.
- Always takes students' feedback into consideration, great at stimulating interest in subject, provides lots of resources to help students understand the material
- Overall I found the structure and content of the course engaging throughout the whole semester. I found the lectures really interesting even in the online format and I feel like everything was well-explained.
- Logical material ordering and presentation. Diagrams drawn during class and saved as notes are helpful. Interesting assignments and readings.
- really good instructor, he likes to give homework dl extensions which is very helpful.
- Professor Kaptchuk is a passionate professor who pushes us to think not only how to solve problems, but also why we should even care about this subject.
- Gabe understands material insanely well and has a great personality
- Gabe is an incredible lecturer and great at explaining the large variety of concepts that we covered in this course. Even though we covered a lot of different things, I never felt overwhelmed by the number of new topics because they flowed well into each other and were given a lot of context that helped me understand them. Gabe is clearly very passionate about what he's teaching and it's incredibly infectious. While we covered a lot of things at a very high level, I was very happy to get hands on experience with most of the things we discussed as well. A lot of courses at BU suffer from not providing enough opportunity for application of what we learned, but the assignments in this (especially later in the semester) class helped not only to solidify what I learned in lecture, but also gave me a solid idea of how to apply the things I learned going forward. Gabe is great at taking feedback from his students and was not afraid to admit shortcomings and improve the course when needed. The first few assignments were often hard to follow when it came to programming portions and felt more like fights with libraries we were supposed to be working with than using what we learned in class. However after students gave their feedback, assignments later in the course were improved drastically and really helped to make 558 as great of an experience as it was.
- Very interesting topics with great explanations and visual aids. Gabe created a course with a healthy mix of technical details and the real-world effects of those details. Ethics are a huge concept in crypto/cybersecurity and I was glad to see Gabe make the effort to incorporate ethics and even some political concepts into the lectures. I also thought the course flowed very well from topic to topic. It's possible we spent a little too long on certain topics but it's hard to make that a bad thing, especially when Gabe was actively re-evaluating the amount of material we'd be able to get through and be expected to know by the end.
- Explained topics very well and adapted to a difficult timeframe. Always supplied ample time for people to understand the topics rather than forcing us to finish things based on estimates.
- Professor Kaptchuk is one of my favorite professors I have had. His lectures are great and he goes into detail explaining the various protocols and details diagrammatically, while also adding text that describes it. It's great for taking notes and following along, and his color coded slides are awesome for being able to parse through. He touches on current practices and current research and links it to what we learn in class. This is one of my favorite classes I've taken at BU and I have learned so much. I usually hate assignments and homeworks and find them to be busywork just distracting me from studying the material, but professor has found a great balance between high workload and meaningful assignments that reinforce what's taught in class. The HWs were a great balance between theory and coding. He clearly wants everyone to learn and understand the material, and be awarded for doing so. I would find it hard to do poorly in this class all said and done. He reviews previous weeks lecture material in a clear and concise way that helps recall some details. He is casual and direct and knows his stuff, and is able to effectively explain concepts. He has made good use of the remote learning environment. I would recommend all CS majors take this class as it covers so many important concepts and is a great review of networking and understanding how security over the internet works, while covering extremely relevant concepts like encrypted messaging. The flow of the class is great.
- Very understanding professor, also very considerate of us students and what we thought -- I really appreciated how he tailored the class to our benefit and actively sought our feedback weekly

Weaknesses of the course and of the instructor: -
General Comments -

- This was an extremely interesting course, and I really enjoyed the topics presented, especially the relevant real world example
- I really liked this class, and the Professor was great!
- This was one of the most enjoyable courses I have taken at BU. Cryptography/Network security is a challenging subject, but Dr. Kaptchuk made it meaningful and engaging. I learned a lot from this class and it made me think of network security as a very interesting potential career path. I would like to thank Dr. Kaptchuk for always being patient with his students and going the extra mile to ensure everyone understands the material.
- 10/10 course would definitely recommend to other CS students to take
- Love the class. Definitely one of the funnest I've had at BU. Love how a lot of the topics are introduced (story, background, reasoning). Class focuses a lot more on the "why", instead of just "how" like many other classes.
- All in all a great course and I'm really glad I took it. Gabe is really interesting and funny so I'm glad I took a class with him. Now, this is for BU, not Gabe specifically: I think the security courses should have more well defined boundaries. Reyzin's crypto course is incredible so it should stay as is. Crypto 2 was also pretty well done (at least in scope). Varia taught applied crypto really well but honestly it was like half Reyzin's class and half Gabe's class. I don't know, it just feels like these four 578 classes had too much overlap. Just my 2 cents.
- This was definitely one of the classes I've enjoyed the most and got me thinking the most in my undergrad years at BU. I think it was especially engaging since the material we were learning was so applicable to the current state of the world - something I feel like very few other CS courses touch on.
- This class was awesome! One of my favorite CS classes at BU. I learned so much and had a lot of fun with the problem sets.
- Overall enjoyable course.
- Really good instructor, He is awesome!
- The best course in my 4 years of college.
- I sat in on the first few weeks of 558 a couple semesters ago. Professor Goldberg is an amazing lecturer and her design of the course was really exciting and interesting to me. Obviously she left very large shoes to fill, but I think Professor Kaptchuk really rose to the occasion. At first I was a little disappointed when I heard the course was going to be structured differently than when Prof. Goldberg was teaching it, but I can gladly say my disappointment was misplaced. From beginning to end this course and its instructor exceeded expectations
- Great class with a lot of useful content.
- General comments to the department - I may be graduating, but I sincerely hope that we have all learned from the remote learning experience and can translate the positives back into our in-person environment. Particularly, having lectures recorded / notes published is so helpful because during lecture you can focus on listening and absorbing the material because you know that you can go over the video again to take notes or delve deeper into a topic. Remote office hours should also be here to stay since they allow for late night hours (in addition to regular in person ones of course). Also, asynchronous learning is a brilliant strategy and should be looked into with an open mind.

JHU - Krieger School of Arts & Sciences / Whiting School of Engineering 2020 Spring

Course: EN.601.414.01.SP20 : Computer Networks

Instructor: Gabriel Kaptchuk

1 - The overall quality of this course is:					
Response Option	Weight	Frequency	Percentage	Percent Responses	Mean
Poor	(1)	0	0.00%		4.56
Weak	(2)	0	0.00%		
Satisfactory	(3)	2	4.00%		
Good	(4)	18	36.00%		
Excellent	(5)	30	60.00%		
N/A	(0)	0	0.00%		
				0 25 50 75 100	Question
Response Rate		Mean	STD	Median	
50/53 (94.34%)		4.56	0.58	5.00	

2 - The instructor's teaching effectiveness is:					
Response Option	Weight	Frequency	Percentage	Percent Responses	Mean
Poor	(1)	0	0.00%		4.59
Weak	(2)	0	0.00%		
Satisfactory	(3)	2	4.00%		
Good	(4)	16	32.00%		
Excellent	(5)	31	62.00%		
N/A	(0)	1	2.00%		
				0 25 50 75 100	Question
Response Rate		Mean	STD	Median	
50/53 (94.34%)		4.59	0.57	5.00	

3 - The intellectual challenge of this course is:					
Response Option	Weight	Frequency	Percentage	Percent Responses	Mean
Poor	(1)	0	0.00%		4.42
Weak	(2)	0	0.00%		
Satisfactory	(3)	7	14.00%		
Good	(4)	15	30.00%		
Excellent	(5)	28	56.00%		
N/A	(0)	0	0.00%		
				0 25 50 75 100	Question
Response Rate		Mean	STD	Median	
50/53 (94.34%)		4.42	0.73	5.00	

**JHU - Krieger School of Arts & Sciences / Whiting School of Engineering
2020 Spring**

Course: EN.601.414.01.SP20 : Computer Networks

Instructor: Gabriel Kaptchuk

4 - The teaching assistant for this course is:					
Response Option	Weight	Frequency	Percentage	Percent Responses	Mean
Poor	(1)	1	2.00%		4.24
Weak	(2)	0	0.00%		
Satisfactory	(3)	8	16.00%		
Good	(4)	9	18.00%		
Excellent	(5)	20	40.00%		
N/A	(0)	12	24.00%		
				0 25 50 75 100	Question
Response Rate	Mean	STD	Median		
50/53 (94.34%)	4.24	0.97	5.00		

5 - Please enter the name of the TA you evaluated in question 4:
- Zhuolong Yu
- Christopher
- Yi Hong
- Yi Hong
- Gabe
- Gabe
- All of them
- N/A
- Zhuolong Yu
- Yi Hong
- Yi Hong, Zhuolong Yu
- Zhuolong Yu
- Yi Hong
- Yi
- yilong

6 - Feedback on my work for this course is useful:					
Response Option	Weight	Frequency	Percentage	Percent Responses	Mean
Disagree strongly	(1)	0	0.00%		4.04
Disagree somewhat	(2)	3	6.00%		
Neither agree nor disagree	(3)	8	16.00%		
Agree somewhat	(4)	23	46.00%		
Agree strongly	(5)	16	32.00%		
N/A	(0)	0	0.00%		
				0 25 50 75 100	Question
Response Rate	Mean	STD	Median		
50/53 (94.34%)	4.04	0.86	4.00		

**JHU - Krieger School of Arts & Sciences / Whiting School of Engineering
2020 Spring**

Course: EN.601.414.01.SP20 : Computer Networks

Instructor: Gabriel Kaptchuk

7 - Compared to other Hopkins courses at this level, the workload for this course is:					
Response Option	Weight	Frequency	Percentage	Percent Responses	Mean
Much lighter	(1)	1	2.00%		3.86
Somewhat lighter	(2)	0	0.00%		
Typical	(3)	12	24.00%		
Somewhat heavier	(4)	28	56.00%		
Much heavier	(5)	8	16.00%		
N/A	(0)	1	2.00%		
				0 25 50 75 100	Question
Response Rate	Mean	STD	Median		
50/53 (94.34%)	3.86	0.76	4.00		

**JHU - Krieger School of Arts & Sciences / Whiting School of Engineering
2020 Spring**

Course: EN.601.414.02.SP20 : Computer Networks

Instructor: Gabriel Kaptchuk

1 - The overall quality of this course is:					
Response Option	Weight	Frequency	Percentage	Percent Responses	Mean
Poor	(1)	1	1.89%		4.38
Weak	(2)	0	0.00%		
Satisfactory	(3)	6	11.32%		
Good	(4)	16	30.19%		
Excellent	(5)	29	54.72%		
N/A	(0)	1	1.89%		
0 25 50 75 100					Question
Response Rate	Mean	STD	Median		
53/56 (94.64%)	4.38	0.84	5.00		

2 - The instructor's teaching effectiveness is:					
Response Option	Weight	Frequency	Percentage	Percent Responses	Mean
Poor	(1)	0	0.00%		4.47
Weak	(2)	0	0.00%		
Satisfactory	(3)	4	7.69%		
Good	(4)	19	36.54%		
Excellent	(5)	28	53.85%		
N/A	(0)	1	1.92%		
0 25 50 75 100					Question
Response Rate	Mean	STD	Median		
52/56 (92.86%)	4.47	0.64	5.00		

3 - The intellectual challenge of this course is:					
Response Option	Weight	Frequency	Percentage	Percent Responses	Mean
Poor	(1)	1	1.92%		4.21
Weak	(2)	0	0.00%		
Satisfactory	(3)	7	13.46%		
Good	(4)	23	44.23%		
Excellent	(5)	21	40.38%		
N/A	(0)	0	0.00%		
0 25 50 75 100					Question
Response Rate	Mean	STD	Median		
52/56 (92.86%)	4.21	0.82	4.00		

**JHU - Krieger School of Arts & Sciences / Whiting School of Engineering
2020 Spring**

Course: EN.601.414.02.SP20 : Computer Networks

Instructor: Gabriel Kaptchuk

4 - The teaching assistant for this course is:

Response Option	Weight	Frequency	Percentage	Percent Responses	Mean
Poor	(1)	0	0.00%		4.11
Weak	(2)	4	7.69%		
Satisfactory	(3)	6	11.54%		
Good	(4)	7	13.46%		
Excellent	(5)	18	34.62%		
N/A	(0)	17	32.69%		
				0 25 50 75 100	Question
Response Rate		Mean	STD	Median	
52/56 (92.86%)		4.11	1.08	5.00	

5 - Please enter the name of the TA you evaluated in question 4:

- NA
- Yi Hong
- Laurent Park
- Yi Hong
- All
- Yi Hong
- Yi Hong, Saianeesh Haridas, etc.
- Zhuolong Yu
- Zhuolong Yu
- Zhuolong Yu
- Yi Hong
- Zhuolong Yu
- zhuolong
- Christopher Xu
- Zhuolong
- Stephan Kemper
- Zhuolong Yu

**JHU - Krieger School of Arts & Sciences / Whiting School of Engineering
2020 Spring**

Course: EN.601.414.02.SP20 : Computer Networks

Instructor: Gabriel Kaptchuk

6 - Feedback on my work for this course is useful:						
Response Option	Weight	Frequency	Percentage	Percent Responses	Mean	
Disagree strongly	(1)	1	1.89%		3.87	
Disagree somewhat	(2)	5	9.43%			
Neither agree nor disagree	(3)	12	22.64%			
Agree somewhat	(4)	17	32.08%			
Agree strongly	(5)	18	33.96%			
N/A	(0)	0	0.00%			
				0 25 50 75 100	Question	
Response Rate		Mean	STD	Median		
53/56 (94.64%)		3.87	1.06	4.00		

7 - Compared to other Hopkins courses at this level, the workload for this course is:						
Response Option	Weight	Frequency	Percentage	Percent Responses	Mean	
Much lighter	(1)	0	0.00%		3.88	
Somewhat lighter	(2)	3	5.77%			
Typical	(3)	15	28.85%			
Somewhat heavier	(4)	19	36.54%			
Much heavier	(5)	15	28.85%			
N/A	(0)	0	0.00%			
				0 25 50 75 100	Question	
Response Rate		Mean	STD	Median		
52/56 (92.86%)		3.88	0.90	4.00		

JHU - Krieger School of Arts & Sciences / Whiting School of Engineering
ASEN.2019.Summer II

Course: EN.601.226.21.SU19: Data Structures

Instructor: Gabriel Kaptchuk * ,Joanne Selinski

Response Rate: 15/19 (78.95 %)

1 - The overall quality of this course is:					
Response Option	Weight	Frequency	Percent	Percent Responses	Means
Poor	(1)	0	0.00%		4.33
Weak	(2)	0	0.00%		
Satisfactory	(3)	2	13.33%	█	
Good	(4)	6	40.00%	███	
Excellent	(5)	7	46.67%	█████	
N/A	(0)	0	0.00%		
				0 25 50 100	Question
Response Rate			Mean	STD	Median
15/19 (78.95%)			4.33	0.72	4.00

2 - The instructor's teaching effectiveness is:					
Gabriel Kaptchuk					
Response Option	Weight	Frequency	Percent	Percent Responses	Means
Poor	(1)	0	0.00%		4.47
Weak	(2)	0	0.00%		
Satisfactory	(3)	3	20.00%	██	
Good	(4)	2	13.33%	█	
Excellent	(5)	10	66.67%	███████	
N/A	(0)	0	0.00%		
				0 25 50 100	Question
Response Rate			Mean	STD	Median
15/19 (78.95%)			4.47	0.83	5.00

3 - The intellectual challenge of this course is:					
Response Option	Weight	Frequency	Percent	Percent Responses	Means
Poor	(1)	0	0.00%		4.53
Weak	(2)	0	0.00%		
Satisfactory	(3)	1	6.67%	█	
Good	(4)	5	33.33%	████	
Excellent	(5)	9	60.00%	████████	
N/A	(0)	0	0.00%		
				0 25 50 100	Question
Response Rate			Mean	STD	Median
15/19 (78.95%)			4.53	0.64	5.00

4 - The teaching assistant for this course is:					
Response Option	Weight	Frequency	Percent	Percent Responses	Means
Poor	(1)	0	0.00%		4.25
Weak	(2)	0	0.00%		
Satisfactory	(3)	2	13.33%	█	
Good	(4)	5	33.33%	████	
Excellent	(5)	5	33.33%	████	
N/A	(0)	3	20.00%	███	
				0 25 50 100	Question
Response Rate			Mean	STD	Median
15/19 (78.95%)			4.25	0.75	4.00

JHU - Krieger School of Arts & Sciences / Whiting School of Engineering
ASEN.2019.Summer II

Course: EN.601.226.21.SU19: Data Structures

Instructor: Gabriel Kaptchuk * ,Joanne Selinski

Response Rate: 15/19 (78.95 %)

5 - Please enter the name of the TA you evaluated in question 4:

Response Rate	10/19 (52.63%)
<ul style="list-style-type: none"> • Erin Chen • Erin Chen • Erin Chen • Erin • Erin Chen • Erin Chen • Eduardo • Erin Chen • Erin Chen • Erin Chen 	

6 - Feedback on my work for this course is useful:

Response Option	Weight	Frequency	Percent	Percent Responses	Means	
Disagree strongly	(1)	0	0.00%			
Disagree somewhat	(2)	1	6.67%	█		
Neither agree nor disagree	(3)	0	0.00%			
Agree somewhat	(4)	8	53.33%	█		
Agree strongly	(5)	6	40.00%	█		
N/A	(0)	0	0.00%			
				0 25 50 100	Question	
Response Rate				Mean	STD	Median
15/19 (78.95%)				4.27	0.80	4.00

7 - Compared to other Hopkins courses at this level, the workload for this course is:

Response Option	Weight	Frequency	Percent	Percent Responses	Means	
Much lighter	(1)	0	0.00%			
Somewhat lighter	(2)	0	0.00%			
Typical	(3)	7	46.67%	█		
Somewhat heavier	(4)	6	40.00%	█		
Much heavier	(5)	2	13.33%	█		
N/A	(0)	0	0.00%			
				0 25 50 100	Question	
Response Rate				Mean	STD	Median
15/19 (78.95%)				3.67	0.72	4.00

JHU - Krieger School of Arts & Sciences / Whiting School of Engineering

ASEN.2019.Summer II

Course: EN.601.226.21.SU19: Data Structures

Instructor: Gabriel Kaptchuk * ,Joanne Selinski

Response Rate: 15/19 (78.95 %)

8 - What are the best aspects of this course?

Response Rate	13/19 (68.42%)
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- assignments closely related with lectures
- The classes are interesting and engaging.
- If you've taken a CS course previously, chances are a lot of the content is review. With the structure of the summer class, the instructors can move quickly through review content and spend more time on harder content since each class block is longer.
- We implement data structures before being able to use them so we know how they work internally.
- Lots of material that was super interesting
- Very interesting, learn a ton.
- The course is organized well. Homework is challenging but worth to try.
- The in class examples are really helpful to learn how each data structure works.
- The concepts and the assignments
- The coding assignments
- We learned real-world applicable strategies and structures.
- All the material was very comprehensive and useful. I can seem myself using all the information I learned in the future.
- Super useful and interesting material

9 - What are the worst aspects of this course?

Response Rate	10/19 (52.63%)
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- Some concepts are not explained very clearly
- The timing is a bit rushed with the assignments and topics, but that's just the nature of any summer course.
- Time management is difficult since it's 3 hours in the afternoon, I had to drop research commitments during the days we had class because it was impractical going back and forth between the locations. The class moves too fast. I found myself falling behind when trying to do the homeworks because I couldn't catch everything that was being presented during class. Some days it's almost a concept every 10 minutes, for 3 hours, which is a lot of information to absorb (especially small detailed differences between data structure types).
- Sometimes confusing concepts.
- I understand it was summer but sometimes the workload was a little heavy as we did not have a lot of time to work on our homework.
- The exams
- n/a
- Nothing
- Checkstyle. I am just not a big fan of checkstyle but I understand it's usefulness.
- I thought it was manageable

10 - What would most improve this class?

Response Rate	8/19 (42.11%)
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- Pace more slowly on difficult concepts
- More practice problems would have been helpful
- Layout can get confusing, I would do graphs after trees and before hash maps.
- Maybe do a more creative assignment
- n/a
- Nothing
- Nothing
- I think the class moved too slowly at the beginning of the semester and too fast at the end. Would be good to try to compress more material per day in the first two weeks so that more time could be made for graphs and hash tables. Trees discussion was at a good pace.

JHU - Krieger School of Arts & Sciences / Whiting School of Engineering

ASEN.2019.Summer II

Course: EN.601.226.21.SU19: Data Structures

Instructor: Gabriel Kaptchuk * ,Joanne Selinski

Response Rate: 15/19 (78.95 %)

11 - What should prospective students know about this course before enrolling? (You may comment on any aspect of this course such as assumed background, readings, grading systems, and so on.)

Response Rate 12/19 (63.16%)

- Better take intermediate programming first
- The course is very fast paced
- Be prepared for the super fast pace in this summer course.
- Very fast paced, and will pick up considerably towards the end.
- It's a lot of work and knowing java and/or coding is super important
- Be ready to do a lot of programming
- Be familiar with Java basic concepts.
- Summer data structures is pretty chill.
- Learn mainly through doing assignments
- Nothing
- Nothing
- Skimming the readings before class was useful.

12 - Why did you take a course this summer?

Response Rate 12/19 (63.16%)

- Because the fall data structure course is in conflict with my other course
- Major requirement
- Need to fulfill the prerequisites of classes.
- I was interested in computer science.
- Easier than taking it during the year where it affects my other classes
- Couldn't get into it over the semester.
- In order to get ahead.
- To fulfill CS requirements
- I couldn't take it in the fall
- To take a class that had a scheduling conflict with another class i want to take.
- To complete some credits and stay productive over the summer.
- Lack of space within semester schedule

13 - Regarding your decision process to take a summer class, what were some of your obstacles/concerns?

Response Rate 10/19 (52.63%)

- Teaching quality, finding housing
- Some classes I am taking next semester have a new Data Structures requirement, although it applied for the semester afterwards so we were fine in registration. However, the curriculum would likely focus on data structures so I figured I would need the information for those classes. It also couldn't fit in my schedule (not enough credit hours) next semester, and I was already overloading, so I had to take it during the summer so I could take upper level CS courses in spring semester.
- The class would be too time consuming
- With so much material, I wish the schedule could have been a little bit more flexible
- Very time intensive.
- The length of the class (3 hours a day)
- The cost of the course in dollars
- Housing and food
- Time management.
- opportunity cost

JHU - Krieger School of Arts & Sciences / Whiting School of Engineering
ASEN.2019.Summer II

Course: EN.601.226.21.SU19: Data Structures

Instructor: Gabriel Kaptchuk * ,Joanne Selinski

Response Rate: 15/19 (78.95 %)

14 - What other courses not currently offered during the summer would you like to see offered?	
Response Rate	6/19 (31.58%)
<ul style="list-style-type: none">• Introduction to Probability• Economics and ECE classes• N/A• none• Nothing• Automata; Intro to Probability and Intro to Statistics	

**JHU - Krieger School of Arts & Sciences / Whiting School of Engineering
2019 Fall**

Course: EN.500.111.33.FA19 : Hopkins Engineering Applications & Research Tutorials

Instructor: Gabriel Kaptchuk

1 - The overall quality of this course is:					
Response Option	Weight	Frequency	Percentage	Percent Responses	Mean
Poor	(1)	0	0.00%		4.75
Weak	(2)	0	0.00%		
Satisfactory	(3)	0	0.00%		
Good	(4)	2	25.00%		
Excellent	(5)	6	75.00%		
N/A	(0)	0	0.00%		
0 25 50 75 100					Question
Response Rate		Mean	STD	Median	
8/9 (88.89%)		4.75	0.46	5.00	

2 - The instructor's teaching effectiveness is:					
Response Option	Weight	Frequency	Percentage	Percent Responses	Mean
Poor	(1)	0	0.00%		4.78
Weak	(2)	0	0.00%		
Satisfactory	(3)	0	0.00%		
Good	(4)	2	22.22%		
Excellent	(5)	7	77.78%		
N/A	(0)	0	0.00%		
0 25 50 75 100					Question
Response Rate		Mean	STD	Median	
9/9 (100%)		4.78	0.44	5.00	

3 - The intellectual challenge of this course is:					
Response Option	Weight	Frequency	Percentage	Percent Responses	Mean
Poor	(1)	0	0.00%		4.33
Weak	(2)	0	0.00%		
Satisfactory	(3)	1	11.11%		
Good	(4)	4	44.44%		
Excellent	(5)	4	44.44%		
N/A	(0)	0	0.00%		
0 25 50 75 100					Question
Response Rate		Mean	STD	Median	
9/9 (100%)		4.33	0.71	4.00	

**JHU - Krieger School of Arts & Sciences / Whiting School of Engineering
2019 Fall**

Course: EN.500.111.33.FA19 : Hopkins Engineering Applications & Research Tutorials

Instructor: Gabriel Kaptchuk

4 - The teaching assistant for this course is:													
Response Option	Weight	Frequency	Percentage	Percent Responses	Mean								
Poor	(1)	0	0.00%		4.00								
Weak	(2)	0	0.00%										
Satisfactory	(3)	0	0.00%										
Good	(4)	1	11.11%										
Excellent	(5)	0	0.00%										
N/A	(0)	8	88.89%										
<table border="1"> <thead> <tr> <th>Response Rate</th> <th>Mean</th> <th>STD</th> <th>Median</th> </tr> </thead> <tbody> <tr> <td>9/9 (100%)</td> <td>4.00</td> <td>0.00</td> <td>4.00</td> </tr> </tbody> </table>					Response Rate	Mean	STD	Median	9/9 (100%)	4.00	0.00	4.00	Question
Response Rate	Mean	STD	Median										
9/9 (100%)	4.00	0.00	4.00										

5 - Please enter the name of the TA you evaluated in question 4:
- N/A

6 - Feedback on my work for this course is useful:													
Response Option	Weight	Frequency	Percentage	Percent Responses	Mean								
Disagree strongly	(1)	0	0.00%		4.17								
Disagree somewhat	(2)	0	0.00%										
Neither agree nor disagree	(3)	1	11.11%										
Agree somewhat	(4)	3	33.33%										
Agree strongly	(5)	2	22.22%										
N/A	(0)	3	33.33%										
<table border="1"> <thead> <tr> <th>Response Rate</th> <th>Mean</th> <th>STD</th> <th>Median</th> </tr> </thead> <tbody> <tr> <td>9/9 (100%)</td> <td>4.17</td> <td>0.75</td> <td>4.00</td> </tr> </tbody> </table>					Response Rate	Mean	STD	Median	9/9 (100%)	4.17	0.75	4.00	Question
Response Rate	Mean	STD	Median										
9/9 (100%)	4.17	0.75	4.00										

7 - Compared to other Hopkins courses at this level, the workload for this course is:													
Response Option	Weight	Frequency	Percentage	Percent Responses	Mean								
Much lighter	(1)	4	44.44%		1.78								
Somewhat lighter	(2)	3	33.33%										
Typical	(3)	2	22.22%										
Somewhat heavier	(4)	0	0.00%										
Much heavier	(5)	0	0.00%										
N/A	(0)	0	0.00%										
<table border="1"> <thead> <tr> <th>Response Rate</th> <th>Mean</th> <th>STD</th> <th>Median</th> </tr> </thead> <tbody> <tr> <td>9/9 (100%)</td> <td>1.78</td> <td>0.83</td> <td>2.00</td> </tr> </tbody> </table>					Response Rate	Mean	STD	Median	9/9 (100%)	1.78	0.83	2.00	Question
Response Rate	Mean	STD	Median										
9/9 (100%)	1.78	0.83	2.00										

JHU - Krieger School of Arts & Sciences / Whiting School of Engineering
ASEN.2018.Fall

Course: EN.500.111.37.FA18: Hopkins Engineering Applications & Research Tutorials
Instructor: Gabriel Kaptchuk *
Response Rate: 10/10 (100.00 %)

1 - The overall quality of this course is:													
Response Option					Weight	Frequency	Percent	Percent Responses	Means				
Poor	(1)	0	0.00%					4.70					
Weak	(2)	0	0.00%					4.06					
Satisfactory	(3)	0	0.00%					3.75					
Good	(4)	3	30.00%	■									
Excellent	(5)	7	70.00%	■									
N/A	(0)	0	0.00%										
					0	25	50	100	Question	School Level	Department Level		
Response Rate	Mean	STD	Median	School Level	Mean	STD	Median	Department Level	Mean	STD	Median		
10/10 (100.00%)	4.70	0.48	5.00	10082	4.06	1.01	4.00	584	3.75	1.17	4.00		

2 - The instructor's teaching effectiveness is:													
Gabriel Kaptchuk													
Response Option					Weight	Frequency	Percent	Percent Responses	Means				
Poor	(1)	0	0.00%					5.00					
Weak	(2)	0	0.00%					4.13					
Satisfactory	(3)	0	0.00%					3.97					
Good	(4)	0	0.00%										
Excellent	(5)	10	100.00%	■									
N/A	(0)	0	0.00%										
					0	25	50	100	Question	School Level	Department Level		
Response Rate	Mean	STD	Median	School Level	Mean	STD	Median	Department Level	Mean	STD	Median		
10/10 (100.00%)	5.00	0.00	5.00	10702	4.13	1.03	4.00	584	3.97	1.04	4.00		

3 - The intellectual challenge of this course is:													
Response Option					Weight	Frequency	Percent	Percent Responses	Means				
Poor	(1)	0	0.00%					4.30					
Weak	(2)	0	0.00%					4.18					
Satisfactory	(3)	2	20.00%	■				3.68					
Good	(4)	3	30.00%	■									
Excellent	(5)	5	50.00%	■									
N/A	(0)	0	0.00%										
					0	25	50	100	Question	School Level	Department Level		
Response Rate	Mean	STD	Median	School Level	Mean	STD	Median	Department Level	Mean	STD	Median		
10/10 (100.00%)	4.30	0.82	4.50	10032	4.18	0.90	4.00	582	3.68	1.08	4.00		

4 - The teaching assistant for this course is:													
Response Option					Weight	Frequency	Percent	Percent Responses	Means				
Poor	(1)	0	0.00%					5.00					
Weak	(2)	0	0.00%					4.16					
Satisfactory	(3)	0	0.00%					4.09					
Good	(4)	0	0.00%										
Excellent	(5)	1	12.50%	■									
N/A	(0)	7	87.50%	■									
					0	25	50	100	Question	School Level	Department Level		
Response Rate	Mean	STD	Median	School Level	Mean	STD	Median	Department Level	Mean	STD	Median		
8/10 (80.00%)	5.00	0.00	5.00	10025	4.16	1.01	4.00	579	4.09	0.96	4.00		

JHU - Krieger School of Arts & Sciences / Whiting School of Engineering
ASEN.2018.Fall

Course: EN.500.111.37.FA18: Hopkins Engineering Applications & Research Tutorials
Instructor: Gabriel Kaptchuk *
Response Rate: 10/10 (100.00 %)

5 - Please enter the name of the TA you evaluated in question 4:	
Response Rate	1/10 (10%)
• N/A	

6 - Feedback on my work for this course is useful:													
Response Option		Weight	Frequency	Percent	Percent Responses	Means							
Disagree strongly		(1)	0	0.00%			4.14		3.89		3.61		
Disagree somewhat		(2)	0	0.00%									
Neither agree nor disagree		(3)	2	20.00%	■								
Agree somewhat		(4)	2	20.00%	■								
Agree strongly		(5)	3	30.00%	■								
N/A		(0)	3	30.00%	■								
					0 25 50 100	Question	School Level		Department Level				
Response Rate	Mean	STD	Median	School Level	Mean	STD	Median	Department Level	Mean	STD	Median		
10/10 (100.00%)	4.14	0.90	4.00	9971	3.89	1.07	4.00	577	3.61	1.10	4.00		

7 - Compared to other Hopkins courses at this level, the workload for this course is:													
Response Option		Weight	Frequency	Percent	Percent Responses	Means							
Much lighter		(1)	2	20.00%	■		2.38		3.34		2.61		
Somewhat lighter		(2)	1	10.00%	■								
Typical		(3)	5	50.00%	■								
Somewhat heavier		(4)	0	0.00%									
Much heavier		(5)	0	0.00%									
N/A		(0)	2	20.00%	■								
					0 25 50 100	Question	School Level		Department Level				
Response Rate	Mean	STD	Median	School Level	Mean	STD	Median	Department Level	Mean	STD	Median		
10/10 (100.00%)	2.38	0.92	3.00	9984	3.34	1.03	3.00	582	2.61	1.34	3.00		

8 - What are the best aspects of this course?	
Response Rate	8/10 (80%)
<ul style="list-style-type: none"> • You get to hear about how cryptography affects the world. The class has the right balance between theory and practicality. • It is engaging. • It was awesome! Gabriel was always so into the material, you could tell he was really passionate about it. All the subject matter was extremely relevant, and he taught in a way that everyone could understand, no technical experience necessary. I learned so much about cybersecurity, it made me really excited about the subject! • It is very interesting content, and Gabe was great • The design is good • It really gives a good overview on all of the various aspects of cryptography and cyber security from the historical backing to more technical explanations of how these technologies are implemented. I really enjoyed the discussion, where we were able to explore the moral implications and other issues associated with encryption. • The materials are very interesting and engaging. My favorite part is in-class demo, especially hacking websites. • There was an interesting blend of both technological and political aspects to the course. 	

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ASEN.2018.Fall

Course: EN.500.111.37.FA18: Hopkins Engineering Applications & Research Tutorials
Instructor: Gabriel Kaptchuk *
Response Rate: 10/10 (100.00 %)

9 - What are the worst aspects of this course?

Response Rate 8/10 (80%)

- It is at 8:15 Thursday. I wish there were less midterms on Fridays
- It is late at night.
- it happened later at night which made everyone tired and sleepy for what would otherwise be a really engaging class.
- The limited time of class held to once a week
- None
- There were a few times when I felt that even with a technical background, I felt that some of the information was going over my head, and I was not quite grasping it as well as I could have. Also, I felt that the time of the class could have been better, since personally, I had no issues, but frequently, there was never 100% attendance as some kids decided it was not important to show up to class. I felt with better attendance, discussions would have been enhanced.
- None.
- The information is much more STEM oriented, so humanities based students will have a harder time understanding the material in the middle of the course.

10 - What would most improve this class?

Response Rate 8/10 (80%)

- Better time?
- A better time slot, and potentially a better/more spacious room.
- Make it earlier during the day if possible.
- I would say to include more projects
- None
- I really enjoyed the live demos, as I felt that gave me the best idea of what the specific encryption does. I feel that maybe a few more live demos would have been more engaging.
- None.
- Talk more about the political/humanities based aspects.

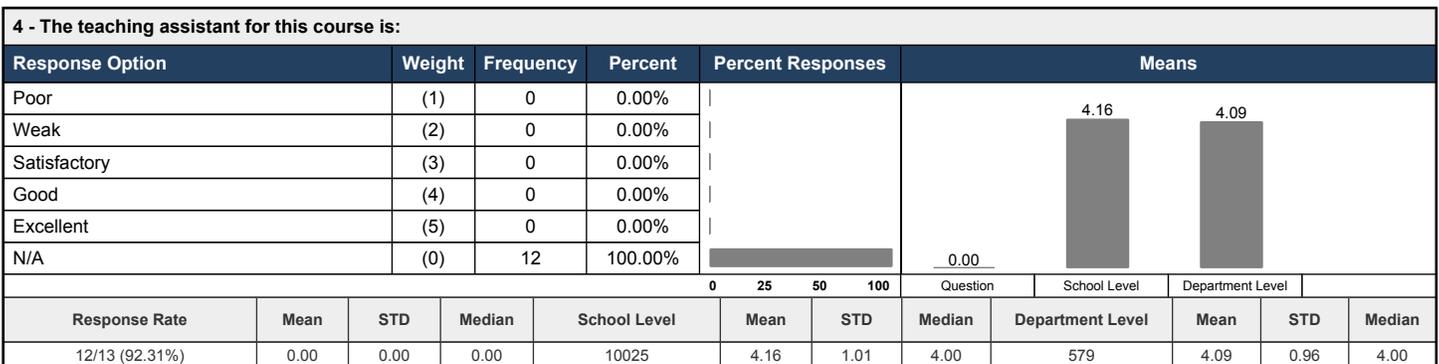
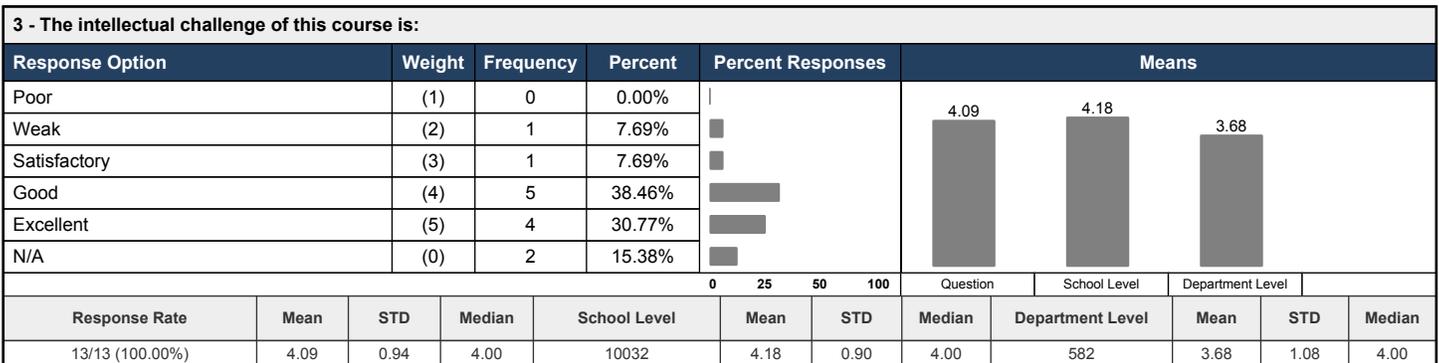
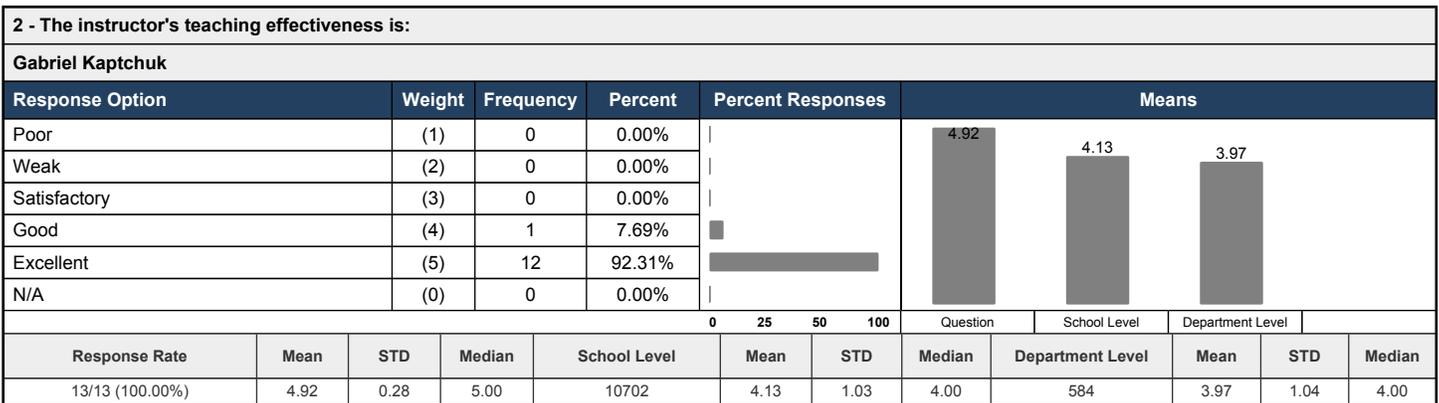
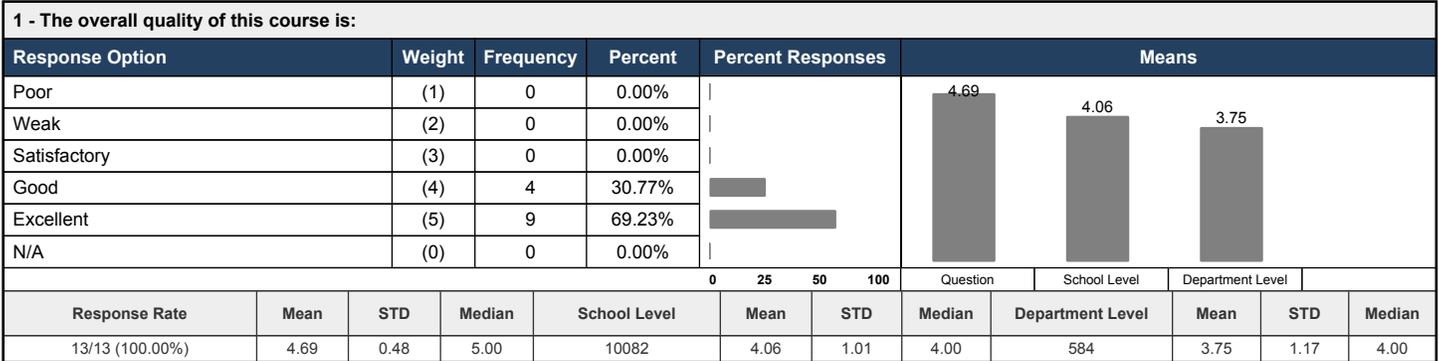
11 - What should prospective students know about this course before enrolling? (You may comment on any aspect of this course such as assumed background, readings, grading systems, and so on.)

Response Rate 8/10 (80%)

- It is satisfactory
- It is very easy to fit into a schedule and gives insight on a topic students may be interested in.
- n/a
- It is a very interesting class that will introduce you to computer security and cryptography in a fun way
- None
- Students should do the readings for the discussion, or else they would have nothing to say and it overall makes it so that there is only one or two people participating in talking. Also, students should have some sort of interest in the topic, as it is not always the best to be in the class with someone that's not as passionate about the topic.
- Recommend for students who are interested in computer security.
- It is an interesting course, but you will be confused if you are not a pursuing a STEM based major,

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ASEN.2018.Fall

Course: EN.500.111.26.FA18: Hopkins Engineering Applications & Research Tutorials
Instructor: Gabriel Kaptchuk *
Response Rate: 13/13 (100.00 %)



JHU - Krieger School of Arts & Sciences / Whiting School of Engineering
ASEN.2018.Fall

Course: EN.500.111.26.FA18: Hopkins Engineering Applications & Research Tutorials
Instructor: Gabriel Kaptchuk *
Response Rate: 13/13 (100.00 %)

5 - Please enter the name of the TA you evaluated in question 4:	
Response Rate	2/13 (15.38%)
<ul style="list-style-type: none"> N/A There was no TA for the course 	

6 - Feedback on my work for this course is useful:												
Response Option		Weight	Frequency	Percent	Percent Responses	Means						
Disagree strongly		(1)	0	0.00%								
Disagree somewhat		(2)	0	0.00%								
Neither agree nor disagree		(3)	1	7.69%								
Agree somewhat		(4)	2	15.38%								
Agree strongly		(5)	0	0.00%								
N/A		(0)	10	76.92%								
						Question	School Level	Department Level				
Response Rate	Mean	STD	Median	School Level	Mean	STD	Median	Department Level	Mean	STD	Median	
13/13 (100.00%)	3.67	0.58	4.00	9971	3.89	1.07	4.00	577	3.61	1.10	4.00	

7 - Compared to other Hopkins courses at this level, the workload for this course is:												
Response Option		Weight	Frequency	Percent	Percent Responses	Means						
Much lighter		(1)	5	38.46%								
Somewhat lighter		(2)	3	23.08%								
Typical		(3)	3	23.08%								
Somewhat heavier		(4)	0	0.00%								
Much heavier		(5)	0	0.00%								
N/A		(0)	2	15.38%								
						Question	School Level	Department Level				
Response Rate	Mean	STD	Median	School Level	Mean	STD	Median	Department Level	Mean	STD	Median	
13/13 (100.00%)	1.82	0.87	2.00	9984	3.34	1.03	3.00	582	2.61	1.34	3.00	

8 - What are the best aspects of this course?	
Response Rate	12/13 (92.31%)
<ul style="list-style-type: none"> The best aspects of the course are that Gabe Kaptchuk's enthusiasm is great and the content is interesting. Gabe is clearly enthusiastic about the material and provides interesting lectures -> Interesting topic -> Lots of group discussions The teacher presents in such a way that technical ideas are understandable and between the demos, readings, examples, discussions, and lecturing, the way material is presented is always varied and never routine or boring. Practical demonstrations of hacks The in class demo's. No assignments, once a week meeting. Gabe is good at giving presentations and lecturing on the material in a basic way. As someone who came into college interested in cyber-security, this course was a good introduction to various topics in cyber-security. Having a younger teacher was refreshing because he was easier to relate to. Also, he did a great job explaining difficult proofs to people who had not taken discrete math. Learning about different aspects of cyber security and being introduced to basic structures of how cryptography works Topics were very interesting. Professor Kaptchuk is very good at explaining complex concepts/ideas in ways that people with no comp sci background at all can easily understand. He also explains things using different illustrations so both non-math-minded and math-minded people can understand. The interesting content that is explained like it were explained to an 8-year-old (in a good way). This makes it for a great opportunity to learn basic concepts in computer cryptography and security without having the pressure to obtain good grades, etc. 	

JHU - Krieger School of Arts & Sciences / Whiting School of Engineering
ASEN.2018.Fall

Course: EN.500.111.26.FA18: Hopkins Engineering Applications & Research Tutorials
Instructor: Gabriel Kaptchuk *
Response Rate: 13/13 (100.00 %)

9 - What are the worst aspects of this course?	
Response Rate	11/13 (84.62%)
<ul style="list-style-type: none"> • The worst aspect of the class is the length of some of the reading assignments. • None, I really enjoy the class • -> I wish there were more hands-on activities • the time it is offered. • Lack of peer interaction • Not really any. • N/A • Not really anything • N/A • Some of the readings were very dense and technical. Though Professor Kaptchuk reassured us that it was okay if we didn't completely understand the readings, it was discouraging to read a passage several times and still not understand it at all. Also, the course was in the evening in the middle of the week, so participation was sometimes lacking simply because everyone was exhausted. • I think it could have dove a bit deeper in the crypto part's math. However, I understand that not everyone has a background in math or computer science. 	

10 - What would most improve this class?	
Response Rate	11/13 (84.62%)
<ul style="list-style-type: none"> • To improve the class I would recommend making the readings more concise. • I don't know, it's very good • -> More hands-on activities • a larger classroom with more chairs and table room. • More discussion activities as a class • Maybe giving resources for those who wish to learn more. • I liked the class as it was. • An inclusion of more programming aspect in cryptography • N/A • Class would have been much more lively if it had not been held in the evening in the middle of the week. • As stated above, maybe diving a bit deeper in the math. Additionally, having more open discussions on ethics could have been a good idea. Other than that, the course was really good. 	

11 - What should prospective students know about this course before enrolling? (You may comment on any aspect of this course such as assumed background, readings, grading systems, and so on.)	
Response Rate	12/13 (92.31%)
<ul style="list-style-type: none"> • Prospective students should know that the course is really interesting and worth taking. • Often little to work involved; great class to take if interested in the subject • Very interesting course, lots of fun. Teacher is great • super interesting course, worth your time. it's what you'd expect for a one credit - no work really, but take it out of interest. • More reading than other HEART courses is expected • Really fun and interesting, the teacher is great. If your interested in the topic at all you will enjoy this class. • N/A • It is helpful to do the readings before class, so that you can are not initially confused. • It's useful to do the readings provided in this course. • The topics presented in this class are very interesting if you are interested in computer security. The readings all present interesting topics and perspectives. • No background knowledge on code or any aspect of computer science is assumed, so this is a great class for someone who is just beginning to explore computer science. Professor Kaptchuk starts with simple, easy to understand explanations and builds off of those to cultivate a basic understanding of complex concepts. He is always willing to explain things again or in a different way. Assignments were entirely readings and one group project. • The content is very interesting and relevant. The workload is light as should be expected from HEART courses. Gabriel is entertaining and his teaching style is effective. 	