

## Systems Security (Spring 202230)

Instructor: **Onarlioglu, Kaan**  
 Subject: **CY**  
 Catalog & Section: **3740 02**  
 Course ID: **36278**  
 Objectives:

Enrollment: **49**  
 Responses Incl Declines: **43**  
 Declines: **1**

### Questions to Assess Students' Online Experience

Question	Number of Responses	Response Rate	Course Mean	Dept. Mean	Univ. Mean	Course Median	Dept. Median	Univ. Median
Online course materials were organized to help me navigate through the course week by week.	42	85%	4.5	4.2	4.1	5.0	5.0	5.0
Online interactions with my instructor created a sense of connection in the virtual classroom.	42	85%	3.8	3.7	3.4	5.0	4.0	4.0
Online course interactions created a sense of community and connection to my classmates.	42	85%	3.8	3.6	3.3	5.0	4.0	4.0
I had the necessary computer skills and technology to successfully complete the course.	42	85%	4.4	4.3	4.3	5.0	5.0	5.0

Note: 5:Strongly Agree; 4:Agree; 3:Neutral; 2:Disagree; 1:Strongly Disagree; 0:N/A;

### Course Related Questions

Question	Number of Responses	Response Rate	Course Mean	Dept. Mean	Univ. Mean	Course Median	Dept. Median	Univ. Median
The syllabus was accurate and helpful in delineating expectations and course outcomes.	42	85%	4.6	4.5	4.5	5.0	5.0	5.0
Required and additional course materials were helpful in achieving course outcomes.	42	85%	4.6	4.3	4.3	5.0	5.0	5.0

Note: 5:Strongly Agree; 4:Agree; 3:Neutral; 2:Disagree; 1:Strongly Disagree;

### Learning Related Questions

Question	Number of Responses	Response Rate	Course Mean	Dept. Mean	Univ. Mean	Course Median	Dept. Median	Univ. Median
In-class sessions were helpful for learning.	42	85%	4.7	4.3	4.3	5.0	5.0	5.0
Out-of-class assignments and/or fieldwork were helpful for learning.	42	85%	4.8	4.4	4.3	5.0	5.0	4.0
This course was intellectually challenging.	42	85%	4.9	4.4	4.3	5.0	5.0	5.0
I learned a lot in this course.	42	85%	4.7	4.5	4.3	5.0	5.0	5.0

Note: 5:Strongly Agree; 4:Agree; 3:Neutral; 2:Disagree; 1:Strongly Disagree;

### Instructor Related Questions: Kaan Onarlioglu

Question	Number of Responses	Response Rate	Course Mean	Dept. Mean	Univ. Mean	Course Median	Dept. Median	Univ. Median
The instructor came to class prepared to teach.	42	85%	4.9	4.7	4.6	5.0	5.0	5.0
The instructor used class time effectively.	42	85%	4.8	4.5	4.4	5.0	5.0	5.0
The instructor clearly communicated ideas and information.	42	85%	4.7	4.5	4.4	5.0	5.0	5.0
The instructor provided sufficient feedback.	42	85%	4.5	4.3	4.3	5.0	5.0	5.0
The instructor fairly evaluated my performance.	42	85%	4.7	4.5	4.4	5.0	5.0	5.0
The instructor was available to assist students outside of class.	42	85%	4.9	4.5	4.4	5.0	5.0	5.0
The instructor facilitated a respectful and inclusive learning environment.	42	85%	4.8	4.7	4.6	5.0	5.0	5.0
The instructor displayed enthusiasm for the course.	42	85%	5.0	4.7	4.6	5.0	5.0	5.0

Note: 5:Strongly Agree; 4:Agree; 3:Neutral; 2:Disagree; 1:Strongly Disagree;

### Instructor Effectiveness: Kaan Onarlioglu

Question	Number of Responses	Response Rate	Course Mean	Dept. Mean	Univ. Mean	Course Median	Dept. Median	Univ. Median
What is your overall rating of this instructor's teaching effectiveness?	42	85%	4.8	4.5	4.5	5.0	5.0	5.0

Note: 5:Almost Always Effective; 4:Usually Effective; 3:Sometimes Effective; 2:Rarely Effective; 1:Never Effective;

### Instructor Related Questions: Kaan Onarlioglu (95 comments)

#### Q: What were the strengths of this course and/or this instructor?

- 1 The structure of the course is very effective for learning. Kaan was also very enthusiastic and knowledgeable so it made it easier to pay attention.
- 2 Super interesting challenges that really help you learn security concepts, he's very passionate and funny especially when he talks about video games/anime
- 3 Kaan is an incredible teacher. He is very good at taking complex technical topics and making them understandable to the average student, so that you do not feel lost. The lectures are entertaining, and you learn a lot from them. The assignments are challenging but very rewarding and you learn a ton of relevant security skills from them. If you are struggling, Kaan is very responsive in office hours and on piazza, and is willing to work through problems with you if you need help.
- 4 The instructor was enthusiastic and knowledgeable on the subject, I enjoyed his sense of humor as well as commitment on Piazza
- 5 Knowledgeable and effective teaching instruction and outside of classroom assistance.
- 6 kaan was very communicative with me about my progress throughout the semester. he is great at listening to concerns, and even if hes intimidating, he does his best to make sure you learn and succeed
- 7 Kaan is incredibly knowledgeable in the security field. It is very fun to attend class, and I hope it stays that way in the future, memes and all.
- 8 It's obvious that Kaan is extremely knowledgeable in the field and he is able to convey complex ideas relating to security with ease. I am just a Computer Science major taking this class to fulfill my degree requirements, but I thoroughly enjoyed the material and content of this class.
- 9 This course was very interesting and felt very pertinent to cybersecurity. The professor was very enthusiastic and made the class fun while still being intellectual.
- 10 Kaan is very knowledgeable about the field and is able to turn that into very engaging lectures.
- 11 Super engaging and funny.
- 12 Kaan is a wonderful instructor and really cares a lot about security and teaching his students how to go about exploits in the real world.

He also goes in depth into topics that not many other courses really do, as well as giving bonus work if you want to go the extra mile.

- 13 Very understanding and quickly clarified all questions and problems encountered with assignments.
- 14 Great lecture style that is both entertaining and informative. Challenges are fun and apply well to the real work.
- 15 Kaan is the best professor that I have had at northeastern. He is super knowledgeable and is always there to help students with whatever they are struggling with.
- 16 I have to say, this is the best CS course I have taken. The assignments are so clear cut and focused, they really help me to learn. The professor is so invested in every student's success. If you try working on an assignment yourself and get stuck, you will always be able to get hints quickly that are super helpful without giving you the answer, even if it's 12AM somehow. When you do an assignment, you just submit a token usually, and there's immediate feedback, so there's no question about what your grade is going to be. I wish every class had assignments as good as this and a professor who cares so much more about you learning than giving out bad grades or having a good distribution of grades in the class. Hats off to Kaan and the TAs as well.
- 17 The course was designed and put together very well - everything is pretty relevant and you definitely learn a lot through the challenges. Quizzes/exams were quite detailed which required more effort. In general, love that it was very hands on & would 10/10 recommend!
- 18 Very passionate about security and one of the most knowledgeable practical security professionals I have met. I learned more about security from this course than any other cybersecurity course at Northeastern. He clearly conveys his ideas to students and provides good examples that help complete the challenges.  
Speaking of which, the challenges are truly practical and help students get their hands dirty trying the attacks and concepts shown in lecture. Truly a great experience all around. I recommend everyone even remotely interested in security take this course with Kaan.  
  
Note for Khoury College: Please keep assigning Kaan to this course. He's an invaluable security resource for students.
- 19 He makes the class very interesting informative, and is always really helpful on the assignments whenever you get stuck and need a few pointers/concept explanation without giving the answer away.
- 20 knowledge and experience
- 21 Very knowledgeable, available to help when requested, personable, approachable, heavy amount of wit, professor teaching content
- 22 Engaging lecturer with interesting assignments to complete; there was no busy work, all the assignments were very engaging and educational.
- 23 Energetic, funny, good at explaining complex topics and helping with challenges
- 24 He seems to love it and is very involved in the field
- 25 Very knowledgeable and enthusiastic about the content. Accessible outside class and very helpful.
- 26 Very knowledgeable, funny, and detailed lectures. Able to teach difficult topics in a way that is easy to understand
- 27 The instructor had really unique homework assignment.
- 28 Amazing feedback for questions regarding the challenges.
- 29 Kaan is very passionate about security, and is always trying to help his students make the most out of the course. He is always willing to help out with assignments in a manner that is most effective to learning.
- 30 Kaan's strength lies in the wealth of information he provides the students - usually, the questions he asked would have explicit hints available within the class material and resources to point anyone lost back on the right direction.
- 31 There were no strengths.
- 32 The challenges are very hands-on where you actually try to exploit security vulnerabilities.
- 33 kaan is goated: passionate about the material, helpful at all hours, and able to communicate with all skill levels
- 34 Caring a lot about students and answering questions on the class forums quickly and at most times of day
- 35 Instructor clearly is very capable, knowledgeable, and experienced in the field of cybersecurity. He clearly communicated ideas and concepts which were generally dense with information.
- 36 Kaan is a great guy -- he knows his stuff and will help you understand the concepts without giving you answers outright for the challenges
- 37 Very relaxed and easy to understand.
- 38 Kaan is fantastic. His assignments are hard, but not unfair and he genuinely cares that people learn. His lectures are hilarious and this was genuinely one of my favorite classes at northeastern.

#### **Q: What could the instructor do to make this course better?**

- 1 I preferred the original office hours schedule where it was after class. Once they got moved I didn't really attend office hours so I received a little less help.
- 2 idk

- 3 There could be more instructional demos. With such practical requirements in the challenges, I found myself struggling to do the hands-on part of the challenges even if I felt like I conceptually knew what to do.
- 4 N/A
- 5 It might help future students to have more guidance for where the best places are to research for aids in solving the challenges. I know there were many times where I felt a bit lost, and didn't know the best place to look for help without having to wait for office hours or staying after class.
- 6 I think it would've been helpful if we could have gone over some of the solutions to the harder/bonus challenges. Maybe in a final class that's not recorded.
- 7 N/A
- 8 Maybe more demos for students with little experience.
- 9 Maybe emphasizing even more on how early to start the challenges.
- 10 Add more recourses for useful information for assignments such as socket programming, linked libraries, communicating with servers using netcat, etc.
- 11 Provide more feedback on the quizzes.
- 12 n/a - probably my favorite course taken @ northeastern
- 13 More office hours and TA support, but that's not something Kaan can control.  
  
Note for Khoury College: Give this class more resources (TAs, office hours, etc.) so students are better prepared to succeed and learn. This was easily the best security course I have ever taken. Better than all others combined.
- 14 More memes  
Honestly not really sure; the class was amazing. Maybe include more a few more real exploits that happened for some subjects (like how we went over spectre/meltdown)? There was already quite a bit, but some sections felt like they could've had a few more examples. Especially the later sections, as at times they felt like they were getting very abstract and not quite as interesting as they could be.
- 15 all was good
- 16 Be less intimidating  
Maybe also releasing solutions to challenges after they were due
- 17 More guidance on where to start with challenges
- 18 Draw in more personal experiences if possible. I know security companies are very strict with their NDAs
- 19 Have more demos in class about the exploits and/or tools.
- 20 I feel like the average difficulty of the challenges could be increased.
- 21 It's really hard to review for the exam.
- 22 More challenges.. MORE
- 23 Provide more in-class examples akin to what the challenges represent. For many of my classmates, and occasionally myself, the challenges seemed to have a wide disconnect between the lecture content. Also, it would help to breakdown the challenges and provide a good overview of them when they are released, that way, people avoid the initial stumping confusion.
- 24 Some directives were not as clear as they could have been, and sometimes it was a little overwhelming trying to figure out or understand what was being asked of me.
- 25 Actually teach the material so students could complete the homework.
- 26 Demo challenges, sometimes the challenges were different to the stuff taught during class time
- 27 Have more office hours spread throughout the week and have more examples pertaining to projects
- 28 Record lectures more frequently. Oftentimes, he would expand on a concept on a single slide during lecture at length, none of which would be recorded if I missed something or wanted to review it later.
- 29 Not much -- some of the lectures were a bit dry but he explained this in advance and they were necessary nonetheless
- 30 More in class hands on exercises. Slightly out of control, but it's hard to remain concentrated for 3 hours.
- 31 maybe more of an emphasis on what is important for exams, but really nothing other than that.

**Q: Please expand on the instructor's strengths and/or areas for improvement in facilitating inclusive learning.**

- 1 The class is very well structured and the facilitation is very professional. The labs are very interesting and practical.
- 2 Include more points for me on the exams

- 3 He is a very entertaining lecturer and is a nice professor. His assignments can be challenging, but fair and you learn a ton. He is also very helpful when you ask for it. When you are in his class, you really get the sense he cares and wants you to do well.
- 4 Thoroughly enjoyable course although a lot of struggling if no prior experience to web application protocols and basic computer system knowledge.
- 5 Professor Onarlioglu is by far one of the best instructors I have had during my time at Northeastern. He's very knowledgeable in cybersecurity and conveys that knowledge effectively through his course slides and lectures. I learned more about cybersecurity in this course than I have in my 3 years at Northeastern thus far, and it truly confirmed that I love this major and want to continue on this path. Professor Onarlioglu's coursework was definitely challenging; however, he was always available during his office hours or within the hour on Piazza to provide assistance. All you had to do was put in the work and ask questions. His TAs were also very helpful at their office hours which I often utilized. TA Simon was patient with my questions and would take the time to explain topics pertaining to the assignments in a way that was easy to understand. He also drew diagrams which was super helpful because I learn better visually. I spent days on his homework assignments, but once I finally completed them, the satisfaction was beyond worth it. The learning environment is comfortable and inclusive, and there are always opportunities to ask questions. I felt sufficiently prepared for his quizzes and exams as well. Overall, I enjoyed my learning experience with Professor Onarlioglu.
- 6 Open for questions and didn't make anyone feel dumb for asking.
- 7 Kaan created a very inclusive learning environment and an environment open to questions.
- 8 Knows what he is talking about and makes it easy for a student to understand.
- 9 He is extremely nice and inclusive to all his students.
- 10 Very clear explanations of material, sometimes it was unclear how the material covered in class could actually be done in practice for the assignments.
- 11 Kaan is super helpful and engaging; found it easy to ask for help. Definitely knows what he is talking about & cares about making sure we understand
- 12 His lectures are appropriately tailored based on the background students should have entering this course. He doesn't go too in-depth in a concept without first teaching students the background they need to understand what he's talking about.
- 13 He's really good at communicating concepts effectively in an easy to understand way, and can give more examples to try and explain confusing parts.
- 14 no need, he is amazing !
- 15 Quite possibly the best CS/CY I've taken at Northeastern, full stop. Professor is very knowledgeable and displays a great sense of humor. Additionally, the challenges were practical and gave a great sense of satisfaction when completed.
- 16 Again, good lecturer, gave ample demonstrations in class to help with the challenges  
Only thing I would've appreciated would be more OH for the lesser experienced students who needed extra help or online OH
- 17 He really likes teaching and you can tell he does it just because he likes it not because he needs the money or needs to fill in time.
- 18 Course design is amazing. Challenges are challenging but relatively fair, facilitated students to do our own research outside of class.
- 19 N/A
- 20 Kaan made himself very approachable and understanding and clearly has a passion for the course topic and cybersecurity in general and I could tell that he just wanted the students to learn as much as they could and hopefully gain a passion for cybersecurity as well.
- 21 The instructor's lectures were completely disjoint from the homeworks and the homeworks were extremely difficult, so it was incredibly difficult to understand what was going on at any time.
- 22 N/A
- 23 Providing better-documented access to course materials would certainly make reviewing lecture information more straightforward. Currently, lectures were seldom recorded, and lecture slides were kept on a server without any information about when they were presented in lecture.
- 24 This class is the reason why I switched focus from software development to security
- 25 Challenges are very interesting and being thrown into them knowing rather little can be very exciting for learning new attacks/defences. More showing how to do challenges after they're done would have been very interesting.
- 26 dude is hilarious and lectures are rly good. 10/10 would take another class.

#### Questions to Assess Students' Online Experience (27 comments)

**Q: Please comment on your experience of the online course environment in the open-ended text box.**

- 1 I did not attend any classes online.

- 2 Literally all you need is the ability to ssh
- 3 Professor Kaan is very good at making the virtual space of the classroom welcoming. He is incredibly quick in responding to piazza posts and will respond with helpful information till you fix your problem or answer your question.
- 4 The lab environment was very well structured and all online resources easily accessible. Needed to use external resources many times to learn how to use certain technologies or find creative ways to solve the problems but the general ideas were always taught.
- 5 Great resources available. The challenge environment was amazing for learning and practicing real world examples.
- 6 The online course material was all in the same spot and the TAs and Professor were very good at answering questions on piazza in a helpful manner
- 7 Kaan's quick response time and through answers on Piazza was very helpful.
- 8 Everything was easily accessible and well written.
- 9 Kaan always posted the materials online and was very understanding when we were sick / couldn't attend class.
- 10 Quick and helpful feedback to any piazza questions I had.
- 11 Piazza was helpful to ask questions without waiting for office hours.
- 12 good!
- 13 The instructions to set up OpenSSH with warhead were very useful. Continue to emphasize them.
- 14 Maybe next semester enable OH to be accessible online?
- 15 The challenges were all related to what we got taught on the course time digging on your own. Bonuses, well those were hard but are bonuses after all.
- 16 Piazza was well run by the professor and was useful when stuck on challenges.
- 17 Even though the class is frustrating at times, it was incredibly helpful.
- 18 fantastic out-of-classroom support
- 19 The online environment was not a major part of this course. However, the course materials were not the most accessible.
- 20 Online support was more than adequate, I never felt like I was truly on my own to struggle through this course.
- 21 The professor and TAs were present on piazza, but the answers to questions were almost always vague and unhelpful to actually getting the correct answer for the homework.
- 22 Most things were in person. Only class forums were online.
- 23 Piazza was the all-purpose platform used to communicate with instructors and peers, but course material was stored on a remote server without a clear schedule to indicate which materials were used during which lectures. Additionally, finding grades to quizzes and exams was almost always a hassle.
- 24 All information was clearly presented on the course server
- 25 Everything is fairly well structured and easy to find when given directions (a lot of directories around). Piazza was active and questions were quickly answered.
- 26 If you don't use Piazza regularly you'll fail this course :)
- 27 Kaan is super flexible about allowing people to join via Zoom if they are sick/cannot come for whatever reason. Also posts zoom recordings.

### Student Self-Assessment of their Effort to Achieve Course Outcomes (32 comments)

#### **Q: What I could have done to make this course better for myself.**

- 1 Doing challenges earlier as well as taking notes during lectures.
- 2 Use OH/Piazza more and I could've solved the challenges faster
- 3 Pay attention more in class. It's a draining 3 hours (impossible to be 100% attentive) but everything needed to solve the problems and do well on quiz/exams were explicitly stated at some point in the lecture.
- 4 Asked more questions because Professor Onarlioglu was always available to guide us if we knew what questions to ask.
- 5 started challenges earlier
- 6 This class can reward a stubborn mindset. Sometimes, a problem just needs a substantial amount of time working on it, and that's fine. But it is very easy to go astray, and this can lead to hours wasted. Ask questions, and make sure you're focused on the right ideas.

- 7 Starting earlier on the challenges, even though I did well on completing the challenges, starting earlier would have made completing them a lot easier with more time to ask questions and try different approaches.
- 8 Start the challenges earlier.
- 9 I wish I started challenges earlier. I was warned but neglected the warning like a silly student.
- 10 Start the challenges earlier!
- 11 Ask questions on piazza earlier in the week, before I go to office hours.
- 12 Attended office hours more to better connect with the professor and TAs.
- 13 Probably start the challenges earlier, but I usually gave myself enough time. Try to pay attention during class, even though the lectures are long. You won't need to take notes as the slides are online.
- 14 Start on the challenges earlier, because they can really pile up if you don't get them done before the next one is released. Focus a little more on reading and light memorization of the slides before exams.
- 15 I could've split up the each of the parts of the challenges into smaller sections, so I could complete them over a few days rather than just one or two days of working for a long time on them (though that would be less fun).
- 16 less homework
- 17 Trying the bonus challenges during Spring Break.
- 18 Started doing the challenges earlier in the beginning of the semester
- 19 More outside research
- 20 Nothing, I really liked it my favorite course so far. Maybe, try and not have just one long class a week and rather two.
- 21 I probably should have started the bonus a bit earlier.
- 22 uhhhh, nothing really. I loved the class
- 23 1) Had a shot of espresso before meeting times, sometimes the lectures can run later than expected.  
2) Took active notes on the slides during class
- 24 I think starting challenges earlier would have helped me more, along with letting myself just struggle through things instead of being worried about my approach.
- 25 Probably just not take it.
- 26 Ask more questions
- 27 Done more personal research on the topics that we were studying
- 28 I could have attempted bonus challenges more frequently, not for the extra credit they provided, but for the challenge and enrichment.
- 29 Read over the slides after class to solidify that I understood the information
- 30 Put more time into challenges. Doing more outside research on the topics/attacks would have also been very helpful.
- 31 Have a stronger background in cybersecurity
- 32 gone to the one lecture i skipped because of nationals that had material on the damn quiz.