EVIDENCE OF TEACHING EFFECTIVENESS
GEOFFREY CHALLEN

My goal as an educator is to inspire students. But my responsibility as a scientist is to evaluate my teaching efforts with the same rigor as my group evaluates our research efforts. And my opportunity as a computer scientist is to apply my domain knowledge to creating more effective education tools. Today, keeping pace with technological advances is critical. Universities face a growing challenge from online education, and must compete online while also continuing to control the price of a college degree. So just as my research group, blue, designs, builds and evaluates novel computer systems, as educators we are also designing, building, and evaluating novel approaches to education.

At UB from 2011–2017 my primary teaching responsibilities were a large flipped introductory course on the internet (CSE 199, §2), an introduction to operating systems (CSE 421/521, §1), and a graduate seminar on mobile systems (CSE 72x). For two years I co-taught a graduate course on advanced computer systems (CSE 622). In the interest of space, this course and my graduate research seminar are not described. **In all my courses I give students the opportunity to build and use computer systems.** While I enjoy lecturing, I know that challenging projects inspire them to learn far more outside the classroom than they can inside.

When teaching "CSE 421/521: Introduction to Operating Systems" I was challenged to transfer an effective and challenging class from another institution but offer it with far fewer teaching resources. Out of this challenge emerged the `ops-class.org` online instructional framework (§ 1) and also the new idea of modular MOOCs, a research direction I am currently pursuing in collaboration with Margo Seltzer from Harvard University. Data collected from CSE 421/521 indicates that a number of improvements, including the development of the `test161` grading tool, have caused student assignment grades to improve each year. Reviews for the course have also been extremely positive—full evaluations are attached for reference.

With these experiences as a starting point, I designed and deployed our department's First-Year Seminar (FYS) offering on the Internet (§2) The Internet FYS provided a first opportunity to evaluate the success of a modular MOOC as one component of a hybrid online and in-person approach to a large course. I am incredibly excited about the opportunity to teach freshman students about the most transformative technology of our era. In addition, I am designing the course to both engage other educators and domain experts in contributing content as well as creating space for a variety of engaging in-class activities. My goal is to use this FYS as a recruiting tool to ensure that all UB students realize how exciting and relevant computer science is, and anticipate that this will help my department increase both enrollment and student excitement. While the course has only been offered once, preliminary data indicates that it has helped improve performance and retention in our concurrently taught introductory operating systems courses. Reviews for the course were mixed but promising, and student evaluations are attached for reference.

1 — CSE 421/521: INTRODUCTION TO OPERATING SYSTEMS (`ops-class.org`)

I have taught "CSE 421/521: Introduction to Operating Systems" every spring since joining UB in 2011. While the core material and audience have remained unchanged, I have made repeated attempts to improve the effectiveness of the course. I believe that several of these have been successful. To assess the effectiveness of the course and how it has changed over time, we look at two things. First, student course evaluations, which have always been excellent for CSE 421/521. Second, at student performance on the last and most difficult programming assignment, which has improvement dramatically over time.

1.1 — Course Evaluations

Evaluations of CSE 421/521 have been strong ever since the course was first offered. Table 1 shows 2013 scores for CSE 421. While these evaluations are old, they are one of few years when complete results for the rest of the department were available. UB has changed evaluation vendors rapidly, and so the format in which results are available has changed repeatedly from year to year. But the scores for CSE 421/521 have remained high, despite the fact that students consider it one of the most difficult courses in the department.

Attribute	Spring 2013 CSE		421	Compared to CSE
	Average	Deviation		
Enrollment			51	
Responses			44	
Response Rate	45%	22%	86%	**+42%**
Overall Rating of Course	3.83	0.59	4.14	**+0.31**
Overall Rating of Instructor	3.95	0.69	4.59	+0.64
The instructor had high achievement standards for this class	4.33	0.42	4.84	**+0.51**
The instructor clearly stated course expectations	4.29	0.47	4.45	+0.16
The instructor explained course material clearly	4.04	0.56	4.55	+0.51
The instructor clearly showed the relevance of the course to my discipline	4.15	0.56	4.66	+0.51
The instructor was responsive to questions	4.39	0.48	4.84	+0.45
The instructor encouraged student-faculty interaction outside of class	4.17	0.58	4.77	**+0.60**
The instructor provided useful and timely feedback on graded work	4.12	0.55	4.53	+0.41
The course projects, tests, and assignments required original or creative thinking	4.24	0.50	4.77	**+0.53**
The course projects, tests, and assignments helped me improve my knowledge or understanding	4.17	0.50	4.61	+0.44
The course stimulated my interest in the subject	4.06	0.56	4.25	+0.19
The course workload was appropriate	4.09	0.49	3.52	**-0.57**
Violations of Academic Integrity standards did not occur in class	4.47	0.41	4.62	+0.15

Table 1: **2013 Course Evaluations for CSE 521.** 2013 is a year when responses for other departmental courses were available. Color coding indicates better or worse than the CSE average, and bold values are where CSE 421 was over one standard deviation from the mean.

1.2 — Performance on Programming Assignments

A core component of my OS class are the programming assignments. Students typically find them extremely challenging and often struggle to complete them.

We have tried several techniques to help students succeed at the assignments. In 2014 we began a volunteer teaching assistant program. Unpaid teaching assistants—referred to as ninjas—were recruited from strong students from the previous year. We began with three ninjas in 2013, but the program has grown to 16 ninjas in 2017. Ninjas do not do any grading, but provide invaluable help in holding office hours. This year, while paid course staff are doing 10 person office hours, unpaid course staff are adding an additional 36. Because office hours are a primary way that students receive programming help, adding office hours should help students complete the assignments. And the success of the ninja program is itself a testament to the effectiveness of the class. Students feel grateful for what they have learned and are willing to return to help the next generation.

Year	Average (%)	Median (%)
2013	28	24
2014	43	40
2015	45	42
2016	48	50
2017	69	71

Table 2: **Improvement on CSE 421/521 Programming Assignments.** Students have continued to do better on the most challenging CSE 421/521 programming assignment. (Note that 2017 results are for the portion that has been turned in.)

To provide further assistance, in 2016 we rolled out a new automated grading tool called `test161`. `test161` is a distributed autograding system. Students can and do use it for local testing and iteration, but also use it to submit their assignments for secure remote grading. We use a novel secret injection approach that allows us to provide students with all of the tests that we will run on their assignments while being sure that they run correctly on our backend server when an official grade is computed. `test161` has helped students with local testing and also allowed us to write and distribute better and more comprehensive tests.

Table 2 shows the year-to-year improvement on student performance on the final, largest, and most challenge CSE 421/521 programming assignment: `ASST3`. Improvements have been continual, steady, and so-far this year, fairly dramatic. Note that this has happened at the same time that the assignments have become more challenging. Our `test161` framework has let us concoct more and better tests, and so it is actually harder to get points on `ASST3` than in was in 2013.

2

2 — CSE 199: HOW THE INTERNET WORKS (internet-class.org)

"CSE 199: How the Internet Works" was only offered for the first time in Fall 2016. The course was designed as a supplement to the introductory programming courses that freshman also take in their first year. So to assess its effectiveness, we look at two things. First, student course evaluations. Second, the effect of CSE 199 on student performance in other introductory computer science courses.

2.1 — Course Evaluations

Evaluations of the first iteration of CSE 199 were mixed and leave a great deal of room for future improvement. We are continuing to process the course evaluation data, but several main themes have begun to stand out:

- **Students did not like the cafeteria space.** It was difficult to find a room where we could have 340 students work together on in-class activities. The cafeteria that we located was the best option that we could find, and probably one of the best on campus. However, students correctly pointed out many flaws with the space: it smelled bad, was not always completely clean, lacked power outlets, and did not always have enough Wifi capacity for our activities.
- **Students considered the course disorganized.** During the first year we were racing the class to come up with new videos content and activities. Students detected this and reacted negatively to it.
- **Not all students appreciated the flipped format.** Activity-based courses engage students in a very different way than traditional lecture-based courses. Students cannot come to class, sit in the back, tune out, browse Facebook, and generally be "in class" without really participating. Not all students in the class appreciated the higher expectations that go along with activity-driven learning. There were also some misplaced expectations. For example, some students expected to interact with the course head (me) during every activity, despite the fact that I was not always there or available.
- **The course staff was new and not perfectly prepared.** Activity-based courses also place a heavier load on the course staff. Unlike lectures, where one instructor is responsible for the entire in-class learning environment, doing in-class activities relies on the course staff to monitor students and keep them motivated and on track. Our course staff was new, and not all of them knew the material well. In addition, we probably did not spend enough time training and mentoring the course staff during the semester.

With the exception of the space issue, many other student complaints can be easily addressed in future years. Starting with activities and videos ready to go will lessen the perception of disorganization, while also providing more time to train and mentor the course staff. The course staff should naturally improve over time as we find begin recruiting from students that took the class and did well. Concerns about the format can be mitigated through better messaging. Full quantitative and qualitative evaluations for CSE 199 are attached.

2.2 — Effect on Introductory Programming Courses

CSE 199 was offered for the first time last fall, making it too soon to measure its effect on multiple courses. However, we can examine data from courses that students tended to take alongside CSE 199, and on continuation in the major.

Introductory computer science majors also take "CSE 115: Introduction to Programming I" in their fall semester and continue to "CSE 116: Introduction to Programming II" in the spring. Table 3 shows data from the last 10 years of CSE 115. In Fall 2016, CSE 199 was introduced.

Year	Course	% Complete	Average Grade	% Continue
2007	115	82	2.28	56
2008	115	90	2.96	66
2009	115	90	2.65	61
2010	115	89	2.37	56
2011	115	79	2.31	57
2012	115	86	2.69	61
2013	115	89	2.80	60
2014	115	85	2.66	66
2015	115	85	2.2	62
2016	115	84	2.43	59
	115+199	96	2.66	71

Table 3: **Effect of CSE 199 on Introductory Programming.** Students that took CSE 199 did better on their introductory programming course and continued to the second semester at a higher rate.

I used student grade data to explore two questions related to the effectiveness of CSE 199:

- Did students that took CSE 199 do better in CSE 115?
- Were students that took CSE 199 more likely to continue on to the second semester of introductory programming: CSE 116?

As the data shows, students that took CSE 199 did better in CSE 115, with the average grade rising from 2.43 to 2.66. Students that were enrolled in CSE 199 were also less likely to drop out of CSE 115 before finishing: 96% versus 84% for the entire CSE 115 population. Finally, students that took CSE 199 along with CSE 115 were more likely to continue on to the second semester of introductory programming: 71% continued versus 59% for the entire CSE 115 population. While this data is preliminary, we believe that by exciting students about computer science and introducing them to useful tools and ideas, CSE 199 is having a positive effect on our department's curriculum.

CSE 421LR (000): Operating Systems, CSE 521LEC (000): Operating Systems

114	Students Enrolled
107	Students Responded
93.86%	Response Rate

Spring 2016 | Geoffrey W Challen

Quantitative

	Very poor	Poor	Fair	Good	Excellent		N	DNA	SD	M
Overall, this course was:	1.87% (2)	8.41% (9)	19.63% (21)	30.84% (33)	39.25% (42)		107	0	1.05	3.97

Please rate your agreement with each of the following statements about this course:	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**		N	DNA	SD	M
The course was well organized.	1.87% (2)	5.61% (6)	7.48% (8)	44.86% (48)	40.19% (43)		107	0	0.92	4.16
The course was intellectually challenging and stimulating.	0.93% (1)	0% (0)	3.74% (4)	29.91% (32)	65.42% (70)		107	0	0.66	4.59
The work load in the course was reasonable and appropriate.	18.69% (20)	22.43% (24)	24.3% (26)	22.43% (24)	12.15% (13)		107	0	1.29	2.87
Methods of evaluating student work were fair and appropriate.	3.74% (4)	8.41% (9)	21.5% (23)	34.58% (37)	31.78% (34)		107	0	1.08	3.82
The course content (assignments, readings, lectures, etc.) helped me meet the learning expectations set forth by the instructor(s).	6.54% (7)	8.41% (9)	11.21% (12)	28.97% (31)	44.86% (48)		107	0	1.22	3.97

	Required	Elective	Other (please specify)				N	DNA	SD	M
For what primary reason did you enroll in this course?	56.19% (59)	18.1% (19)	25.71% (27)				105	0	-	-

	Undergraduate Major	General Education	Graduate Program	Other educational program (e.g., Honors, Undergraduate Academies, Certificate, etc.)	This course was an elective	N	DNA	SD	M
This course is required for:	54.29% (57)	0.95% (1)	35.24% (37)	0% (0)	9.52% (10)	105	0	-	-

Please rate your satisfaction with the instructional facilities for the course:	**Very Dissatisfied**	**Dissatisfied**	**Neutral**	**Satisfied**	**Very Satisfied**	**Not Applicable**	N	DNA	SD	M
Classroom Space	0.95% (1)	1.9% (2)	2.86% (3)	22.86% (24)	71.43% (75)	0% (0)	105	0	0.72	4.62
Classroom Technology	0.95% (1)	0.95% (1)	4.76% (5)	22.86% (24)	65.71% (69)	4.76% (5)	105	0	0.72	4.59
Recitation Space	2.86% (3)	4.76% (5)	15.24% (16)	24.76% (26)	45.71% (48)	6.67% (7)	105	0	1.06	4.13
Lab Space	3.81% (4)	8.57% (9)	8.57% (9)	7.62% (8)	29.52% (31)	41.9% (44)	105	0	1.35	3.87

	Very poor	Poor	Fair	Good	Excellent	Not Applicable	DNA	SD	M N
Overall, this instructor was:	1.9% (2)	4.76% (5)	9.52% (10)	21.9% (23)	61.9% (65)	0% (0)	0	0.97	4.37 105

Please rate the course instructor according to each of the following statements:	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**	**Not Applicable/ Don't know**	N	DNA	SD	M
The instructor clearly presented what students should learn (the expected learning outcomes) for the course.	0% (0)	2.86% (3)	4.76% (5)	23.81% (25)	68.57% (72)	0% (0)	105	0	0.71	4.58
The instructor was enthusiastic about teaching the course.	0% (0)	0% (0)	0.95% (1)	12.38% (13)	85.71% (90)	0.95% (1)	105	0	0.38	4.86
The instructor made students feel welcome in seeking help/advice in or outside of class.	5.71% (6)	4.76% (5)	7.62% (8)	19.05% (20)	62.86% (66)	0% (0)	105	0	1.15	4.29
The instructor presented material clearly.	0% (0)	2.86% (3)	6.67% (7)	21.9% (23)	67.62% (71)	0.95% (1)	105	0	0.74	4.56

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	N	DNA	SD	M
The instructor creates an environment of inclusion in which everyone can participate equally.	3.81% (4)	2.86% (3)	14.29% (15)	35.24% (37)	43.81% (46)	105	0	1.01	4.12

Please rate your agreement with each of the following aspects of this course.	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	N	DNA	SD	M
The instructor had high achievement standards for this class.	0% (0)	0% (0)	2.86% (3)	27.62% (29)	69.52% (73)	105	0	0.53	4.67
The instructor clearly showed the relevance of the course to my discipline.	0% (0)	1.9% (2)	5.71% (6)	40.95% (43)	51.43% (54)	105	0	0.69	4.42
The instructor provided useful and timely feedback on graded work.	1.9% (2)	0.95% (1)	7.62% (8)	40% (42)	49.52% (52)	105	0	0.81	4.34
Violations of Academic Integrity standards did not occur in class.	2.86% (3)	8.57% (9)	23.81% (25)	27.62% (29)	37.14% (39)	105	0	1.09	3.88

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	N	DNA	SD	M
The teaching assistant(s) were effective in the recitation/lab and office hours.	1.69% (1)	5.08% (3)	22.03% (13)	42.37% (25)	28.81% (17)	59	0	0.93	3.92

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	N	DNA	SD	M
The teaching assistant(s) were helpful in office hours.	0% (0)	2.17% (1)	0% (0)	34.78% (16)	63.04% (29)	46	0	0.61	4.59

Qualitative

Please comment on the elements of the course you found particularly effective. -

- I liked the lectures/videos/notes, the course website and assignment submission/feedback system is stellar, and Geoff is very enthusiastic about the course.
- really, really , really which I understood the os161 OS, still asking myself what program i am writing.
- Geoffrey Challen's existence. Also, the gro0vy music that made learning invasive material late in the day less painful.
- The OS161 project and the amount of office hours provided for it was incredibly challenging but manageable. The heavy weight on exams allowed good leniency so the project wasn't one make or break grade.
- I found the recitation slides and TA help to be the best help.
- Online outlines, slides, and lectures were very thorough. It it incredibly useful for studying or going back to master material. I think every course should be required to provide similar resources. The ops website is really great.
- Lecture was stimulating
- The assignments are definitely challenging enough and the lectures were always interesting.
- Challen is a decent to middling lecturer. It's crap material and subject matter and to his defense, Kosar was actually worse at it.
- Having TAs, the website, classes recorded and put on YouTube, I really wouldn't change anything.
- The course videos were amazing, I really enjoyed attending every single class. The assignments were challenging and interesting. The evaluation methodologies were fair.
- Assignments
- The content of the lectures are good and relevant. The assignments are way too hard for students and almost useless.
- The lectures were engaging and I feel as though the topics presented were interesting to learn about and applicable to my everyday computing.
- Assignments were very good! and extensive TA hours.
- assignments are challenging
- The projects were really good. I learnt a lot from them. TA s were really helpful.
- Awesome assignments. Made the semester worthwhile
- Classroom Teaching and Recitations
- I found that the level of difficulty increased well. The first assignment was just the right difficulty to learn the system while still doing something useful. The consecutive assignments were of an appropriately increasing difficulty.
- This was one of the best classes I have ever taken. I learned more about these various subsystems of operating systems and gave myself the confidence that I could contribute to developing a real production system.
- The project style of homework was much nicer than the weekly homework that we see in other classes.
- Loved the progression from locks to system calls and then finally memory management.
- The lectures were fun and really never felt dull.
- I found the tool chain test161 to be quite effective. It was easy to use (for the most part) and was a way to get feedback and gauge progress through the programming assignments.
- None.
- The work is very hard, but incredibly engaging. This course is definitely a real-world prep course and goes beyond the classroom, teaching time management, problem solving and different types of thinking. The lectures were very interesting and the course website is fantastic!
- The pace of the material was very reasonable. It was not too quick that I was confused, and it not too slow to be boring.
- I think he is pretty good
- I enjoyed the lectures. They were very interesting, and I felt like I learned a great deal of conceptual OS knowledge from them (and from reviewing the notes online).
- The assignments!
- PERFECT CLASS. COULD NOT BE BETTER.
- The concepts in class were taught pretty well.
- - The course material was challenging but interesting and stimulating enough to merit the work required. - Scott's test161 was a great tool with which to work. - GWA's lectures were enjoyable and informative. - The general attitude along the lines of "yes, this course is difficult; get to work" was refreshing. - Working with Discourse was pleasant.
- TAs were very helpful.
- The lectures were quite informative and easy to understand, and being able to actually write an operating system was quite the experience
- The classes were really good, I could even watch the recorded version of class if I missed out on attendance. The assignments are tough and take a lot of time but totally worth it.
- A life changing course! I am a different person after taking this. And I say this because this course has made me more confident at programming!
- Teaching style of GWA, insights into how to design system
- Using OS161 was the best part
- Geoff is easily one of the best professors I've ever had. You can tell he is passionate about what he teaches.
- The projects are really intensive and have improved my debugging skills.
- Lectures were very interesting. Recitation was helpful for completing assignments. Having recorded lectures and recitations was effective for studying, completing assignments, and reviewing the material in general.
- Lectures are pretty entertaining + informative
- The lecture was intriguing and provided new information. The work was related to the course and provided good insight into operating systems.
- The ops-class.org site and YouTube videos were helpful.
- Covered as many concepts possible.
- Git, Test161, Virtual Memory
- A lot of TAs and Ninjas, going over topics in class before the assignments, previous exams. Tests for our assignments and a way to submit multiple times and make sure we get a good grade. A professor that actually cares to be teaching! Also thank you Ali and Xu for taking the time to grade our exams!
- The programming assignments were of increasing difficulty and are gave the right platform to get hands on experience for starting with kernel development.
- Lectures were very fun and I learned alot

- The assignments.
- Lectures was fun to attend, and I particularly liked the fact that the course never went too deep into hardware aspects of the OS.
- The assigts were great
- Nice assignments………. Very less time.
- Assignments were fun and learnt a lot from them
- Everything… The professor goes out of his way let everyone learn what he wants to teach.
- Lectures were always interesting and led into topics covered in the lab assignments.
- The lectures in 421 were incredibly stimulating and deep. Every topic was thought provoking, and the level of difficulty throughout ranged enough such that each student in the course was allowed both moments of clarity and analysis, and moments of challenge and intrigue. The course website was an extremely useful tool, as it served as an easy-to-use hub for all things CSE421. Accessing schedules, lecture notes and videos, and the course forum was all doable from navigating via ops-class.org. The course staff was fully equipped to answer questions and supplement lecture material.
- This class was awesome, one of the best at UB. The course was structured well, covered the expected topics and taught me a lot. The projects were challenging, but necessary for understanding of the topics covered in this course.
- ops-class.org website, test161 webui + client, previous year's youtube video's, numerous course staff assistance
- Assignments are difficult, but very educational.
- I thought the lectures were interesting
- Both the lectures and the assignments taught me more about computer systems and programming than any other class I'd taken at UB.
- The videotaped lectures, notes, and slides were awesome. The lectures were pretty entertaining and fun to watch. They definitely help me study better and I appreciate having all the extra material to use. When you put coding snippets into the lectures, that was great to help me understand synchronization concepts
- TAs and ninjas are very helpful. Many work overtime for this class… Lecture slides are well organized.
- Having a lot of office hours is nice.
- Lectures are great.
- Recorded lectures.
- The programming assignments had insane test cases and was so much FUN! Loved the course website and all the work put into it. So much effort has gone into making this class awesome. Really appreciate it! Loved that we didn't have to submit our design documents and all points were for programming only. Adding deadlines to projects helped too. The BEST course at UB!! Lot's of help available if you need it. Don't get intimidated about taking the course, dive right into it.
- The class notes and the video lectures were very helpful.
- The professor's enthusiasm was excellent and helped me in relating with the topics covered in class
- Hacking and fixing OS161 is probably the best(and worst) assignment I've ever done. I've really learned a lot from the assignments, learned a lot about operating systems from the fun classes (which are meticulously recorded) and GWA's musical tastes.
- TA section is great than ever. It really helps.
- The lectures were very interactive and engaging.
- The efforts put forth by professor and TAs is really good. They have designed the course structure and timeline very well. Also, one thing which I felt in love with was TEST161. It is the test suite I have never seen before. They have worked very hard for that.

Please comment on course improvements you would suggest. -

- For someone like me, who has no background in OS or OS related concepts, the course is really tough. Professor might include some basic stuff in introduction to assignment material. Generally people followed Jinghao's blog for whole course so something informative can directly be added to assignment description. But again, these all comments are subjective. My comments are due to the difficulties I faced in completing assignments but others who were able to finish easily might not feel the same.
- The programming Assignments were complicated. There should be more focused documentation about tackling them
- Please avoid last minute test script changes (forktest in ASST2)
- Lighten the course just a little bit. By this what I mean is the test cases could be made little less strict. Because with four courses it becomes very difficult to get full points.
- This course did not feel like an intro course. This class has no prereqs for the material that was covered and the time commitment needed to do well was far outside of the range of being a 4 credit course.
- To not expect students to be great programmers, and assume that they received enough background in programming to complete the assignments. Class requires a lot of C programming, whereas no class has reasonably required nor taught sufficient amount of C to prepare students prior to OS.
- More help in understanding assignments and how to start off with them
- Having even more office hours. And not necessary all between the hours of 9-5. Or instead, have mentors assigned to each group and larger groups.
- I find several things unfair about this course: one is the incredible workload. Yes, I've learned a lot about c programming (when will I use that again?), synchronization primitives, processes, address spaces, etc. But I've gone through hell to get what knowledge I've acquired so far. The programming assignments are extremely difficult and seem great for maybe a second course in OS, not an introduction. It's great for people who already like systems programming and have a knack for it, but awful for the rest of us. Also regarding assignments, I think it's unfair to be releasing tests midway through the submission period, especially the day before the due date, as in assignment 2. That's pretty unprofessional. As for assignment 3, several groups who managed to finish earlier than others could submit and get full credit while those who get finished later are subject to newer tests. And too much of assignment 2 was riding on getting execv to work. Why did almost every test need to be run from the shell? Even if the file system calls worked perfectly, you couldn't get a decent amount of credit for them until you finished all the process system calls. Have some mercy. Ok, that's a lot of complaining about the assignments. And I know you won't simply replace them with something else. But please, think of ways to not make them a nightmare for most students. Maybe reinstate some code reading questions for credit. I think a lot (probably even most) of the students in the class are discouraged by how things have gone so far. Lecture attendance has plummeted. I've seen less than 20 students in a lecture... You'll have to achieve a better balance if you want most of your students to leave with a good impression.
- For the coding assignments, simple and clear instructions would go a long way to eliminate confusion. Half the battle of the assignments is trying to understand what we need to do from the website and I'm not talking about the code reading. The directions would lead me and my partner to think we'd have to code one thing, but the tests would test us on other things. It lead to a lot of wasted time. Once we did figure things out, coding wasn't too bad. Also, if there are bits of information vital to understanding the assignment being posted on discourse, it would be awesome if it was grouped with the information on the course website. Along those same lines, another factor that made things confusing is that coding vocab wasn't consistent or clear enough. It's okay if you use synonyms, you just got to be clear that they mean the same thing. It's hard to guess what coding vocab means and google can only help so much. It would be cool if the lectures related to the code a bit more. I didn't find them super helpful for the coding assignments. Also, I felt the organization of the content was a little weird or not as clear as it could have been. Again, vocab was used that wasn't super clear, or vocab was given multiple definitions. If you're trying to build on previous concepts make sure you lump the entire definition or concept together at one point to make sure it's entirely clear to us what you mean. It would also be awesome if you put more coding snippets in the lectures once in a while. It's not always easy to see how these higher level concepts translate into code. I didn't find the recitations to be useful. A couple of the videos from previous years were great, but this years videos weren't super helpful.
- Perhaps tweaking the deadlines for the assignments... Make asst. 1 be a one week assignment, give two weeks for file sys-calls, two weeks for proc syscalls, one week for coremap, and three weeks for the remaining two assignments.
- Do not penalize for memory leaks or penalize less
- This is a good course, but it is not a 4-credit course. I've had 8-credit courses that were half as much work as this class.
- More general guidance on thinking and approaching ASST3 - very little resources exist. Midterm needs ~10 minutes more of time. Major issue: tests (for test161) need to be FROZEN a minimum of a week before assignment due date - sans any bugfixes. It shouldn't be possible for me to pull changes two days before the due date and fail a test, due to an additional check being added.
- Setting intermediate deadlines (like for project 3) and giving a little more structured project descriptions could be helpful. Maybe a longer time for project 2 and less for project 3 would have been helpful, IMO.
- It's truly difficult to provide constructive feedback for this course. In writing, the class is spotless; We as a student body could not ask for a lecturer with a better wealth of knowledge and determination than Geoff, or a course staff so willing to give countless hours per week in aid on assignments, or a more awesome website that ties the class components together. That being said, it is clear that this class was catered for a school in which the courses leading up to it prepared students in a way that implementing concepts covered in the course is not an entirely new task for them. The course is awesome, and it's just unfortunate that it did not fit into UB-CSE's current curriculum that well. The specific elements of the course that may require some work in my opinion, are: - Assignment descriptions: Each assignment released to students seemed to get more vague than the last in terms of their explanations. By the last assignment (ASST3), it was difficult to understand all the moving parts and decipher what was being asked of us, propounding the level of confusion and idea of where to start the assignment. - Lecture Depth: As mentioned above, the lectures in the class were brilliant and engaging. What became frustrating though, was the level in which they related to assignment progress (or lack thereof). Even after attending every lecture, and revisiting the notes/slides online, it seemed difficult to apply things learned in class to developments on the projects. I understand that code should not be covered in class (or recitation for that matter) and that there is only so much time to relay material, but there was a clear disconnect between the theory/concepts learned in lecture and what was required to implement in the projects that made it difficult to develop momentum in assignment work.
- I think the only thing that may need improvement is that the assignment requirements should be laid out in more detail explaining what files need to be changed and the scope of each assignment. Currently the descriptions especially with asst 3 seem to general and brief.
- Anything else would be an improvement
- I would suggest more of guidance with the reading material regarding assignments.
- Give us more time for assignments.......... without plenty.
- May be give more time for assignments

- Assignment 3.1 was easy, and 2 weeks for it was too much. 1 week is more than enough for it. Some way to catch memory leaks in assignment 2 for process & file system calls would be very helpful, although I doubt it can be done. More penalty for late submissions. Only 10 points deduction for Assignment 3.2 is not fair.
- None, its a very good course.
- The coding assignments need be explained more or just made easier
- Why not make more information available for completing the assignments? Otherwise most people are asking the TAs the same questions. An updated blog would really help.
- one of the best courses
- More guidelines on doing assignments could have helped. Instead of assignments only, there could have been quiz or bunch of smaller programming questions to solve.
- Need some more help with reading material for the assiignments
- The assignments are TOO difficult. One cannot expect to complete the work while taking higher leave required courses simultaneously. I've felt lost this entire time and I'm extremely disappointed in the cse program for making students feel so depressed.
- As the course is evaluated primarily on the project work, more of the lecture time should be devoted to that material in a more explicit way.
- More information on the projects. The lecture would skim or not cover a project topic at all and there was very little help online or in books to help understand the material.
- Slightly reduce difficulties on assignment perhaps
- Perhaps split the assignments into smaller "sub" assignments to facilitate completion because the workload for this course is large.
- None. Extremely satisfied with the course. The best course in UB I've taken so far
- The only thing I could think of is links to resources to help with the assignments.
- Maybe a bit more guidance where to find more help. `
- I can't come up with any ! I loved this course
- I would suggest keep a test to determine partners at the beginning of the semester. I was stuck with a partner who barely worked after the spring break. As a result I suffered a lot. Still suffering while I'm writing this since I have had to do almost everything in the assignments.
- The only suggestion I have is the work load. The assignments take way longer, spanning weeks, if you are taking any other challenging course(as in spring semester), it's hard to complete either and you are forced to choose one to complete.
- The resources for the operating systems project were somewhat lacking and led to more confusion that there needed to be
- This doesn't seem like an intro class. And the workload is a lot given we are taking a lot of other classes as well. I would suggest breaking it up into two classes. One intro with ASST1 and 2. And the advanced one with ASST3 and ASST4.
- - Design goals for ASST2 were underspecified. In particular, I ran into trouble with available memory varying between tests. Because of these moving goalposts, I ended up writing code to satisfy the tests without a larger picture in mind. Having a hypothetical real world use case for the operating system and more consistent system configuration for tests would have made the design phase more enjoyable. Even if the stated design goal was to write an OS capable of running on a variety of hardware, design decisions would have been more interesting and could have been made more confidently. - Lecture time was wasted waiting for answers. A significant portion of lectures was spent waiting for students to volunteer answers to questions. GWA mentioned cold calling at the beginning of the semester, but it did not happen. Cold calling, with the proviso that "I don't know" is an acceptable response, would have minimized time wasted waiting for responses.
- A little more guiding would definitely be helpful, coding the portions of the operating system is quite painful when you have to find out where to start, which takes up a good portion of the time. I personally would rather have that time saved for debugging. Also, I personally think grading is slightly more unfair than fair because of how the automatic tests were made to work. Some of the tests require you to pass the other tests to run, meaning even if I could get the last portions of the tests to run, the actual grading system wouldn't execute it unless the first tests are completed. So in that sense, I wouldn't get all the points I fully deserved.
- Could be more like harvard... But there should be more accountability for partners that dont do shit.
- The assignments were VERY difficult and time consuming, both of which were completely expected going into the course. However, on the previous page I indicated that the course could have been more organized, and I believe this lack of organization added to the difficulty in completing the assignments. Firstly, the various outlets for information regarding the course should be less "scattered". By that, I mean that we relied on Discourse too much for providing IMPORTANT information that would seem to be better posted on the course web page. My next point provides a little more detail... Secondly, the assignment descriptions on the course webpage do not seem to be organized well enough (or with enough detail) for many of us to actually figure out what to do on the assignments! I know that part of each assignment is figuring out what to do (not JUST doing it), but it sometimes took WEEKS of consulting Discourse, the Assignment description, Jinghao's blog (I know this isn't official course material), and office hours just to figure out what to do, much less actually do it. To me, this means that the assignment descriptions are not clear enough, and having to consult so many sources, some of which conflict with each other (more on this in my next point) led to disorganization overall. It seems that the os161 website is intended to be used by anyone who wishes to learn about Operating Systems, regardless of whether or not they are enrolled in a class at UB. However, I do not see how anybody "on the outside" could be successful in doing these assignments without some of the information on Discourse. Things that pop into mind off the top of my head are specifics of how to configure os161 and test161 at the beginning of the course, as well as better descriptions of the workflow for each assignment. It would have been helpful to know more details of dependencies in the tests and circular dependencies in the functionality of the operating system components. A little more detail about a relative order of what to implement would have gone a long way, and I feel that this is something that should be found on the assignment descriptions, rather than searching through Discourse (if it was even on Discourse). It took a LONG time and a lot of crawling around in the dark until we could get to a point where we say "Okay, we need to implement functions A, B, and C, and then tests D, E, and F should work. Then implement data structure U with functions V and W, and tests Y and Z should work." Some more detail to get us to that point would have been very helpful. I made a point in my previous paragraph about sources of help not being consistent. I definitely found this to be true. I know that when asking TA's/ninjas for help, we are asking different people and we will of course get different opinions. However, my partner and I experienced instances where we went to office hours and were told information that was flat out WRONG. I know that TA's/ninjas took a different version of this class than we are currently taking, but every wrong piece of information that's given is a huge setback in a course that I'm sure most people would agree is already incredibly difficult. So, the extra office hours that compensate for the difficulty of the assignments are not exactly always fair compensation. A point about all of the office hours that are offered for this course: I appreciate the abundant office hours and especially the willingness of the ninjas to dedicate their time for no formal compensation or credit, but what does it say about the course itself that so many office hours are needed? I don't think I'm wrong in saying that there are about 5-6 times more office hours offered for this course than there are for any other course at UB. So many office hours should not be needed! Since they are, this brings me back to the point of course organization and the lack of detail in the assignment descriptions. If there was more detail and organization in the assignment descriptions, then we would be less reliant on (possibly conflicting) TA's/ninjas in office hours. Lastly, depending on which recitation one was in, they may not have started receiving any recitation help on an assignment until a week before it was due. (And had their 2nd recitation for the assignment on the actual due

date.) This was addressed by posting the notes online after the earliest recitation was completed. I was happy with this solution and would suggest that in the future, the posting of notes keeps being done, or recitations get "bumped back" a week so that they fall more in line with when people need help on the assignments. Thank you for taking the time to read my lengthy response!

- hm...so hard....

- The assignments are difficult. However, this would not be a complaint of mine if we were given more guidance at the beginning of the assignment. I've had to go to office hours over 20 times this semester. This was mostly for questions like "what am I supposed to do next?", or "where do i start with this assignment?". Another comment about this course is the requirement of "C". C was not taught in previous classes, but it is required for the assignments. I have spent way too much time working on the assignments and getting nowhere. I tend to spend a lot of time on the assignments when I fully understand the concept of the assignment but the structure of the assignments are misleading and confusion. So, i feel like the work put into the assignments tend to be detrimental towards the purpose of the task.

- More details on how to approach assignments and where to start them could be beneficial in class. For instance, I would have benefited from some C/Linux examples in class during the system call portion of the class.

- Should make an course website quickly before starting the semester. Hard to study and catch up in the first two weeks even the materials for the course are hard.

- I would suggest adding back in the grades for the code reading questions in the future as I know of many students who neglected to do the code reading due to lack of motivation and I personally found the code reading to be beneficial.

- Before an assignment is distributed, gear one lecture's material towards helping the students fully understand what is expected of them / where to start.

- Only thing I could think of would be to spread out assignment 1 and 2 together, just so that there is not such a huge jump from the first assignment from the next. Not sure if this is possible given the material but if it could be done I think it would help prepare the students more.

- Not much to suggest other than get the course format down. This year's format was a new one, so at times things were a bit questionable.

- Probably tell people not to read pearls in life

- I think the system of assignment deadlines was not the most helpful. I think it would be better if the deadlines were changed to a sort of checkpoint. Each checkpoint would have a recommended completion date but students would not be penalized for not having the project completed at that point. Also, each checkpoint would consist of a set of points for different parts of the project.

- More help with Projects

- None

- Nothing comes to mind.

- assignments are good but its not possible to do them in a time line provided specially if you also have other subjects that require project submissions.

- The work load is way too much for a 3 credit course. There were too many moving parts this semester to adapt to during the assignments. Often I found myself and other students passing tests and moving on to other work, and found on updating that they failed tests that they thought they were done with. Constantly pulling and updating was time consuming and created many issues with assignments.

- Change the assignments. They take far too much time from the students schedule and most of the class doesnt finish them anyway. You just cannot expect students to start writing kernel level code with the preparation they have from their previous years of CS study at UB.

- The course slides should be made available in PDF or other formats so that they can be viewed offline too.

- Having test161 suite available sooner and clarity on a few requirements for the homework, starvation conditions, sbrk, etc.

- 1. Despite your thoughts on the matter, the work load for this course, in the form of the assignments is for the most part unreasonable. You do a good job of masking it behind your veil of: "we offer an army of people for your to go to for help". Any course which mandates office hour participation in order to succeed is fundamentally flawed. Yours is not the only class anyone is taking during the semester, and not all of your students fall into some archaic stereotype of having zero outside responsibilities. Some of us have full time jobs, families on top of our full time jobs, and let me reiterate: OTHER courses which also require more than a few hours per week of work. The only people I have witnessed being successful are those with the free time and lack of outside responsibilities allowing them to sit and pick at the cast aside crumbs (see 2.) from your staff. 2. I made it a point initially to make the couple office hours I could attend per week. I stopped shortly before ASST1 was due. TA"s and Ninjas who cannot answer questions are not worth the time. I had one TA directly tell me that he could not answer my question because he had been told that he needed to be purposely vague in his responses. If I am coming to anyone for assistance in understanding a concept, for a course I am paying for, which the department mandates I take, I do not want to waste an hour of my life and time sifting through garbled vague messages as if I inquiring as to the meaning of life at a temple in Tibet. 3. Partial credit is not a bad thing. For ASST2 my partner and I had nothing truly working, but a great deal of code which we believe was not far from what it needed to be. His schedule between other classes and work kept him from being able to make any office hours. I have already covered why I would not bother with office hours. We gained no points for ASST2, despite putting in honest work. Who knows, maybe we were just one small piece of syntax off from scoring well. 4. Was a Core Map ever actually discussed in lecture? Ever?

- The only criticism that I have for the course was that things on the testing suite were very subject to change even the night before an assignment was due. This can lead students to believing that they have the correct solution even if they do not with the updated tests. Although this is how industry works and we were the first class to use the new test161 tools, I think that it would have been better if the tests and the submission tool were completed before the course had started.

- Projects seemed unrelated at times to the lecture. Tests were extremely difficult. Lack of organization and preparedness for the projects

- Although there were many TAs and ninjas I found that getting effective assistance was not something you could expect. TAs seemed to rely on their solution code, and just try and point out a mismatch with yours. This is hardly ever what the issue was. It would be more helpful if they discussed your design and strategy with you in order to understand your problem. Many TAs did do this, just not all of them.

- One big problem I found is that even though the TA's were helpful, they unfortunately were one of the only ways for anyone in the class to understand the assignments and information given to us. I believe that on average, if you wanted to pass this class, you would have to visit the TA's regularly and I don't believe that is a fair way to get people to learn material. It is effective though, to just keep throwing TA's at the students for whatever questions the student has, but it seems like a lazy way to solve the problem of helping these students understand the material. I believe that code reading questions shouldn't count for a majority of the grade, but should be graded and improved on, as to give the students an incentive to do the code reading. Also giving good instructions that line out where to start on assignments are good to have. Idk what could solve this, this could also just be me complaining about taking this class along with 4 other CSE classes. I think im going crazy XD

- More consistency in the OS161 project from semester to semester: it seemed that even some TAs were unfamiliar for new, more difficult requirements added into the project that went above and beyond what they had to do, making it harder for them to help.

- Obviously a challenging suggestion, but allotting students working alone additional time for assignments, as opposed to omitting particular components. The entirety of OS161 can be implemented ambiguously, and the projects are cumulative. In the later assignments, running TEST161 exposes errors in previous code, and debugging/redesigning your own work is much more challenging when only one person is involved.

- instead of spending the last few weeks doing nothing, more time could have be spend going over assignment 2 , which most of the student find difficult. doing this assignment brings in its own complication, instead of fixing your own coding error, you have to fix git problems, Mips error install errors. it would be wise to make a virtual appliance a self contain environment --not vagrant . Linux has soft and hard links put all the files that have to be modify for Assignment in one folder. You can't do this course without going for help from the Staff. which is not good
- More guidance/resources for the programming assignments would be helpful. The assignment descriptions and recitations do little to help understand the assignments. There are office hours, but I'd rather just have better documentation/guidance.

For what primary reason did you enroll in this course? - Other (please specify)

- Other (please specify) Operating Systems was why I developed an interest in the field
- Other (please specify) The course was interesting and challenging
- Other (please specify) Interest
- Other (please specify) Assignments
- Other (please specify) good word of mouth
- Other (please specify) Was interested in the subject.
- Other (please specify) Interest in mastering OS concepts
- Other (please specify) to learn more about OS
- Other (please specify) I wanted to know basics of Systems
- Other (please specify) Wanted to see how it would be to take one of the best courses at UB.
- Other (please specify) I was looking for really good hands on OS course
- Other (please specify) Was interested in how operating systems work/ structured.
- Other (please specify) Out of interest and the profs reputation
- Other (please specify) Interested in the subject
- Other (please specify) Needed a 300+ CSE and heard professor was great
- Other (please specify) Interest
- Other (please specify) I like systems
- Other (please specify) Interest
- Other (please specify) It's a suicide mission.....
- Other (please specify) Interested in the course.
- Other (please specify) Required, but I also heard that the spring version was the superior course, so I took this one specifically.
- Other (please specify) Heard we would learn a lot about operating systems, word of mouth
- Other (please specify) Its a challenging course
- Other (please specify) Want to learn something about OS
- Other (please specify) I was interested in learning concepts of OS.

If you were dissatisfied with any of the instructional facilities, please explain: -

- NA.
- I was satisfied. Some more chairs at the TA area would be nice(r).
- The TA space and a lack of a proper system when meeting with the TA's during office hours
- Bigger room for TAs. Because there would be lot of students during TA hours.
- nope
- Office hours many times are overcrowded, since the assignments are impossible to complete without help from TAs and ninjas. There needs to be more space for them. Maybe reserve a classroom, at least for some of the time?
- More space needed in TA room
- No Labs available so I had to buy a laptop if I wished to get help from TAs and use office hours
- Towards the beginning of the semester it was easy to go to TA office hours and get help, but towards the end you were lucky to get a seat or ask a few questions. I was thiking maybe 338 ([A] I think, the bigger room) would be a cool spot. That way the TAs could write on the white board and it be up for when another team needs help. Its also a nice collaborative circle with a projector.
- Need more space in the TA space
- The lab space had no room for more than a coupe of people. For the amount of work required and the office hours there should be a bigger room for more people to work.
- Difficult to work and collaborate with TA staff without a laptop.
- Some of TAs were not much useful as they didn't provide help other than saying debug it. (We come to you after debugging for hours and to have another look at our code / design to see what did we miss ! we know debugging is the key to problem - we don't come to TA hours to have such answer.) But other TAs and ninjas were really good and cleared our doubts within minutes and unblocked us. That being subjective, I would say more space and more TA time should be made available.
- A bigger separate room would be nice.
- n/a
- N/A
- The teacher recommends that we work on our assignments in office hours. But the office (Davis 303) can only comfortably sit 6. At times, there are up to 4 Teaching Assistants and I've seen 15 students at office hours. This clearly did not work very well.
- course staff is available for office hours but this can be managed better. as there are long queues to meet TAs specially during assignment deadlines
- TA's given small room in which to help students individually. Bigger space needed for office hours
- Geoff had to give up his personal office in order to provide space for TAs. It was still all too cramped a lot of the time. Davis Hall may already be too small.
- We need more space for office hours, not just this class but also in general. The third floor of Davis is always a circus and all courses would benefit from more space.
- waited till the deadline was due to give out any clues Recitation

Please comment on how effective the instructor was in teaching this course. -

- The instructor was very effective in explaining the course material, but not very effective in making a connection to the practical, how the lecture pertain to the programming aspect of the course.
- He is awesome, great personality, knowledgable, and enthusiastic about the material. I believe some aspects of his class are too difficult though. Maybe I just did not prepare myself for the workload this semester, but I was under the impression a 4 credit class would reasonably take 8-12 hours of preparation outside of class per week. The required time to complete the assignments easily doubled or tripled that each week. I understand that in Geoff's mind, an insane amount of time is not a requirement to completing the assignments, but when the only undergraduate groups I know that got full points before the deadlines admitted to spending hundreds of hours on them, it may as well be a requirement. In a situation like that, it is easy to feel like your performance is not being judged by your ability to grasp the concepts expected by the course syllabus, but by your willingness and ability to spend inordinate amounts of time on a single course. However, I do understand that Geoff wants the course to be challenging and worth the effort. I can say that every hour put into this class is worth it in terms of personal growth and learning, just not everyone can afford to put in a lot of hours. Geoff was flexible in allowing late submissions, and the curve (based on the midterm grades) was generous. Overall though I feel as though students would be more receptive to learning when more manageable goals are laid out before them.
- Geoffrey Challen beyond surpasses the cumulative quality of the CSE faculty. His integration of humor within course material was profound; indicative of a humble, superior level of intelligence. I can't articulate how appreciative I am for the accessibility ease of lecture material. Some people are not fortunate enough to live the "full-time residential student" life, and it's extremely discouraging when attending to responsibilities results in falling behind/missing announcements in classes. TLDR: 10/10 would recommend would tell a friend.
- Dr. Challen (or gwa as he prefers) presented the material of the course in a way that was engaging, memorable, and funny (far more than a topic as dreadful as OS structural implementation has any right to be), which greatly helped on examinations.
- Enthusiastic and clear professor. Clearly spent time putting together course materials and designing infrastructure of course so that technical issues would not hold us back from working on assignments. His personal assistance was accurate without giving away answers.
- I felt like only smart questions should be asked, and I felt very insecure in asking dumb questions, this is a general feeling in the computer science department and I believe should be addressed. Some students who felt like they were behind, only got more behind, because of fear of scrutiny of the TA's, other students, and the Professor.
- There are 2 sides to Geoff either he is in a great mood or he is in a bad mood. I think that he is generally a really nice guy but you do not what to get on his bad side.
- He made students feel very unwelcome during office hours, he seemed hostile and rude at times to students who were struggling but nice to others who had a better understanding. I was personally scared of interacting with him due to the way he treated students during office hours.
- instructor assumes everyone has basic OS knowledge when teaching while that is not always true.
- The prof was really good. Had loads of fun.
- Very effective
- Very effective. I liked how he used anecdotes throughout the lectures.
- I found no faults in this course other than it being difficult, but in a good way.
- Geoff made me want to come to lecture because of his engaging teaching style. He is entertaining and crams tons of information into each lecture, but it is very easy to digest.
- The enthusiasm that Challen exhibited was amazing, I really felt bad when I missed every single class. I never felt bored in class. The assignments were well supported by the course staff, the opportunity to submit multiple times allowed us to experiment a lot. The 3rd assignment could've given less time for coremap and more time for other two parts. Also, the targets could've been released early so that people could've got more time to test.
- The lectures were among my favorite during my time at UB. But, the assignments were among my worst and most time consuming assignments.
- It is so hard for me...but the thing is installing os was not easy
- He is based on the slides that he made. And it is very effective! :)
- This is by far the best professor I've had at UB and really makes the course an enjoyable experience. He's super knowledgeable when it comes to course material, and you can tell he enjoys teaching it. The course is definitely hard, but his office hours are inviting and helpful, and he's always positive and funny. He's dedicated to the learning of his students as well as the entire CSE department.
- Geoff was excellent in this course. Giving me the correct balance of well presented material, well defined goals, and solid guidance when seeking help in office hours.
- The instructor presented the material in an organized, easy-to-follow, and entertaining manner.
- Good, likes to say "right" a lot but he got better at it. Enthusiastic, likes to make jokes and funny during lecture.
- He was very effective. Maybe the only thing would be to give more of a background on the assignments and more direction in doing them. Given the size of the assignments, it seemed very difficult to have to rely on the TAs for instruction on how to do them even with a plethora of office hours.
- He taught well, and made class exciting.
- He was very good in his teachings. Also, he IS cute :)
- Challen was very effective and knowledgeable in his explanation of concepts. His enthusiasm showed in every class. He truly likes to teach Operating Systems.
- I enjoyed having Geoff as a professor for this course! To me, Geoff was very effective in teaching the conceptual aspects of the course, and I enjoyed attending the lectures. There was a disconnect in the difficulty of the conceptual aspects of the course and the programming aspects. This disconnect could have been alleviated by a more directed set of assignment descriptions, as stated earlier in my evaluation. This is my only "complaint", and it stems from the amount of struggling I did on the assignments. I have heard that CSE421/521 is a little above the level of many UB students REGARDLESS of who teaches it. I think there is a systemic problem here: either the 421/521 course itself, or the way UB's curriculum up to this point has (not) prepared us for this class. Everything being said, I would completely recommend Geoff for any class. His enthusiasm, willingness to help, and the way that he makes the entire course (notes, lectures, recitations, etc.) available online show that he is dedicated to students!
- He is the best computer science teacher I have come across in my life so far!
- His enthusiasm for the topic was greatly reflected in his method of instruction; he explained topics quite thoroughly and made learning the material quite enjoyable
- Proff GWA is really good and knows his stuff. His notes and lecture slides and videos really helped me learn the subject. :)
- Unapproachable. Very knowledgable though. But expects you to already know too many things.
- He is awesome ! I loved his teaching style, I was already interested in systems and OS, have worked in device drivers before. But he provided another angle to how to design systems and tradeoffs. He is one of the best teachers I have listened to the date.
- Great professor. He's a little intimidating but that just made me use every other possible resource before going for help

- Geoff was extremely effective in this course. The arrangements for help in assignments was incredible and really helped us in the projects
- Dr. Challen was interesting, knowledgeable, and challenging.
- Would have been better if the project work was stepped through as a class and the grading was shifted to frequent assessment of the understanding of the material resolved in the project.
- He aced the course PERIOD
- He was a very good lecturer and kept the course interesting. The only bad note is I feel that more information could have been given on the projects either in lecture or recitation.
- Carefully explains material during lectures and answers student's questions, active on discourse too.
- I have no problems with this course other than having extreme difficulty with programming in c which I cannot fault the course staff for.
- Good.
- Definitely one of the best instructors at UB CSE, it seems to become harder and harder as every year it seems that the instructors are required to teach more students. Just having a professor that does stand in one spot reading off words from a 20 year old powerpoint is sufficient for me. GWA was constantly moving, asking questions, reviewed material every day and most importantly knew the subject, talked about it before he even got to the slides which made it a lot easier to pay attention.
- He was awesome
- Geoffrey was very effective at delivering material for exams but prepared us 0% for any of the assignments leaving the lackluster result to TAs in recitation.
- Ver Effective
- He is very enthusiastic in teaching the concepts which keeps the course engaging.
- GWA was good, but he can be intimidating for newbies. I wanted to seek help, but was not particularly keen due to his attitude. I went to the TAs instead.
- Awesome
- Awesome professor. Although I didn't attend many lectures , he posted videos which were priceless. Learnt a lot from his lectures and assignments.
- Very
- Geoffery was very effective in teaching the class. He presented the ideas in a way that was easy to understand while drawing interest with current applications of the material.
- Geoff is an excellent lecturer, with a clear passion for the field and determination to help students earn knowledge. It was very evident from the beginning that Geoff 'knew his shit' and that his primary goal was to instil wisdom. On top of that, he seems great at managing his course staff and continuously updating and buffing out his course for the better. Geoff clearly doesn't like to be bugged by monotony; Like any professor at a monstrously sized school, he doesn't want to address the same stupid questions over and over again. He does, however, handle being outnumbered very well and implements many systems (course staff hours, discourse, etc.) to get everyone the assistance they need. That said, he still made the effort to help and encourage individuals in need. Sure, he's abrasive, but neither a good bedside manner nor hand-holding will prepare one for a challenge or life itself. All in all, it would be a pleasure to work with him or take another course of his again.
- Very passionate about teaching - I can tell he cares a lot about the course
- Engaging lecturer
- Geoff is good at giving lectures (sometimes it's a little fast...) But I don't understand why it's necessary to berate students when approached for help. I've seen and heard this happen on multiple occasions (and from secondhand accounts). There are much more constructive ways to motivate students and help them learn the material than by putting them down for their mistakes.
- Lectures were pretty dope. They were enough to understand the higher level concepts and for written stuff, but not good enough for the coding assignments.
- Very enthusiastic and interested in the material
- Probably the best professor I'd had since my first CS teacher who gave me the passion for the field to begin with. The conversational style of the lectures works amazingly well to get across what are often somewhat abstract concepts.
- GWA was good. He loves teaching this course. I learnt quite a lot by taking CSE 521.
- Instructor Challen was not effective at teaching this course. He recommended that we did not need to get the book for the course, but then expected us to have in-depth knowledge of the course to do assignments. Instructor Challen was very condescending toward students inside and outside of class. Not very approachable. Relentlessly talked about his time at Harvard as a way to belittle students and reduce their morale. Instructor Challen was not effective at teaching this course.
- GWA is AWESOME! He puts in a lot of work into the course and expects the same from his students. He makes it awesome environment to learn in.
- Very stimulating, helped instill passion in Operating Systems
- Great lecturer. Explains concepts very well. The only drawback about the course is the unrealistic expectations of having UB students complete an assignment that is same as Harvard. We are not, and never will be Harvard students. We very likely did not receive same preparation as Harvard students have, nor have the same life circumstances as they very likely have.
- Good at teaching material, not that good at writing what should be done for projects.
- Excellent
- Very effective, the instructor ad his TAs did a lot of work with the assignments and it showed in how meticulously test cases were pushed and graded
- He is really enthusiastic about this course.
- Clear mind and interesting talk
- He taught the course really well. I liked his approach basing the entire lecture as a series of questions

Please comment on how effective the teaching assistants(s) were in helping you meet the learning outcomes of the course. -

- There are many TAs(apart from official, some extra TAs are also there) so it becomes very easy to seek help because the office hours are very frequent. Also, the TAs are very knowledgeable so they really help in completing things and solving difficulties.
- They were very good. OS161 is complicated and very few can master it but they did a good job.
- Mentioned already in previous stage. Some were really good, some were bad and have attitude. If you can't explain what's wrong with the design or understanding of student - what's the point of being a TA ? If student knows everything as some TAs expect, why they would come to you !
- TAs are good.
- Always available. AWESOME work!
- They were helpful in office hours, but recitations weren't super helpful.
- The course TAs/Ninjas were an invaluable asset throughout the entire semester. Any conceptual and/or debugging question that I asked I got enough information and insight into to solve the problems I was having after being stuck.
- Extremely, undeniably, remarkably effective. This course couldn't survive without them and their devotion to the students.
- They were great. Undergrad TAs are exceptional students, and senior TAs are very helpful.
- Good power points
- Office hours were extremely helpful for working on assignments
- The teaching assistants were extremely helpful for this class. It was nice to have such a helpful group of individuals around to help for such a difficult class.
- The TA's were very friendly and helped in any way they could.
- Certain TA's (and course staff) were extremely helpful - often going the extra mile. However, the problem is the inconsistency between course staff. For example, eventually I would stop going to everyone's office hours except for specific course staff - because of how unhelpful I (and other friends in the course) found certain staff members
- Really Effective. They know their stuff
- Ali was excellent, that first TA was no good.
- There were always opportunities to meet with TA and get help on assignments. They helped figure out how to lead you to an answer and not just fix things. They almost always answered my questions to the point where I understood.
- They were really helpful.
- Very effective..
- We need more space in TA room and some more TA
- Can deal most of the troubles we meet in assignment. Give useful thoughts/ideas instead of telling the solution directly.
- Apart from one rude ninja, other ninja's and TA's I have contacted were very helpful. I got a lot of concepts cleared and got useful hints too. The rude ninja did not want to listen to what I had to say and kept shouting on me while what I was trying to ask was entirely different and what he understood was completely different.
- Same as Geoff. Based on slides when they teach and helped us alot in office hours
- Very effective
- Since this was the first time that test161 was introduced, there were few race conditions that resulted in some minor inconsistencies, but it was not a major issue, but needs to be rectified.
- They were very helpful for the assignments. But time and space management for office hours has much scope for improvement!
- Very much.
- The recitations conducted were very helpful. Also the TA support is the best I've seen in UB so far
- They avoided answering questions asked.
- Pretty useless as they were not allowed to give us many hints
- Teaching assistants were approachable and available
- TAs WERE GREAT! they helped incredibly well on the assignment, and any other questions I had.
- EPIC, while I may fail this class I wouldn't have even tried if not for the aid of the course TAs.
- Some are helpful some are not
- Some TAs obviously were better than others. The biggest issue was the sheer mass of students at office hours and the overall lack of one on one unless you are prepared to sit at office hours for hours every day. The assignments need to be made easier to lessen the gap in knowledge in being able to do the assignments lessening the load on the TAs. This course had an insane amount of office hours available and no matter when I went it was packed leaving any chance for help low.
- The teaching assistants were helpful in answering general and assignment specific questions.
- Easily the best TA's I've ever interacted with.
- There were many TAs and many office hours which is useful and necessary for this course. Most TAs would spend as much time as was needed to fully address my problems. Some TAs relied on their solution code heavily rather than actually discussing the problem at hand. There is little reason to expect that a mismatch in our code is the way to fix our problem. Also TAs would often give contradictory advice. This is expected to some extent due to the nature of the course but sometimes it was clear that misinformation was provided.
- Tis were very helpful.
- waited until the dead line to give a clear explanation of the project.
- If the TAs hadn't been there to help, this course would have been impossible to pass!
- Challen has a team of TA's and Ninjas without whom it would have been very hard to finish the assignments at all.
- great
- The TA's were absolutely invaluable when it comes to the course; they explained things quite thoroughly and, for the most part, helped quite a good deal
- Classic group of TA's. Just trying to balance what their boss tells them and what their student body wants. Did a great job at it.
- The teaching assistants did an outstanding of helping me and my partner understand the material.
- Many of the TAs knew the material well and were very helpful when asked.
- They are required to complete this course. I don't see how anyone could complete this course, given that it isn't their only class for the semester, without the help of the TAs. I felt completely lost without them giving me the direction on where to start and where to go. Overall they were completely depended upon and did a fantastic job exceeding TA expectations.

- The teaching assistants were helpful when I seeked help with the assignments.
- First off, this course has a plethora of TA's that are active both in office hours and on the course forums. They are very good at not directly giving away answers, but helping in a way that pushes you in the right direction. While office hours could get packed at times, the TA's were very good at handling these situations and getting students to look at their problems in a way they may not have thought of before.
- The official teaching assistants generally provided very good advice for the assignments. The ninjas were hit-or-miss, unfortunately.
- they do their best job
- Special thanks to Carl, Ben, Scott and Mark! Each spend a great deal of time with me answer questions and helping debug code. They also stayed well past their time slots on some days.
- extremely important. they are the reason people pass the course.
- TA's are often able to get students "unstuck" during assignments.
- Very helpful
- Extremely. Some were more knowledgeable than others. If a ta is the only Ta in office hours, He must be trained better
- I think there is a lot of variance in the effectiveness of the TAs. Some of the TAs were great and would spend hours helping students. But there were others who would try to find issues in other places instead of answering the question at hand.
- They are not Tibetan monks. Let them off the leashes and actually help. Some students actually only come to ask for help when... they actually need help.
- Many of them, mostly effective
- very helpful, should be a class led by the TA's
- The TAs are pretty much required to both understand the material and implement what is necessary for the assignments but they are readily available to do so.
- The TAs were always either able to provide immediate support, or point you in a direction to do so.
- Ninja namedrop: Mark and Issac were the most helpful. Some I did not meet because our schedules conflicted, and others I did not bother because they used the TA hours to bring in their own homework and thwart questions to official TAs. Regarding the TA that was dismissed: Yes, code sharing was explicitly prohibited, but I did appreciate the notion of providing implementation examples (or rather, examples of what *not* to do) in the beginning of the course, as the structure of OS161 can be intimidating, and confusing to learn at first. Regarding Scott: Wow. That's a good wow. Incredibly helpful and inspiring.

(0): , (0):
Spring 2015 | Geoffrey W Challen

133	Students Enrolled
125	Students Responded
93.98%	Response Rate

Quantitative

Please rate your agreement with each of the following statements about this course:	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N	DNA	SD	M
The course was well organized.	1.6% (2)	1.6% (2)	5.6% (7)	27.2% (34)	64% (80)	125	0	0.81	4.5
The course was intellectually challenging and stimulating.	0.8% (1)	0.8% (1)	0.8% (1)	24% (30)	73.6% (92)	125	0	0.61	4.69
The work load in the course was reasonable and appropriate.	10.4% (13)	11.2% (14)	21.6% (27)	31.2% (39)	25.6% (32)	125	0	1.27	3.5
Methods of evaluating student work were fair and appropriate.	4.8% (6)	7.2% (9)	11.2% (14)	38.4% (48)	38.4% (48)	125	0	1.1	3.98
The course content (assignments, readings, lectures, etc.) helped me meet the learning expectations set forth by the instructor(s).	2.4% (3)	4% (5)	12% (15)	32.8% (41)	48.8% (61)	125	0	0.97	4.22
Overall, this was an excellent course.	1.6% (2)	4% (5)	15.2% (19)	27.2% (34)	52% (65)	125	0	0.96	4.24

	Required	Elective	Other (please specify)			N	DNA	SD	M
For what primary reason did you enroll in this course?	61.6% (77)	12% (15)	26.4% (33)			125	0	-	-

	Undergraduate Major	General Education	Graduate Program	Other educational program (e.g., Honors, Undergraduate Academies, Certificate, etc.)	This course was an elective	N	DNA	SD	M
This course is required for:	72.73% (8)	0% (0)	27.27% (3)	0% (0)	0% (0)	11	0	-	-

Please rate your satisfaction with the instructional facilities for the course:	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied	Not Applicable	N	DNA	SD	M
Classroom Space	3.2% (4)	2.4% (3)	0% (0)	23.2% (29)	70.4% (88)	0.8% (1)	125	0	0.88	4.56
Classroom Technology	1.6% (2)	2.4% (3)	0% (0)	27.2% (34)	64.8% (81)	4% (5)	125	0	0.77	4.58
Recitation Space	0.8% (1)	5.6% (7)	0% (0)	35.2% (44)	48% (60)	10.4% (13)	125	0	0.85	4.38
Lab Space	1.6% (2)	0.8% (1)	0% (0)	20.8% (26)	21.6% (27)	55.2% (69)	125	0	0.87	4.34

Please rate the course instructor according to each of the following statements:	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Not Applicable/ Don't know	N	DNA	SD	M
The instructor clearly presented what students should learn (the expected learning outcomes) for the course.	1.6% (2)	2.4% (3)	2.4% (3)	28.8% (36)	64.8% (81)	0% (0)	125	0	0.8	4.53
The instructor was enthusiastic about teaching the course.	0.8% (1)	0% (0)	0.8% (1)	10.4% (13)	87.2% (109)	0.8% (1)	125	0	0.49	4.85
The instructor made students feel welcome in seeking help/advice in or outside of class.	1.6% (2)	3.2% (4)	3.2% (4)	19.2% (24)	72% (90)	0.8% (1)	125	0	0.83	4.58
The instructor presented material clearly.	2.4% (3)	0.8% (1)	4% (5)	20.8% (26)	72% (90)	0% (0)	125	0	0.81	4.59
Overall, this was an excellent instructor.	1.6% (2)	0.8% (1)	4.8% (6)	16% (20)	75.2% (94)	1.6% (2)	125	0	0.75	4.65

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	N	DNA	SD	M
The teaching assistant(s) were effective in the recitation/lab and office hours.	6.94% (5)	0% (0)	6.94% (5)	41.67% (30)	44.44% (32)	72	0	1.05	4.17

Qualitative

Please comment on the elements of the course you found particularly effective. -

- The projects offered by Prof. Challen are really interesting and is keeping me engaged. Also, the content material presented in the slides are enough to understand the concepts, plus the Prof. takes the extra efforts to make the lectures all the more interesting. All in all, a great course!
- The help of the Ninjas, in addition to the TAs which ensured that we got the required support during office hours. Recitations which well explained the assignments. The blog by the TA which was very helpful for completing the assignments. The marathon office hours. The video lectures and many more. This is the best course that I have taken ever in my life.
- The flow of contents were really good. Moreover the lectures were very engaging and it was made sure that all the doubts from students were cleared. Moreover professor encouraged a constructive competition which I think helped everyone in some way or the other.
- Programming Assignments Awesome Experience.
- The website is quite well put together, has all of the lecture slides up there for review.
- Assignments were the highlight. Learning by practically implementing the ideas learnt in the class. Being a graduate student most of the concepts were not new to me, however, I never implemented those concepts in my undergraduate degree.
- The projects are very effective. The slides posted as a webpage is easy to read and the summary (Table of contents) to the right of each slide page is good. The projects are challenging and with the help provided by the staff, it is a very good learning experience.
- Assignments teach us a lot.
- With the autograder in place, we get several chances at improving our points on the assignments .This makes it a great experience for us to learn from our mistakes and see the difference each thing makes! Sufficient concepts are covered in class and course staff offer great support. Overall, a very intellectually satisfying and rewarding course. Not to forget mentioning that students inevidently become great fans of Geoff!
- The assignments.
- The projects. They were well organized, well specified, and the always available online auto-grader made life so much better. Also, the last quarter of the course, dealing with reading research papers was great.
- The lectures were very much provocative and the assignments were challenging which together induced an interest in the field of systems programming.
- The TA and ninjas are excellent. The lectures are fun and interesting.
- Assignments
- The project assignments were quite challenging. They related to the course content directly and were thus really helpful in understanding various course concepts.
- In this course i learned how abstract ideas translated to multitude of design and implementation alternatives in field of operating system whose fruit we are enjoying today and had a chance to work on programming assignments which allowed me to test some of these ideas and play with them.
- Assignments of the course help in leaning a lot.
- The projects were extremely exciting and pushed our limits further.
- The course was though challenging it was all enjoyable and a major reason for this was the assignments.
- Amazing course. You will start loving systems programming after taking this course.
- I loved this course. The projects were just amazing. The teaching even better.
- Solid Assignments. This is the best part about the course. I have learnt so much over the last 3 months
- The ASSTs were very effective in making us learn C and letting us figure out how to code an operating system. They were challenging, but once completed it was a rewarding experience. The professor's enthusiasm for the course material was also helpful since otherwise the lectures would probably be quite dull.
- .
- The programming assignments helped me learn A LOT. The discussions in class and the questions the professor poses makes you really think about the choices, the design decisions taken, the trade offs made, during system design. Also, toward the end, the professor assigns academic papers for us to read. The course helps to align yourself to the way of thinking in the industry and in research.
- Too hard.
- The assignments were very effective in applying practically the things that we learnt in the class.
- Learning the theory Programming Assignments
- 1. Course website - Properly organized and timely updating of slides and videos 2. Piazza discussions 3. TAs & Ninjas - very friendly, helpful and importantly patient to answer our dumb doubts 4. Exams - Questions are thought provoking
- programming assignments, teaching, website
- The TAs and Ninjas were great. The projects were challenging.
- Projects, Faculty and Staff are very proactive and supportive.
- All the lectures and materials were top notch. Lot of help available from Ninjas n TAs. Video recording all the classes was also very helpful.
- Code reading, recitation videos and teaching staff were highly effective
- TA office hour,video
- Assignments are the hardest part, but they are the most useful part. I corrected most of my misconceptions while doing the assignments.
- The assignments are very effective in helping you get hands on experience. Plus covering popular papers in the systems domain, in addition to the legacy course structure gives us a peek into the current trend.
- The professor is very capable of teaching the concepts and ideas necessary to do the assignments. I felt the course grading was hard but as a student we leave with a better understanding. It is just unfortunate that the only current way to motivate students to learn is the threat of a poor grade.
- The assignments were excellent first hand experience of the concepts learned in class. Structure of the course covered end to end basics of Operating Systems
- TA hours/ Assignments/ Lectures
- The lecture slides an taping videos was very useful.
- Extremely well organized, nicely laid out website and auto grader with (almost) instant feedback on your score, many teacher assistants and ninjas, 16 office hours every week, all extremely helpful
- Having the lectures recorded and the slides put up allowed me to study a lot better. Also, there were many resources available to me. However, I still bombed the midterm, after trying my best... I guess that's my fault though.
- Recording of lectures and presentation availability was helpful.

- The project based on OS161 was great and helped me learn a lot. Also the excellent support system with TAs and Ninjas was awesome. The project is hard and couldn't have been done without the support system.
- Lecture videos
- -Great Professor -Good course structure
- Lectures were helpful/
- I loved the professor's lectures and lecturing style, and the amount and availability of the TAs/ninjas proved invaluable.
- The assignments were fairly challenging, which gives us room to learn.
- Online Grading. Infinite attempts.
- It is very informative
- I especially liked the class website, it had all of the relevant material for the course in one, easily-accessible place. Lectures were interesting, and it was nice that they were all taped and provided on YouTube. Assignments were challenging but interesting.
- I felt like the Lectures were only focusing on the Theory part of the course while in the Assignments we were expected to somehow implement whatever vague theory we learned in lecture. For people who had no outside Linux coding experience, this course was a nightmare as far as I know.
- Challenging but rewarding made it feel like it was worth putting in the time.
- The programming portions of the assignment are graded automatically and we can submit them as often as we like, using the autograder output to improve oursubmission.
- The surplus amount of T.A. and ninja (helpers) office hours were extremely helpful.
- Tough assignments with lots of help provided to help the students complete them.
- The assignment auto-grader, piazza, and online lecture are useful.
- The course was hard. Trial by fire, baby. But I learned a hell of a lot.
- None.
- The assignments were most undoubtedly the most effective learning tool in this class. Struggling through these assignments not only improved my implementation skills, but helped me get a grasp on the basic OS concepts which are emphasized in this class. (Indeed, this includes the code reading questions part of each assignment as well.)
- The lectures were good and helped to give a high-level explanation of some of the concepts I was may have been a little fuzzy on, and when I wanted to learn how they might be implemented it was nice to have the code available to look through. As a commuter student I also appreciate the lecture and recitation notes being posted online. Although lecture was usually both interesting and entertaining, it's not always easy to attend them all. I thought the assignments in particular were an extremely good introduction to operating systems internals. Despite having several years experience in C/C++ programming coming into this course, I had never really needed to use a debugger before. I didn't find the programming for the assignments particularly difficult, but debugging was another story. I soon discovered that completing the assignments without using GDB would be very difficult, and the time I spent learning how to use GDB was well worth it. I also did not have much experience with *nix-esque operating systems, so having the chance to work with one that's so well organized, documented and written at such a low level was very interesting and rewarding. It was very interesting to see and even implement some of the abstractions provided to applications programmers on a lower level. I can understand why a lot of people would find this course challenging, but I'm convinced now after working through it myself that it's probably the most valuable course a new programmer can take. Piazza also turned out to be very helpful and I'm glad it was available and that the course staff/ninjas answered the questions so quickly and thoroughly. Also the autograder was great, I wish all of my classes had something like that.
- Lectures were well organized.
- The amount of TA's/ninjas was very helpful and the course was very well organized thanks a lot to the course website.
- Office hours are really helpfull with our projects
- Even though I went to class most days, it was still beneficial to have the lectures posted.
- The implementation of the Operating System functionality really forces the students to understand the functionality of the OS system calls.
- The course was well organized. The assignments were challenging but interesting. The TAs were knowledgable and effective. Lecture is by far the most interesting and helpful CSE lecture I've had so far.
- All but nothing.
- good stuff
- Assignments and TAs.
- The "Learning by doing" approach was particularly beneficial to me.
- The timing scheme for assignment due dates seemed very effective.
- Jing hao blog
- Operating system was great to know how program and process working it was great class.
- The online lectures were a great way to duplicate what we learned in class.
- The lectures and recordings of the lectures were extremely helpful. The amount of office hours were helpful as well.
- By not giving us direct code help and instead leading us in the right direction, I was able to learn a lot more then I normally would in another class. The taped lectures helped a lot. Also, Geoff is an awesome teacher.
- The first few assignments were fun, but having no previous programming experience in C I struggled with the later assignments.
- I found the large number of of office hours helpful. I also liked the discussions on papers and other real world examples to get a better understanding of why the topics we discuss are still relevant. Having videos and lecture notes available online was also very useful.
- Professor Challen is a great lecturer and I have learned a lot from going to class. I particularly am grateful for the fact that he would occasionally mention ideas that are frequently brought up in job interviews.
- The lecture videos are good.
- The online lectures posted were quite informative.
- I loved the assignment! ... For many of us (especially those who have not interned anywhere big) this was the first time working with a large code base. At first it was scary. But once you started to understand how things fit together it was an amazing feeling.
- Effective lecturing Recorded lectures Ambitious projects
- The content of the course was effective at teaching the required competencies.
- This shit is stupid hard. Which is unfortunate because its probably the course you can learn the most from.

- The extensive office hours.
- I've probably learned more doing these assignments than in any other course combined. The recitations are very helpful for doing the assignments. The class is extremely well organized, and the online videos are a great resource.
- The lectures gave me a good basis of the knowledge for the course and the assignments expanded and solidified the material
- Assignment were tough but fair, grading was fair and based on good metrics, one of the best CS classes at UB, although it is very tough
- The best part about this course was the abundance of help available from having a large number of office hours every week, with the TA's and ninjas both being very helpful. The programming assignments are excellent and I especially like the auto grading and unlimited submissions. It is also clear that Geoff is passionate about the material which goes a long way towards keeping students interested.
- The course sure put a whole new level of challenge to my major and basically threw everything that I have learned about Java and C++ with all these "useful" data structures out the window.
- Assignments
- Lectures available online for rewatching outside of the classroom. Assignment questions and write up is useful.
- The programming itself was very instructive. I learned most from what I implemented.
- Video recordings were super helpful to be able to refer to while ill, and I'm really glad he got lecture slides up as well.
- The project was incredibly helpful, if also frustrating
- Lectures and readings.
- Geoff is a fantastic professor - makes it interesting, and the interaction online was superb.
- I believe when it comes to learning nothing beats personal experience. The projects in this course has taught so much about the functionality of a operating system and as a bonus, got me a lot more comfortable with C.
- Programming Assignments, Office Hours, Video Lecture

Please comment on course improvements you would suggest. -

- Make programming more of the grade.
- Nothing major. If I had to think of one, maybe splitting up the assignments in to several smaller ones? the professor did advise us to start earlier, so I have no excuse but I did end up underestimating the time required for assignment 2.
- Perhaps some way of making the lectures more relevant to the (very difficult) assignments.
- N/A
- I would suggest more time in ASST2, I found myself really struggling to get that done in time.
- More resources for programming assignments.
- I think lectures and assignments should be more connected...
- Assignments are very frustrating to do with a partner, especially if the work doesn't end up getting split evenly. Make the assignments for individual students instead of doing group assignments.
- The midterm was brutal. I studied for weeks on end only to be "rewarded" with a lower score than expected. Some of the questions were elaborate enough to be long answers than short ones and therefore, I ran out of time. This is the hardest course I have ever taken. I did not enjoy this at all!!!!!
- I would suggest that Geoff reconsider the steepness of the penalty for the ASST2 solution. I think that with the current penalty there is basically little to no incentive for students who didn't come close to finishing ASST2 before the deadline to even attempt ASST3, which in my opinion is an obvious shortcoming with regards for the learning objectives for the course. I know several students who gave ASST2 a good honest effort but still didn't come very close to finishing it. What I have observed is that these students continue to work on ASST2 during the time that they really need to be working on ASST3 in order to have any hope of finishing it, and eventually come to the realization that they have no chance to finish ASST3, and just give up pouring their time into an assignment that they are no longer even getting any points for. This is, frankly, just a bad situation. I understand the rationale for the steep penalty, but I am fairly confident that with a more reasonable penalty, say 20 points, a non-negligible number of students would give ASST3 a crack who otherwise would not have, which in my opinion should trump any arguments in favor of the currently massive penalty.
- The midterm was obviously a trainwreck, but aside from that, the idea of open ended long answer questions attached to keyword-style rubrics doesn't mesh well. The papers given at the end of the course for reading are interesting, but I feel it would be better if these were more spread out throughout the length of the course, as giving many papers that can take a couple hours to fully appreciate, on top of the assignment that is active alongside it, during the crunch weeks of the semester... it can certainly be overwhelming.
- More time for assignments.
- Thing is I don't even know. The course work for the class is just hard. The teacher offers plenty, and i mean, plenty of assistance.
- The workload of this course was unreasonable.
- Some information needed to complete projects was difficult find. Project specification page could have more info.
- It sucks that the class moves so far ahead of the assignments. While working on assignment 2 we were already done with memory and the stuff for assignment 3. Also, many of us depended on the TAs and ninjas for that extra bit of help. A lot of the times they would not show up. Or only one would show up and there would be 20+ students. If they are scheduled on the calendar then they should show up! It was very frustrating.
- The assignments could be given a little more time to complete as well as more information as to how each assignment can be undertaken and completed.
- I would suggest the instructor to use a mic in a classroom of this size. It's not very hard to hear him but videos are much better.
- The first exam was immensely difficult (class average: 39%), but Professor Challen apologized for making it so difficult and promised that the final wouldn't be anywhere near as brutal, so in that regard, he recognized that he had to improve mid-semester and hopefully will make the adjustment for the final exam. I would like to comment extensively on the assignments. I admit that there is some senioritis on my end, but the projects were very difficult, and I admittedly did not get very far on the third assignment's implementation and flat-out did not do any of the final assignment's implementation at all, instead choosing to focus my time on studying the lecture material for the final exam. I figured that in the interest of time, with everything else I had going on, to focus all my efforts on something worth 25% of my overall grade instead of on something worth 9% and which would take up all my time. Another complication for me was the loss of my partner before the two "big" assignments. I do not mean to imply that my partner would have done all the work, as I firmly believe in pulling my own weight, but it would have been immensely helpful to have someone to collaborate on ideas with for the tough assignments. As such, I felt incredibly lost for a good part of the semester, even though I knew I wasn't responsible for the completing the assignments "fully" like those who worked in pairs. I received help from the TAs/"ninjas", but I still felt really lost. Knowing what I know now, I think it would've been better for me to either: take the class over the summer so that I could have focused on it without worrying about other classes, or tried harder to find another partner in the short window between when he dropped the class and when the first "big" assignment started (I don't blame him at all; he didn't need the class to graduate). So for improvements, I suppose it would be beneficial for the professor to either talk more in lectures about the assignments, instead of just on the overarching concepts, or modify the assignments to not be as time-consuming. Additionally, I personally would make it mandatory for everyone to have a partner (not sure how to do that if there's an odd number of students, though).
- Edit: I thought about it more, and I feel that one area that this class is really lacking in is the design documents. In their current form, they are largely useless since we receive no meaningful feedback on them. I suppose that it's inevitable with the current size of the class. One possible solution I was thinking of is that maybe you could have some sort of peer reviews on the design documents. That way, the students could evaluate each other and possibly get new ideas on how to handle the problem. I don't really know if it's feasible or how risky it would be regarding plagiarism, but it's just a suggestion. I think there should be a design segment though since planning before programming is important.
- Maybe make CSE321 a requirement for taking this course.
- I felt like I spent all of this semester focusing on this class and neglecting others.
- Easier assignments or a better explanation on what we have to do for the assignments.
- Way too much work
- Nothing, I mean this class is perfect for students
- less ambiguity in coding assignments
- It is far far too easy to cheat on the code reading questions. Students could create dummy accounts on ops-class.org and then submit the code reading questions under the dummy account just to obtain the answers. Also, students can just look at the answers after a fellow group has submitted the answers. There are too many ways to easily cheat points on the code reading questions. This is an even greater problem because the code reading questions are worth such a significant portion of the total assignment grade. I think that the answers to the questions shouldn't be given until after the assignment is due. Another option would be to keep the system like it is, but make the code reading questions worth less. Another change that I would suggest would be to split up the code reading questions and design doc due

dates. I think that the planning time that went into my group's design doc suffered because we had only 1 week to complete it along with the code reading questions. The implementation due dates worked out really well though! I felt like I had just the right amount of time for each of the assignment implementations.

- There was not a course text, which was fine. However, there was recommended reading material. It might be helpful to sometimes highlight what sections of the recommended text would be useful with respect to our current assignment.
- Exam was extremely difficult.
- Professor is very zealous. Maybe too much at times.
- Nothing.
- It is possible to get a passing grade without completing a large part of implementation.
- I would have liked if we could have discussed parts about the assignments in class.
- too much work load that makes me didn't even want to start
- Better split the project into some small part, also the due days. it will helpful for us to complete it step by steps.
- The projects were pretty difficult and the midterm seemed to be much more difficult than the years passed.
- Assignments were almost impossible to complete.
- No real complaints worth mentioning; I thought this was an excellent course. I do wish there was an option to work alone, though.
- For assignments 1-2, I utilized Kernel Development by Robert Love which was extremely helpful compared to the assigned text for this course. Additionally, I made a mistake going into this course without securing a qualified partner before hand. I ended up doing the most work my self (our current repository has 200 total commits; 10 of them are from my partner.) It would be great if you could implement a mechanism to: (1) prevent a slacking partner from getting a grade that the other partner earned; (2) and/or a way to terminate the partnership. I honestly would have done so much better in this class grade wise had I just chose to work alone from the beginning, or had the foresight to find a reliable partner before registering for the course.
- Ridiculous workload, often expecting students to commit up to 30 hours a week to the class. As a reward for doing well, the professor offered to be our friend on Facebook... he is an insufferable douche. I've never met anyone as arrogant or into himself as this guy.
- The midterm was too long for the time provided.
- This is an introduction course but I felt like there was way too much material that we had to rush through slides. I cannot soak in 25+ slides of knowledge in less than 1hr, especially with no prior experience in OS. It would have helped me a LOT more if we could have been able to remain on each slide longer so that I could get a good understanding of that slide's material. I understand we are supposed to read a lot outside of class but I also have other classes that I need to read for.
- There is some grading mistake in Code Reading questions, but we can't get points back.
- The code reading / design doc should not be worth the same amount as the assignments when we have 1/3rd as much time to do them.
- Please in the future kindly make sure in the lectures the implementation is actually demonstrated. I pretty much learned nothing from this course and 2 people I know who were doing pretty well actually dropped out of the CS major because that's how lost they felt with this course. I understand we're not supposed to get spoon-fed but at the same time the difficulty level of this course and the vagueness discouraged a lot of people that I know of and made them feel utterly incompetent. May not have anything to do with the Professor, may just be the way the course is designed.
- At times I felt a little lost during assignments, like I didn't know where or how to start. Perhaps in the future you could give a little more of a push for students starting the assignments.
- A teeny bit more spoon feeding for students amateur at C.
- Maybe shorten the material/assignments. Considering this is a 400-level course, most students would be taking other 400-level courses. Sometimes deadlines could be stressful for some. Exams were a bit too tough.
- I personally thought the course was too hard. CSE 421 was easily the most difficult course I've ever taken - furthermore, this current semester was the most trying semester I've ever had, despite taking only three courses, entirely on merit of this one. I personally felt that there was not enough direction in assignments - while I understand that the point of this was to mirror the 'real world' in a way, so to speak, I wasn't prepared for this at all. The course assumed I knew much more about C code and terminal use than I actually did at the outset (knowing C really should have been a prereq of this course), and the lectures dealt purely with theory instead of helping at all with implementation. I personally would have preferred more, smaller assignments than having two enormous ones (asst2 and 3); their sheer size and scope made it difficult to find a solid place to start and keep track of all the things that needed doing. Lack of clarity/direction also hurt my time management for these projects simply because I couldn't figure out everything that needed to be done in the outset; reading the problem description rarely gave me a good idea of what I was trying to do. I personally don't think I should have had to rely on a supplemental blog to have any idea of what I was supposed to do - that sort of thing should have been on OPS-CLASS.org. It is, however, worth noting that I was essentially working alone, and didn't get the support/idea-bouncing that comes with a partner (I had one early on, but she was even more confused than me, didn't want to do work, and I ended up working alone at the end of ASST2 when she gave up trying at all.) If I'd had a different partner, I might have had a better - and closer to the intended - experience with the assignments, because somebody to share ideas with and fill in gaps in my understanding would have been incredibly helpful. As it was, my coding process really consisted of 'consult blog, code, troubleshoot, jot down problems I can't solve, continue coding something else until I hit an absolute standstill, visit office hours to ask about problems, repeat', and was not effective at all. The end of the course really threw me for a loop. Supplemental papers are fine, and I'm not asking they be removed because they really do give a great scope of the field and applications of the things we learned in lecture, but having the 'threat' of having them appear on the final exam turned me into more of a gibbering mess where this class was concerned than I'd already been (and that is an accomplishment). Essentially, I and any other average student can only hold so much information at once, and suddenly there was -way too much- information. I personally would have gotten more out of the papers if I hadn't felt so pressured - because past experience with the midterm showed that I needed to both fully understand and know examples of concepts instead of just having a passing knowledge/conceptual understanding of what they were (i.e., I can't scrape by with knowing what an exokernel is and how it differs from microkernels and monolithic kernels; the test is going to ask me something like how to implement a library operating system. I can get the former level of understanding out of every paper - I definitely cannot get the latter amount of understanding out of ever paper), I read the papers frantically trying to /memorize everything/ instead of taking them for what they were and going 'huh, that's a cool concept' or 'that's a good idea and I should remember it next time I start a project'. I had to apply the same deranged policy to all of the papers because I didn't know which/how many would end up being relevant on the exam, and because the long-answer questions are so make-or-break (and I am very sure that this is long-answer material). It's also distracting me from studying/cementing/remembering the earlier material of the course, which I really need to go over. I write this before the final exam, but I -know- this is going to end badly on my part - I'm very sure the end result of 'understand and memorize everything' is going to be 'understand and memorize nothing' with this much information, but casual reading isn't going to be enough to survive the final exam either. It's either this, or only study the core information of this course and just give up whatever questions relate to the course reading. I just don't know how to deal with this. I'm sorry if this sounds whiny or like I'm expecting to be babied... I really don't consider myself a stupid person, and this was the first course to ever bring me to tears (which it did multiple times). I never felt properly prepared for what I was trying to do. While I understand that this is meant to be a hard course, and curves exist for a reason, I feel like a class where

everyone passes simply on merit of the curve is sort of failing the point of being a class - to impart an education. Certainly this course was interesting, and I very much liked the instructor, but the assignments were far too difficult. The lecture material itself was well-paced and of what I'd consider an average difficulty, but they didn't do very much to alleviate the haze of confusion surrounding the assignments.

- Assignments need better guiding besides just recitations.
- -More detail in slides -More examples of that explain the concepts -More help on the projects/codebase
- The group project is unreasonable for people who have to work 40hours to pay tuition and have a pattern that won't write a single line of code. I am probably going to fail this course because I got buried under doing the project alone. There should be a system in place that allows people with bad partners to have some kind of lifeline rather than some crazy policy where admitting to not doing 50/50 with partner results in an automatic F for an academic integrity violation. Fuck that policy, seriously.
- I feel this is a perfectly balanced course as it stands now.
- Less disconnect between lecture and assignments, more guidance through examples and course material to reinforce assignment goals, smaller assigned readings for the end of semester material.
- This course was the only course I've ever taken that made me temporarily feel that all of my efforts would be inadequate because I don't have the ability. The assignments and midterm were harder than anything I've done before.
- Perfect the way it is, more professors in UB should be like him.
- Take a little bit of the workload away.
- None as such. May be some reading materials might let us gel well with the lectures
- Considering that the assignments are time consuming, possibly more checkpoints might help students plan out the asignments with respect to other courses during the semester. For example, instead of having one and a half months for implementing assignment 3, it would have been benificial if there was an interim submission which included everything upto swapping. This is not a shortcoming of the course in itself but just a method that might help students like me context switch between multiple heavy courses effeciently.
- I feel the questions and design documents for the assignments are meant to encourage students to read the code and understand what is needed for the actual implementation. To me these were inadequate. We did the questions and went on to do the design document, but for the most part were not as involved as I think we should have been. For example in assignment 2 we were caught off guard when we had to alter run program. It would be better if there was a guideline for the design document to motivate students to look far ahead and be able to plan for new functions they need to implement. This is more of a pure suggestion but perhaps it would be easier if the projects were divided into parts and due accordingly. So instead of 3 projects there would be 6 halves each having parts due to make it easier to manage time since 4 weeks seems like a lot but 2 weeks feels more pressing.
- Something more on Virtualization in addition to papers. Maybe a short assignment.
- none
- more hint on homework
- More interactive questions/sessions on design would be helpful.
- Some more discussion about projects in class could help provide more clarity in theory perspective as well.
- Prof Geoff need to be student friendly. I feel hesitant to contact him. The usage of more pictures in the slide will give better understanding.
- exams can improve
- Nothing much. It is already too good and keep doing the same good work.
- Using the mic in the class. In NSC , sound is not audible even if we sit at the front
- There can be at least one individual assignment rather than a group assignment.
- Too hard.
- The midterm exams could have been easier. Although it was fair, it was really lengthy for a midterm.
- .
- I, along with most people I would guess, would suggest giving a little more direction for the ASSTs. The ninjas were great, better then the TAs I think, but there are only so many times to contact them. Piazza solves this somewhat, but it is still the case that we are dumped into the middle of these projects and basically told "do it". The blog is the only saving grace here, and I wish Geoff would make something like it for the students. Since there is no special section for the TAs, I'll put them here. All of the ninjas were great. Better than the TAs I think. The TAs, in my opinion weren't nearly as helpful in person, especially Guru. He often talked down to us as if we were stupid for doing things certain way, even though this is the first time most of us are doing anything like this. I found him to be very arrogant. He is without a doubt very intelligent, and has the capability to help us, which he does. But I always walk away feeling very stupid because his "help" usually ended up being him telling me what I did was obviously wrong, and then either giving some vague hint about what to do, or if it was actually close, he would tell us how to fix it. In which case, it wasn't completely wrong, so would have appreciated if he didn't open with that. I understand that he is smarter then me, but in my opinion, a little humility would be greatly appreciated. I never interacted with Zihe much, and Jinghao was great, especially during recitations and his blog was invaluable.
- Nothing. The course is perfect!
- The coding assignments can be provided with a little more formal documentation about direction and content.
- Flawless coursework. I dont think one can expect anything more
- The assignments are well handled and covered with ample amount of timing. Code reading and design phase was a major plus. Improvements could be, the design evaluation should be done quickly so that we could realize if we did anything wrong
- But the sad part is, there was not much help offered both in Piazza as well as in TA hours for project-3(VM). Though TA's tried their best, they weren't able to show us what we are doing wrong and so we had to figure out ourselves. And this took us long time though the change was very trivial.
- Best course till now in my graduation.
- a little more detail on specifics of particular topic will certainly help get more in-depth insight into subjuct.
- The project deadline policy keeps changing every year. Hope the the policy adopted this year does not continue the next year. The strict deadline for assignment submission is restricting in some sense and adds undue pressure. If we could only have deadlines for code reading questions and design documents, they also it would fulfill the purpose of getting students to start the assignments on time.
- The part of the lectures that required us to read the research papers. It is difficult to read so many of them in a short period of time and get the maximum out of it.
- Maybe A2 needs some more time like A3.
- Can't think of anything...
- Some of the questions asked in the exams and code reading part of the assignments are ambiguous. There can be multiple answers for such questions, which are not accepted.

- Its perfect the way it is!
- Go more slowly at the start of the course.
- The assignments, course description and even slides are all designed in such a way that when you read it, you get the feel that the staff is explaining them to you orally. Though it's good, we have to read a huge paragraph to obtain small information. Instead I would prefer them to be concise and to the point. It's a small suggestion, other than this the course is super cool. Thanks GWA and course staff!
- A bit more "help" for the assignments (lost quite a bit of points on code reading questions because of the open-ended nature of the topic)
- I hope the mideterm to be a bit less difficult. It was difficult.
- Sometimes the professor gets into long sentences and that too in a reduced voice which makes it very difficult to understand.
- The exams were a bit hard. Sometimes I have felt that if a TA/Ninja is helping a particular person, when that person is compiling/testing the TA/Ninja should help somebody else rather than waiting for that person to finish.
- Maybe some sample problems to be solved on your own would be helpful, although this is not a necessity. I would not like them to be ungraded because I would not like to add to the assignments already designed by the Professor, which although interesting, are somewhat difficult and takes time.

For what primary reason did you enroll in this course? - Other (please specify)

- Other (please specify) Because its Operating Systems. Plus super feedback from seniors about Prof. Chaallen
- Other (please specify) I heard from my seniors that this is an excellent course so I didnt want to miss.
- Other (please specify) Interest in the course
- Other (please specify) Interest and because Geoffery Challen
- Other (please specify) Mainly for learning details of Virtual Memory
- Other (please specify) How can I miss the Harvard experience.
- Other (please specify) Learn systems programming
- Other (please specify) Curiosity
- Other (please specify) Interest
- Other (please specify) Heard great things about the course and the professor.
- Other (please specify) Wanted to learn about OS
- Other (please specify) Interesting Course
- Other (please specify) Interest
- Other (please specify) i like challenges
- Other (please specify) Challenging
- Other (please specify) Wanted to learn more on OS
- Other (please specify) Challenging course with good encouragement and rewards
- Other (please specify) Interest
- Other (please specify) I heard a lot about the professor and the course structure.
- Other (please specify) Out of Interest
- Other (please specify) Professor and interest in the course
- Other (please specify) Interested me
- Other (please specify) Interest and important for my area of interest
- Other (please specify) the professor
- Other (please specify) Interested in OS
- Other (please specify) Intrest
- Other (please specify) An engineer is incomplete without the knowledge of Operating Systems
- Other (please specify) Interest
- Other (please specify) Interest in the subject
- Other (please specify) Interest
- Other (please specify) It was required, but I wanted to take the "Challen Challenge"
- Other (please specify) I heard it was an enjoyable class
- Other (please specify) Required but I wanted Geoff as my professor.

If you were dissatisfied with any of the instructional facilities, please explain: -

- The acoustics in NSC lecture halls suck. Hoch 114 or Cooke 121 like in the previous years would have been MUCH better.

Please comment on how effective the instructor was in teaching this course. -

- He presents the lectures clearly and answers questions both in lecture and on Piazza. But, the results of exam #1 are indeed concerning...
- Geoffrey was great; always very friendly and approachable. I've heard people say that the lectures should cover more about implementation details, but the recitations covered most of that and teaching new programmers how to design and implement these sorts of systems themselves is probably the most valuable part of the course. Overall the lectures were interesting and engaging and the course was well laid out.
- One of the best professors I've had!
- He sucks.
- Again, Lectures are well done but his methods need some adjusting mainly how brutal his assignments are.
- His lectures were very enjoyable compared to most CS professors I have had. He is very engaging and really wants the students to succeed.
- He is passion, also clearing answer the question real well. But sometimes, I really dont understand what he said.
- Geoff was enthusiastic and made sure we had plenty of resources for learning outside of class time.
- I would venture to say that Professor Challen was the most effective instructor I have had to this date. Very engaging, and passionate about the material being presented.
- Yo
- Dr.Clallen, I love your class and I hope I can get an A after this semester.
- Geoff explained the concepts in a concise and clear fashion with great enthusiasm.
- Geoff is extremely effective. It's a great course!
- very effective
- Very effective.
- Very effective
- He presented material in a concise manner, an was enthusiastic during class. He expected a little bit too much from the students however.
- He is very helpful and chooses his TAs and Ninjas carefully, expectations are clear and you have access to every bit of information online through the website.
- Great man. Course is too hard though.
- Teaching style was effective if only a bit asynchronous in skimming over many aspects of the presentation on the projector. Pace was an issue at times with long drawn out periods spent on some sections, and a complete fly by of other sections.
- Awesome
- Great Professor. Went over concepts well however. Felt rushed at times when he skimmed over some stuff.
- He was okay, but expected a bit too much from us.
- Great guy. Very friendly, helpful, and approachable. Never made me feel like an idiot despite how utterly lost I was in the course.
- Fairly effective.
- Excellent! I have nothing against him.
- video lecture will allow the student revise better for exam
- Professor Challen was fantastic all semester. Very engaging lectures and welcoming to students who ask help at office hours.
- He seemed very helpful and an all around good professor who cared about his students. But it didn't help me or most other people I know at all. Strongly suggest changing the structure/work-load of the course and actually do some implementations/examples in class.
- He is nice and make things very interesting.
- The energy and presentation were good, I just wish he would have slowed down. The rushed pace of learning new material is one of those things were most students will learn it temporarily then forget it over break.
- Great professor! Brings lots of energy and passion for the material. Very friendly and approachable.
- Geoff is the coolest professor I have seen in UB. He knows how to put concepts across so that they are much more interesting than they might actually be if read outside of the classroom.
- Very effective.
- Very good at teaching what was on the slides. Would appreciate more links to projects during the lecture.
- Very effective.
- funny, teaching us lots of aspects of os
- of course, Geoff is one of the best at UB
- One of the best in UB!!
- The instructor was highly effective with a good reward system.
- Geoffrey is an excellent teacher. I love the lectures, presentation is very clear organised and easy to follow. Course material is very thoughtfully organised. The website, resources such as lecture videos, practice problems all are very helpful to students, The midterm was a bit too hard. I was harder than I had expected and previous years. Overall the course is very interesting and effective. Glad I took this course, It has been a great learning experience.
- very good teaching skills
- Thank you for being such a passionate and engaging Professor! I think the deadlines during this semester have been very appropriate.
- Amazing prof
- He is a very passionate teacher and takes pleasure in teaching to his students. One of the best professor I've ever had.
- Geoff is a great guy. He appears very passionate about the subject and that makes the students, or at least me, want to learn it.The lectures are never boring which great. He knows the material extremely well and is well read in the research of this field. However, I for one would say that he is a bit intimidating to seek out outside of class. He is seems like an approachable kind of guy, but whenever I see him outside of class he often seems very annoyed, as if our questions are wasting his time. It's clear to me that he is smarter then at least the majority of students in the class, especially myself, but it sometimes appears that he isn't aware of this knowledge gap and unintentionally patronizes us when we have a problem that he can fix in 10 seconds even though we have been stuck on it for days. The few times my partner and I have received help from him, I was left feeling quite stupid in his wake since he kind of laughed off our problem as something simple and chastised my partner for not figuring it out. I can't say too much about how his help outside of class was though since I had another class during his office hours so I could never go to them. That is another suggestion, if he could maybe have more then one block of office hours. It doesn't have to be two hours each time, maybe just an hour on one day and another hour on another. I would have liked to go to his office hours sometimes, but I never had the chance since he only had one block. The ASSTs are difficult, and he

knows it, which is nice, but a little more direction from him, akin to the TA's blog, would have been very much appreciated. As it stands now, he basically tells us to go do the ASSTs without much else. The midterm was also very difficult, but he already knows that. He could also loosen up a bit about his test policies. Especially the exact 50 minute time limit. Some people take longer to take tests and pressuring them just makes them do worse. Also, because of this, we don't actually get 50 minutes for the test, since we need to walk down and get in line to hand in the test before the 50 minute mark. This line can get kind of long. I've never had another teacher as exceptionally paranoid and picky about tests.

- .
- He put his thoughts across very clearly. (Although his speech could be really fast at times, and (sometimes) muffled). He knows his stuff and did a very good job teaching this course.
- Too hard.
- GWA has designed an amazing course. Best part about it is that all assignments are auto graded and released way ahead of time. This prevents any delays from the part of the teaching staff and hands over the onus on the students to work on them. Definitely my favorite professor and favorite course at UB.
- He was amazing. I loved his enthusiasm the best course I have taken so far.
- The instructor tends to lower his voice when finishing off a sentence. It would be great if that is avoided.
- The primary reason for many to choose the course was Geff. Nonetheless it was a good decision to be made as he is a very enthuastic professor clearly transferring knowledge to the students with a well structured course.
- I guess if you were a little less strict and disciplined about the stuff, it would be better.
- Hardest course I ever took. Not because the materials are hard, but there are not enough support to complete the assignment. I know there are many helpful TAs and Ninjas, but there are too many details we have to figure out. Recitations only give a big picture of the assignment, no details are provided.
- Best lecturer in UB computer science department
- he is excellent at what he does and goes out of his way to help students achieve excellence.
- The instructor is quite effective in teaching the course and is enthusiastic enough to get a student interested in learning the concepts of Operating Systems.
- Extremely.
- He is an excellent faculty. Learnt a lot from his course. Maybe because the class room was very big, his voice was not audible clearly in class. There was no problem in following his lecture videos though.
- Very. His lectures are always interesting, informative, and has bits of humor thrown in.
- Very effective.
- He was brilliant!..the right blend of clarity, humor, depth in concepts, the list goes on ..
- Mildly effective.
- Very effective! Classes were like an interactive discussion. It was fun.
- Pretty good
- Very, went to one office hour and my understanding for the assignment increased drastically.
- It was good and well organized course.
- Very effective.
- The instructor has in depth knowledge of OS concepts and he very well presented them in the class. He took care to answer questions in the class. Overall this was an excellent course.
- Very effective. He is one of the best teachers I have had the chance to learn from.
- The teacher was clearly able to show understanding and presented most topics easily
- Very effective in teaching the course. Could have presented more material on how to approach the programming assignments.
- Great guy and down to earth. Probably the most knowledgeable professor I've had so far.
- He was knowledgeable about the topics and taught at a level that was appropriate, however the midterm as a wreck.
- I felt that he was very effective at teaching the course. He has a lot of enthusiasm about the subject matter and is one of the professors that both seems to like teaching and is good at it.
- I talked about this in my previous comments.
- He has been great at covering the materials, but sometimes I feel like he is showing too much love for the "good students".
- The instructor did well for the lecture part of the class. However, there could have been more clarification given by the instructor during the assignment parts of the class.
- Geoff was awesome! I wish more professors in the CS department cared as much as he does
- Very effective.
- The instructor did an acceptable job of presenting the material in class. In person, he could be somewhat abrasive.
- Best teacher in CSE
- Very effective.
- Very clear and organized. Lectures well worth their time.
- One of the best professors I've had
- He is the best professor I have had (and I can confidently say that I will have) throughout my school career. He not only knows the information, he explains it well. Along with this, he is enthusiastic and convinces me to want to learn the material versus needing to.
- After this course, Geoff is my favorite CSE professor at UB.
- Maybe it is just me, but this guy went way too fast for me to even comprehend what is going on. Most of the things he taught, I didn't even see on the midterm and I sure as hell want to see them on the final!! Overall, he was utterly confusing.
- I can't blame him on the not so good acoustics from the lecture hall.
- Challen is very enthusiastic and approachable. He stressed the importance and relevance of the class in and outside of the classroom.
- I always enjoyed the lecture, they very pretty engaging.
- Challen is the best professor I've had at UB
- Thanks!
- Was very enthusiastic about the material, very informative, and was very detailed during lectures.
- Fantastic. No suggestions.

- Great professor. Very smart. Very reasonable. Overall just a great professor deserving of respect.
- Extremely Effective

Please comment on how effective the teaching assistants(s) were in helping you meet the learning outcomes of the course. -

- Extremely Effective
- I would have to say finishing assignments without the TAs/ninjas may have been impossible. That being said I feel some TAs/ninjas were definitely more helpful than others.
- Jinghao's blog saved many of us from much frustration.
- Gave helpful hints for homework assignments and tips on improving for future reference.
- The teaching staff was very active in the course.
- Jinghao and Guru are awesome! Ninjas really helped to
- I had a hard time understanding a few of them, but overall they taught me quite a bit.
- Recitations presented useful information for the assignments.
- Very good TAs.
- If it hadn't been for the teaching assistants, I would have most definitely sucked at this course. The assignments were completely brutal and required damn near 24/7 work time to fully understand them. Cheers to all of them. They clearly stated what the problems were and how to fix them.
- The TAs went above and beyond, and I think they are the main reason so many students did so well on the programming assignments.
- There was numerous office hours to go to and ask questions at. They understood and were able to help me walk through any issues I had. The recitations were very informative
- They were completely necessary. Without their help, I'm not sure if anybody would have been successful in the course - the course is essentially two separate courses, and they were fantastic at teaching the assignment half of it.
- Very effective.
- Very effective. Always available and many avaliable
- Did not spend enough time with TAs to answer.
- The TAs (and ninjas) were helpful.
- Guru and Jinghao were nothing short of spectacular ... Zihe sucked! She is not qualified. Please replace her
- They did quite well in assisting with attempting to understand each assignment.
- Recitations are really helpful especially when we were doing ASST1 and ASST2.
- I feel that recitations could have been a little more in-depth, considering the difficulty of the assignments.
- The recitations were useful for getting a better understanding of the material and the project. There were also many office hours with both the TAs and the 'ninjas' to get help when needed.
- All were great help during the projects.
- Very helpful in regards to the programming assignments.
- They all knew the topics well and were able to help with misunderstandings
- They didn't grade the midterm fairly, but they (along with the Ninjas) were *extremely* helpful in office hours. By the way - Guru deserves a raise!!!!
- They were extremely helpful and CRUCIAL to being able/coming close to finishing assignments.
- Some of them were very helpful while a few others were very condescending and not helpful.
- TAs had lots of hours and were open to helping.
- He explain the material well
- They do provide great help. Except there was this one time the TA did not show up at office hour, my partner and I couldn't get help from TAs. Though the ninjas were there, so we got some help at least.
- I would not have managed to get anywhere without the TAs and ninjas. I am incredibly grateful.
- It would have been better if he could speak a little clearer.
- TA's helped a lot and were awesome. Some of the ninja's though had an attitude. Don't be a Ninja if you are not willing to help or be understanding.
- Very knowledgeable, plenty of availability.
- The TA's were extremely good. Some ninjas made some students including me feel "retarded".
- All TAs are so smart and helpful. Never felt bad about bugging them with tons of question, in some instances I've walked to ninjas when it was not during their office hours and they were still extremely nice and willing to help. Also Guru rules!
- They were pretty good at helping teach the material. They could be a little bit nicer to the students during office hours who are asking for help though.
- Very helpful.
- Very effective.
- Super available, super helpful, really knowledgeable.
- Recitation was great to know what is basic for do assignments
- Hay
- Guru and Jinghao were two of the best TA's I've had in my time at UB. ZiHe seemed to be absent from a lot of office hours she was scheduled for.
- All TAs were very knowledgeable and helpful to the students.
- guild us into starting the project.
- really helpful. without their help i wouldn't be able to finish 1st assignment.
- They were very dedicated and helpful to their job. Some parts of assignments would be impossible without their help.
- If anything they were the only reason I could do any of the assignments. They give helpful advice while not just blatantly giving you the answer.
- I did not think that Zihe was a good TA. Most of the time she did not seem very eager or willing to help, and when I did get her attention her conversational English skills just did not seem up to par. She did not seem familiar with the course material either. I was rarely, if ever, able to get any useful information from her. All of the other TA's and ninjas were helpful.
- They were cocky, condescending and unhelpful. Guru would often scoff and yell at students who came to him asking for help. Office hours were a hostile, unwelcome environment.
- There are many office hours and we can seeking for help in any time.

- I did not attend recitation or office hours, but they always answered the questions on Piazza quickly and thoroughly which was a big help. Jinghao's blog was also a big time saver.
- Well prepared lectures and lecture slides. Answers questions. Enthusiastic. Very satisfied.

CSE421LR - Operating Systems

Instructor Geoffrey Challen

Term	Spring 2014	**Class #**	24522	**Section**	000	**Type**	Lecture	**Enrollment**	86	**Response Rate**	83.7%

Very engaging lecturer. I enjoyed attending class.

The work load for this course is entirely too difficult. I spent 20+ hours a week with my project partner trying to complete the assignments, yet ultimately we were still unable to finish them completely. The amount of work I spent on these projects, plus a full time job made my other classes suffer greatly from my lack of time to give them proper attention. The fact that this class is also offered in the summer WITH A REDUCED COURSE LOAD, makes me feel incredibly angry and betrayed. Thank god I never have to take this class again, and I completely regret my decision taking it with Dr. Challen

I liked the class a lot. a lot of work load but I expected it with this being a 400 level class.

Instructor was rude answering questions and emails
Work load is beyond ridiculous
Overall, the class is mediocre

OS really is an awesome course! Geoffrey *might* be overhyping it at the beginning of the semester, but not by much.

Very difficult homeworks that made recitations seem like a separate class. Should have shorter, more driven homework projects. Also test questions were interesting and inquisitive, but the "research" long questions should be a separate assignment, like a paper done at home, because they require research and lots of thinking to do effectively. Tests should be more straight forward. Otherwise course was very interesting.

Very high work load with this class

Difficult course and the workload is hellish...but the professor's lectures are among the best I've had in college. Very clear, very concise, and while the core subjects are labyrinthine, he brings it to a comprehensible level. Unfortunately, grading is slow.

Time spent outside classes was too much.

It's hard but pretty cool.

Great class ever!!

I have enjoyed this class. I believe that the tests were more difficult than they should be. A student may have a good grasp on the material but not be able to come up with an innovative solution to the long answer questions on the tests. If this is the case the student will lose a majority of the points on the test. I think at the beginning of the course more should be done to get students familiar with the code, and more c programming help should be given. My biggest struggle in the course was my lack of experience programming in c. I really like that lectures videos are posted online. I have attended most classes, but having the ability to go back before the final and watch lectures again is a big help. In the future it would help if you posted the up-to-date lecture slides online. I think the online auto grader can use some work. For ASST2 I think the grading should be broken up more. Lastly, I think that students should not get penalized on ASST3 for not being able to complete ASST2. They already lost the points on ASST2, so that should not carry over and hurt them on ASST3. Give out the ASST2 solution. The students are at a disadvantage because they need to learn the new code, but at least they have a chance to get ASST3 done.

Quite a challenging class, but it was a good experience

Some people in class at the back would watch videos during class or play goat simulator. One fellow was watching gore

videos. Not much you can do about the people who attend class, but just a heads up for next time. Class was good, no real complaints.

One of the best course I've taken at UB.

All the office hours were really nice and helped alot. It was really cool that Geoff gave up his office and sort of let us fill up his lab for office hours. The multiple deadlines weren't a huge deal with my group as we used the deadlines that Jinghao had in his recitation notes as a guideline of where we should be with the assignments. I think the review sessions at the beginning of each lecture were the right length, enough of a review that you could remember what we did last class but not so much that it felt like you were sitting through the material twice. Sometimes the laser pointer wasn't actually showing up on the screen during class and it was particularly hard to see in the videos. I did really appreciate the videos being online, it allowed me to easily review the material and to manage my own schedule if something came up such that I couldn't make it to class that day. I would say that the workload was a little extreme except that we were all warned about that on the first day and I learned alot because there was so much out of class learning that had to go on to complete the assignments. Some of the code reading questions felt a little unnecessary though and it was difficult to correct wrong answers if you didn't ask a TA where to look in the code base for the correct one.

The assignments need to be possible. Not impossible. I want to feel I accomplished something in this class, for example; actually able to do assignment 2 and finish it. Doing these hard assignments will only discourage students. I felt very discourage when I was not able to finish assignment 2.

This class is impossible but Geoff Challen at least makes it sufferable. Excellent, enthusiastic, and helpful professor with high standards for his students.

It was fun. Easy to pass, hard to ace. If your partner dropped he was very accommodating.

GWA is awesome

Demanding workload, and almost impossible to finish all the implementation tasks along with work and other classes. Poor workload balance. Tests were fair, code reading questions are good, and though we're still waiting on a grade, the design docs seem good. Jing Hao (sp?) and Guru are fantastic. Lectures were excellent and insightful. Thanks for a great semester!

i like OS and have learned much thing, but due to my poor English listening i couldn't catch up what the instrcutor was saying(actually for international student is little fast)

Tests were fair, based on what was taught and covered in class. However, I felt as though what I learned in class only touched the surface of what was needed to be known for the project assignments.

I wish I had less coursework from other classes so that I could have put more effort into this class, but as far as feedback I would suggest even making a deadline for the first two assignments before assignment two so that people are forced to not fall behind, because everyone underestimated assignment 2.

Awesome instructor. Wish there were a few more graded assignments other than the exams, but in all honesty it's that that pushed me to study harder and do better in the course. Overall, I really enjoyed the class!

I enjoyed the class. I learned a lot about Operating Systems, VM, Filesystems, Synchronization primitives - and put knowledge of these subjects to use. This was probably the best class I have taken at UB.

The only reason I rate this course good is because of the ridiculous grading of it. My partner and I put 40 plus hours of work into an assignment worth 9% of our grade and received a 0%. Even though we had code for each part of the assignment there was no partial credit at all. Not much of a learning experience, or at least to do decent in the class you must not make mistakes. From what I've learned from very successful software engineers is that in industry there are always mistakes made. I guess the way I felt is if there is one possible mistake with the grading script then you can come very close to failing the course. The worst of it is the lectures of this class were amazing, go figure finally find a teacher I loved going to class but am probably going to have to retake it. Which means I have recommended all friends who wish

to not kill their averages (which unfortunately is a very important part of getting a job) to be wary, it may not be worth your time.

Projects are ridiculous.

Workload is terrible. I did not have time to finish the assignments.

Learned more in this class than I did in any other course! Just be sure you have a dedicated partner to work with and the time to put in for this class.

Very nice and helpful course.

First time I've actually liked a computer science class

The one complaint i have about this class is the time given to take the midterm. I thought the test was fair but that it would require ~50 minutes. We didn't start the exam until at least 5 minutes after the class had begun, there were a few interruptions and we were told a few times at about 42 minutes into the class that if we didn't get on line to hand in the exam very very soon, we wouldn't be able to hand it in. I was forced to rush the exam. Maybe the exam was meant to be taken in less than 50 minutes and I just needed to be more focused. Other than that, the class was excellent.

Great professor!

Geoff was a great teacher and kept the lectures interesting most of the time. The workload was excessive at time but because of that I learned a lot. Although the amount of work took away alot of time from other classes because I spent upwards of 25+ hours a week coding for this class

most engaging class in cse. I wish I had more interest in the material and time/maturity to complete the projects. I would like to retake this class at some point to truly get the most out of it.

HARD!

The class challenging but rewarding however I would prefer a separate class for undergrads with a more refined curriculum

Difficult to do well on assignment 3 if you did not ace assignment 2. Seems pointless to have opportunities to resubmit assignments if it takes a month+ to have the first submission graded. Class was very challenging.

This was by far the best CSE course I have ever taken at UB. Geoff is really excited to teach the class, something rare I've seen at UB. I know we're a research institution, but without proper instruction how can students do research? I learned more about Computer Science in this class than most of my semesters at UB combined. This material is essential and I'm glad I took this class as a Junior, and almost wish I took at is as sophomore. Core concepts like bash and git were introduced, something I use every day as a Software Engineer at work. Geoff's class brings essential Software Engineering concepts to the UB CSE course set. I'd love to see more courses at UB mimic the layout of this course. Yes, its a lot of work, and I know many people that take OS in the fall for this reason. But you learn a lot and it's well worth it. Class is informative and enjoyable to attend, with the added bonus of taped lectures/recitations available if needed - a great plus if you're sick or going on vacation before breaks etc. All that being said, there is one thing I'd change. In terms of "hours per point," I think the code reading & design docs should be worth signficantly less than the implemenation. Granted - they are both important - as they force you to read through the source code and think before you code - but one spends an order of magitude more time on implementation, and I think that should carry an appropriate reward if successfull.

Grading takes forever. Project completion is very difficult with any type of minor workload from other classes piled on.

Course lectures and exams were fine. The project was way too hard, and I feel like not enough background information was given to make the project a realistic possibility.

I thought the course was awesome, but I wish there was a little more tie in of the projects in class (ASST3 was pretty hard - I wish we were given a little bit more help with it in class).

Perfect class but I dislike partner work I always get stuck carrying dead weight and this semester whenever I forced my partner to do something I ended up with poor grades

CSE521LEC - Operating Systems

Instructor   Geoffrey Challen

| **Term** | Spring 2014 | **Class #** | 23635 | **Section** | 000 | **Type** | Lecture | **Enrollment** | 75 | **Response Rate** | 96.0% |

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course load too heavy

Best class I have ever taken!

The best course I have taken since joining UB.

Dr. Challan is certainly one of the best professor at UB and his should should be taken by everyone. It is a tough course, still a must course.

The amount of both theory and application covered in the class, taken together, was way too much for me to absorb during the semester, especially alongside my other classes. In retrospect, I would have liked to take this class by itself during a semester, as I felt there was enough material to fully occupy me working on it alone full-time. Overall, I gained an amazing amount of knowledge and useful experience from the class. Maybe setting separate deadlines for each of the programming assignments would help to force students to pace their progress more evenly. The extra TA office hours were very helpful, and they were extremely patient. Thanks!

The best course I'd learnt in UB.

Best OS course.

This is the best course I took at the University at Buffalo. The course is very demanding and requires innovation. A great learning experience. I am driven to take up a PhD in Computer Science at a later point. Such is the impact of this course on me.

Partnering is fun and required but the grading policy should have been little more clear on rewarding each partner for his/her work.
Second putting hard deadlines discourages those who want to work after they fall behind. Instead there should have been partial credit for those completing the assignments late.

Many students had a problem regarding late grading of code reading questions and design document. Although I really appreciate the work done by the TAs and the Ninjas, I feel this is an area which can be improved. The decision to play songs before class was a masterstroke. Really built up nicely for the lecture. And the professor was awesome in whatever he taught. Every lecture that I attended, there was hardly any need for revision as the concepts were made really clear in class itself

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The best professor ever :)

One of the coolest professors I have every seen! Carry on the good work, Geoff!

Among the best courses I have ever taken. For a subject that could potentially get pretty drab and difficult to understand, Geoff made it highly engaging (and great fun) from start to end. The TAs were an amazing bunch.

Just wish the code reading questions were graded quicker. But I understand the limitations with just 3 TAs. I hope they allot more TAs next semester. Now that that's out of the way, these are the most committed course staff that I have ever seen. The professor, the TAs were absolutely terrific and the extra office hours and recitations were extremely helpful. Overall, This is the best course that I have taken at UB!

This is the most excellent and challenging course I have taken in UB. However, I suggest that students should be able to submit the code reading answer for second time even if the first submit has been graded.

Best Professor ever ! A must - take course . Learnt a lot. TAs were helpful. Assignments were tough but helpful. Hats off Geoffrey Challen !!

Assignments are awesome and at the same time super hectic. Can be offered in fall by Geoff so that graduate students will have a chance to take it in their last semester as they just have 2 courses remaining. And regarding the exams there was chaotic situation while we were video taped in the end while submitting papers which I feel is unnecessary. And I Dont understand this exam incentive concept for feedback. Really??!! Is it not against academic integrity? Apart from these two, the classes and assignments are super awesome...!

Overall I would say this is the best class which I have ever taken and will continue to recommend to my juniors too. Wishing best of luck to continue the same till the end.

The professor has great knowledge. Very nice with students, clear all doubts. The TA's and ninja's assigned for this course are very helpful. This is the only course which offers lot of TA hours. The projects are excellently designed. The exams require good thinking ability same for the projects also. This is the best course I had in my MS , the best professor and best TA's too.

Awesome prof! amazing TA's. This is certainly the best course offered.

Very good course helped me generate an interest in OS again after my bachelors

Lectures are enjoyable, kept me laughing. Projects are hard but a lot of help is provided, but I feel like a lot of people aren't prepared for the amount of coding required after taking cse250. The deadlines seemed fair as well

Best course yet

I would recommend every Computer Science student to take this class. The standards are very high in this class

Tough one! Assignments are killer! Take other courses wisely(i.e. go for lighter ones) if you are going for this class.

The Projects (The last two phases) are tough!!! But it is an excellent course.

a brilliant course and an amazing instructor. Recommend anyone studying in UB to take Operating Systems under Geoffrey Challen

A very interesting course. Learnt many new things. The professor and TAs are very helpful.

It was an awesome experience. The projects were the best part. Geoff is totally awesome but strict. ;P

It was a great class. I felt the time frame for project 3 was less. If this can be improved people will enjoy the course even more.

Geoff makes the material incredibly easy to learn. He teaches well and makes sure students understand the material. However, the projects are brutal and tough. Must put a lot of time into them but it is worthwhile.

One of the best courses I have taken at UB.

It was a more of a undergrad course than a grad level course. But a really good undergrad course.

Understanding the lectures through recordings was great and I felt that there were times when I couldn't grasp as much in the class. Instead of using the mic for recording, using it both for recording and amplification would be a good idea..

It is a great course but stressful

Please do not keep such flexible deadlines. I feel bad to admit this but none of us give projects time until the last week because there is always something else to do.

It would be great if you make the programming assignments to be a individual persons work. That gives fear which is

perfect motivation to get started.

I wish I had not taken any other heavy course! This is the best course offered at UB for CS.

Give more extensions on Deadlines :), its a request.

Best course at UB!

The best course in CSE department. Stimulating projects and fun lectures.

CSE421LR - Operating Systems

Instructor   Geoffrey Challen

Term	Spring 2013	**Class #**	10239	**Section**	000	**Type**	Lecture	**Enrollment**	51	**Response Rate**	86.3%

This has been without a doubt the best class I have taken at UB. Lectures are fun and stimulating, and Prof Challen is very good at teaching. He is engaging and energetic, and seems to want to teach us all he knows. He encourages questions of any sort at any time, and always looks into those he can't answer immediately. The projects were very difficult, and that was the biggest downside to the class.

The professor clearly enjoys this subject and loves teaching it, which always makes lecture good. The pace, however, often seemed slow. And the Professor seemed to have a sixth sense about the 2 minutes of the entire lecture where you zoned out and would choose that time to call on you. I found his random calling on people frustrating, especially when there were plenty of people ready to volunteer answers.

Prof. Challen holds the most engaging, thoughtful, and useful lectures I have experienced at UB. Lecture materials are available outside of class, but nothing replaces going through the concepts with him during lecture hours. The assignments were intense and required much more effort than the lectures, which put much of the burden on the student outside of class. While the assignments are a true test of programming skill, and assistance is available during many hours of the week, the separation of the assignments from what was taught in lecture forced the student to teach him/herself a majority of the coursework. I would recommend the prof./class to other students, especially if they desire to strengthen their skills with a significant Challen(ge). (Wow, that was terrible)

My favorite computer science course ever! I did find it a bit odd that we were learning memory management while doing the file system assignment (ASST2), and then learning about files and other stuff during the memory management assignment (ASST3). My biggest criticism of the class is the lecture time. I think 11am or 12pm would be optimal.

Geoff is an engaging professor and learned a lot however the review period at the beginning of class was redundant and unnecessary for a 400/500-level course. The assignments were very interesting but some of them need to be cut down. There are only 2 weeks left in the semester and my partner and I, who have been working about 10-hours a week together on the project and have been well ahead of the pace of the rest of the class, still have an entire assignment to start. The massive workload decreases my motivation to even try because I know there is no hope of completing it. Not to mention the 3-hour exam that I need time to study for.

This course was very programming intensive and allowed me to use much of the skills that I learned in earlier years of the computer science programming. My only problem is that there weren't firm enough deadlines for the programming assignments. I would have liked to have the deadlines set as apart of the syllabus.

Geoff is an amazing teacher who's fair and understand the struggles of being a college student. Just one thing, for the sake of your future students, BRING BACK DUE DATES! At least for ASST0 and ASST1. When you have two or three other CSE courses that do have due dates, it's easy to let these assignments slip under the radar. Maybe even split the assignments into smaller chunks, almost as if they were homework. Either way, DUE DATES! ;)

Dr Geoffrey Challen is a huge asset to University At Buffalo. His organization of CSE421 is breathtaking. Every lecture was recorded and posted via youtube on class website. That allowed us - students, to stay on track even if we have missed a class. Projects were quite hard but not impossible. I can clearly say that my programming skills were significantly enhanced. I would really recommend this class to anyone who values a true challenge and professionalism. Moreover, Dr Challen always tries to keep class active by asking various questions and picking people to answer. I must admit it's quite unusual way, especially in large classes but it works! I've never fell asleep in this class although it was early in the morning. My only advice goes to whoever plans out the courses: Don't put this class at 9am in the morning, please. I bet if instead 9am, it would be at 11/12, the attendance would be 60% greater than it is now.   To conclude, that was the best class I've taken at UB. P.S Although the class have around 100 people, Dr Challen managed to remember everyone's name. This is amazing! 9+/10   (because there is always place for improvement)

The project was hard but it forced you to learn a lot.

This is the best class and best instructor i ever had. He makes me feel more interest towards operating system. Keep it up and don't lower the standard to make it easy. It is hard for lazy people

Very good teacher. Engages the entire class. Love it

Yabba Dabba Doo

This was easily the best course I have taken at UB. Geoff breaks down very complex material into terms that nearly everybody can understand. The projects, while a pain, definitely made me learn so much about the kernel. This course is very relevant to the real world, unlike courses such as CSE396. You should hire more professors like Challen. It says a lot when a professor will memorize the name of every single person in class, and speak to them like human beings outside of class. It is also amazing when the professor can actually speak English. Professors like Geoff are an incredible asset to the school. I have learned more in the first half of the course, than I have learned at the end of any course I have taken.

Most people can't finish totally four assignments, why where are still be four heavy projects. Maybe less workload is better for understanding the course material.

Professor is a great lecturer and his style prevents the lectures from getting dry. The assignments however are extremely difficult.

the course was interesting, and the professor was clearly excited about what he was teaching

Overall the course is very hard if you cannot make time to do the assignments, but Geoff is one of the better teachers I've had because he actually makes the lectures interesting and fun.

very intriguing class, opened up a whole new world to me in CS. . . Challen himself is a great guy, kind, friendly, and VERY knowledgeable in the subject.

Geoffrey is perhaps, one of the best professors I have had here at UB. UB administration should take minute to observe Geoffrey in a classroom setting and take note on his characteristics and abilities. I really wish I had more professors like him at UB. As for the course, this was perhaps one of the most difficult courses I have taken at UB. Perhaps too difficult to be listed as an under graduate class. How ever Geoffrey is able to mentor the entire class through the depths of the code, and truly helped me to achieve the best i can

Great course. Learned the most from this course out of all my courses, regardless of the fact that the course is pretty hard.

I am a chronic procrastinator and fell behind in the assignments almost immediately. This was my first 400 level cs class and I was intimidated from seeking aid outside of class with TAs or Geoff because of my progress (or lack thereof) in the assignments. Clearly I'm at fault here more than anyone else but I just thought I'd put it out there.

Very smart guy, expects a lot of you, but that works in your favor.

Really hard. I'm struggling to get even the third out of four projects done. It's a lot. However, I think I learned more in this from the projects in any other course ever.

One of the most beneficial courses I have taken at UB.

I want this class to be held in the afternoon, not early in the morning since CSE421 by Dr. Challen is really decent and challenging class, and 9 AM is too early for most of seniors and graduate students . I want to apologize to professor for having not attended the class very well.

CSE521LEC - Operating Systems

Instructor   Geoffrey Challen

Term	Spring 2013	**Class #**	10143	**Section**	000	**Type**	Lecture	**Enrollment**	39	**Response Rate**	94.9%

It is better to give more hints or help about programming projects

Professor Challen is an excellent professor. This course was super tough. But he made it fun for us. I would attend every lecture he takes even if it was for 3 hours a day <without getting bored even for a second>. His lectures made it worthwhile to wake up at 7am. I believe I am lucky to have taken this course under Professor. Challen. Definitely the best CS course at UB in my opinion.

AWESOME course!! Professor is the best professor i ever had in my life. In future, if i think of PhD then I would like to have him as my guide. Before this course I was interested in OS, now I love OS and can see OS/161 code in my dreams...:-)

The best course I have taken in UB so far!

Having deadlines for the assignments would make it easier. Also putting a pre-requisite for C programming will help the students since the assignments deal with ure knowledge of C pointers and memory allocations.

Excellent coursework and the best professor to learn the course from!

One of the most awesomest Prof's ever!! I love the course!! and I'm sure no one else would have done a better job than Geoff!!

Probably the best course offered in Computer Science Dept.

Very good course, if it can be offered in Fall by same instructor it would be great.

Deadline for each individual assignments would be preferable. The overall deadline made us focus on other subjects first.

Awesome professor. Great class. I really liked the way the deadlines for the projects were placed at the end of the semester. This gave time to both slack off and catch up on other courses (;P) This course will get you to learn a lot more about the C programming language and will give you a taste of what any flavor of *nix looks like.

Every thing was perfect, but one change can be done, due to no deadlines of assignments students used to procrastinate the assignments, there should be some intermediate deadlines so that assignment can be done in timely manner, I do not suggest firm deadline like other courses because this is the beauty of CSE 521, so there should be something in between firm deadline and no deadline. I know it is difficult to implement but I think Dr. Geoffrey can do this also.

This was the best courses I took at UB, in fact the best course i have taken so far ever. I thoroughly enjoyed the assignments and the projects handed out, and the instructor actually stimulated interest in this subject and actually made you want to attend the lectures, even when they were early in the morning. There were plenty of TA office hours and the TAs for this course were very helpful with the assignments. I would really like to commend the instructor on this wonderful job. This course turned out to be the one i had come to UB for.

struggled but learned a lot!

Should have increased the rate at which material was being covered in the class

The best course I have attended so far

This was one of the best course and I learnt that I intended too.

One of the best classes I"ve ever come across

Great

CSE421LR - Operating Systems

Instructor   Geoffrey Challen

Term	Spring 2012	**Class #**	10280	**Section**	000	**Type**	Lecture	**Enrollment**	48	**Response Rate**	62.5%

Grading was really slow. Have only received part of ASST0 scores. Assignments were always given later than stated. As the the assignments got harder, the amount of time we had to work was less, i.e. we had more time on ASST0 than on ASST3. Overall poor time management.

Great course, unfortunately students are wholly unprepared for this course because of UB's terrible professors and education.

I really liked the lectures give by Professor Challen as they were extremely interesting and engaging. I liked that he went over the previous lectures materials by asking us questions about it in the beginning of class. This really helped reinforce the material. The tests so far have been fair for the most part, though I could have used more direction on what to study for it. The course work load was much more than I was used to. I was only taking 12 credits and I felt like I was running out of time to get everything done. The projects themselves were hard, but rewarding when you got them to work. The only negative thing that I have to say is that the grading for our projects took an unacceptable amount of time to get back. For instance, our first project that was due at the end of January/ beginning of February is only half way done being graded. I really enjoyed CSE 421 and I learned a lot of valuable skills from doing the assignments.

Did not get graded project back in a timely manner. He was a good instructor though and was very personable.

Difficult but rewarding

The professor was very knowledgeable and a great lecturer. He was also very helpful to me, at least, when I went into his office to ask questions The thing that turned me off to this class was the projects and the TA's. The projects took up a lot of time and almost seemed like a full time job to work on them. If the effort and time put into them is reflected in the final grade then I have no problems, but to spend all that time on a project to get only half of the project done was a turn off and very frustrating. This is a class that most seniors need to graduate and it seems like a lot of kids could end up failing. Again, I don't know how the grading is but if they could somehow reflect the effort in the class I would be okay with it and would recommend it to other students, but if all the grades reflect the progress on the project, I would not recommend this course simply because it takes up so much time (and could end up failing regardless) but also ends up hurting the other classes being taken. I also believe the grading scheme needs to change. They might as well have automated grading because the ta's grade based off the grading rubric, either giving all credit or none at all. It's is like they can't think outside the box and understand what we are trying to explain and instead look for "keywords" and if you don't have them then you get a 0.

The overall course was excellent; very well taught and explained. The professor was an excellent lecture and could really relate to his students. There were only two issues that I had with it, the grading and the project difficulty. The difficulty in part was due to unknowledgeable TAs (though this would have been a difficult problem in itself to subvert seeing as how this is an entirely new way of teaching this course at UB). The grading though was pretty ridiculous, it's now the end of April and we are still lacking feedback and grades on projets we handed back in early and mid February.

He's a really good lecturer and willing to help outside of class. However, his expectations are too high for the projects. The work we put in for the second half of the course was comparable to a full time job, and we still didn't come close to finishing the assignments which was extremely frustrating. The class was way too much work for 4 credit hours.

perfect

This is one of the hardest courses at UB (When it is thought by Challen). It required crazy amount of work and dedication. The worse thing about the course was that it is the end of the semester almost and I still do not know how I did on my projects. The grading for the class was poorly planed. Maybe this course was not that bad at Harvard.

However, UB does not has CS students with good enough coding skills to handle this much of coding without serious time dedication (so serious that you might want to drop other classes.)

Good class.
Way too much work.
Very little compromises.

Great lecturer, very helpful, terrible with providing project grading feedback, projects are an unreasonable amount of work (especially with our piss-poor background in C)

Geoff is an awesome prof. He is very passionate about operating systems and is the most enthusiastic professor I have ever met. He is always looking for new ways to engage students which is very important. Some of his weaknesses (ie grading) will subside both (a) as he continues to gain teaching experience, and (b) as he works with TAs who have taken his version of Operating Systems.

Please, whatever you do, do NOT make this course any easier or remove material from it. This was a fantastic wake-up call for me, I learned a ton of stuff from it, and I wish all of my other CSE classes had been this challenging and taught me this much. Plus, Dr. Challen is a great professor and does a great job of keeping lectures and the course interesting.

I really enjoyed this class. It will definitely better and better as Geoff gets to teach it more. The only thing I would have liked changed would have been a better and more competent course staff. It was almost useless to ask any of the TAs questions. Geoff did a great job at taking time to answer your questions if you had something legitimate. Many times I had over an hour long conversations with Geoff about design principles and any other problems i had in the course.

The course had a huge work load. About 20+ hours a week. That may be good for Harvard, but adding in the other classes and work, it's a little much. We had 2 weeks to do the last project which should have been at the very minimum a month. Also, our project grades took too long to get back. The first project was being returned as we started the 4th. The professor was great in lectures. Very engaging and kept the class moving at a decent pace. The only complaint I have is what was previously stated about the immense workload that doesn't fit (in my opinion) with a state college.

Not enough TAs, grading done at a glacial pace, projects way too large and time consuming (50+ hours), interesting course though.

very difficult!

Assignments were difficult and extremely time-intensive, the instructor must have forgotten that students have at least two or three other classes for which work must be done. The projects did not help me learn anything, and I hate operating systems now more than I have before.

Trying to understand os161 took a lot of time to try to understand and even then it was still confusing. I felt that this class consisted of fairly difficult material but it makes sense cause there are grad students there.

CSE521LEC - Operating Systems

Instructor Geoffrey Challen

Term Spring 2012 **Class #** 10178 **Section** 000 **Type** Lecture **Enrollment** 51 **Response Rate** 88.2%

New try , I learned a lot from this course.

Too much project with too little instructions

Kernel is an interesting topic but the project I think is a little hard for us.

not enough help on homework assinments

Instructor should provide more hints for assignment. The fact is that the harder assignment is,less hints there are. It waste us a lot of time to find useful information online.
The same assignment 3 in University of toronto, their instructor Ashvin Goel give them 4 weeks, but we just have three weeks with much less hints and , at the end of semester.

This course is good, anyway. Without our instructor, we will never have a chance to study operating system in this way in UB.

Projects are a bit too hard, but it's a good way to learn OS

Hope there will be less fancy stuff, more useful ones.

Need Feedback! Can't expect students to do well in a course that's not marking assignments in reasonable time.

Prof. Challen was an excellent professor for this course. The lectures were informative and easy to understand. The grading was somewhat lacking however, seeing that I received my grade for the very first assignment near the end of the course, and I haven't even gotten any feedback on the other two assignments. Also, having the TA's grade the midterm did not go over too well, because they didn't seem to understand that you can explain the answer using different words than the answer key.

Would have been better if the TA's knew more about the course work.

Geoff is amazing lecturer. So good that it blows my mind how many people skipped every class. The assignments require way too much previous experience that is not taught at the university. He did not mention anything about C, Git, or GDB in class, which is okay but expecting us all teach ourselves to be experts with all three of these on top of the huge projects is a stretch. The projects don't really match up with course material. The assignments would have been much better if they demanded us to think about the design decisions and how to implement operating system components. Instead, we had to spend our time figuring out how to do something simple in C.

Anyway, the topics I learned in class will certainly stick with me forever and I will definitely be a better developer because of it.

It requires critical and original thinking. The instructor is passionate and professional.

This was really 2 classes. The lectures and tests are concept-based at a high level. Very informative and interesting. The projects we were on our own to figure out practical implementation. It really depended ALOT on who you knew and what google posts you and your friends stumbled upon. It shouldn't be a class about how well Facebooked you are. The workload was that of 3 classes, no joke. There are not enough hours in the day to complete the projects. The TA's were almost useless. We knew more than they do. But they have the grading key. The midterm answers were graded like a parser compiling code: you had to have the exact keywords in the exact key places to get credit. That is, the graders of short answer and essay prose questions themselves are clearly very poor at basic English reading

comprehension skills. We are the ones who lose points.

I hope the instructor can speak slower. It is a little bit hard for me to follow him.

Expected timely feedback, could have helped

A lighter workload would help the students - so much time is spent working on the coding assignments that little time is left for anything else

Earlier grading feedback and earlier project release might help in the future. It's a bit hectic trying to fit in time to study for finals and complete the last project.

Considering the professor is new to teaching he needs to really improve on the academic aspects of giving workload considering the other courses as well.Also grading of assignments and tests done poorly.

Professor Challen is extremely knowledgeable about operating systems and helped us understand the internals of the operating system

Tough course, but very interesting, and very well taught. The assignment grading and feedback could and should have been faster.

Best course and best prof in UB so far. instructor was enthusiastic and passionate about teaching. I would recommend this course to everyone studying Computer Science in UB

Jeff is one of the best teachers I have had in the CS department. He was very challenging but it pushed me to learn. He was VERY VERY CLEAR the amount of work this class would be. He told students they would need to work 20hrs a week in his class and I would say that sounds about right.

I had no interest what so every in operating systems but now I am taking the next operating systems course this summer with ken smith. I am now very interested in the field and hope to get much better at it. Maybe one day I will contribute to an open source operating system!

Jeff would constantly ask the class questions this was great. It forced me to be prepared before class, just in case he would ask me a question. He seemed to stopped picking on people at random towards the end of the semester, but I think he should have continued to ask random people questions about material.

I was not impressed with the TA (Sonali). She was late several times (one of which was about 10 minutes or more). The lateness was not a big deal. What bothered me more was people would ask her questions and she would give generic answers or tell people to read the man pages. I think it was because she did not know much about os161. She taught the same recitation for 3 weeks (after asst2 was done). She said she did this because she did not have enough material to share for 3 weeks. I think it would have helped me and my group out a lot if she gave more information during these 3 weeks. She was always kind and polite. I think if os161 style OS is taught again the TA needs to be more familiar with the os161 code.

I wish the project were available sooner. This would give use more time to work on it. I wish we got more design feedback sooner. I wish there was more material to help us prepare for the project. I feel like most people just went online and found blogs that told people what they should do for their project. Maybe this is ok, because these blogs (that I found) were usually general in their information.

I think the work load may have been a little to hard. Maybe I am wrong.

I think the grading took way to long.

Fantastic course work I would have ever imagined. Though I have not done well, I love to be part of his lecture. Great efforts from Geoffrey and his team. I suspect learning curve is much higher in terms of System programming for this course.

wokr load is too heavy, everything else is really good.

The instructor had very high achievement standards but failed to assist and help students in the course.The staff nor the prof use to answer our doubt and emails. The instructor is not approachable and rude at times. I had great interest in learning OS but after taking this class I lost my interest and was actually thinking to drop this class.Our assignments were never graded on time as a result we have still not received our first assignment grades.The course OS161 is actually good if taught well but the instructor doesn't know this subject and moreover doesn't know how to teach.

Fall 2016 Summary Report

GEOFFREY W CHALLEN

	Course Sections	Enrolled Students	Responded Students	Response Rate
A	CSE 199SR (A): UB Seminar	116	112	96.55%
B	CSE 199SR (B): UB Seminar	127	122	96.06%
C	CSE 199SR (C): UB Seminar	96	94	97.92%
D	CSE 199SR (D): UB Seminar	99	92	92.93%
--	CSE 723SEM (CHAL): Seminars	9	0	0%
	Overall	447	420	93.96%

Overall, this course was:

	Very poor	Poor	Fair	Good	Excellent	Mean	Standard Deviation	Did Not Answer	Total Responses
A	14.29% (16)	21.43% (24)	32.14% (36)	25% (28)	7.14% (8)	2.89	1.14	0	112
B	9.84% (12)	22.13% (27)	35.25% (43)	23.77% (29)	9.02% (11)	3	1.1	0	122
C	9.57% (9)	21.28% (20)	30.85% (29)	27.66% (26)	10.64% (10)	3.09	1.14	0	94
D	4.35% (4)	10.87% (10)	36.96% (34)	36.96% (34)	10.87% (10)	3.39	0.97	0	92

Please rate your agreement with each of the following statements about this course:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Standard Deviation	Did Not Answer	Total Responses
The course was well organized.									
A	16.96% (19)	34.82% (39)	28.57% (32)	14.29% (16)	5.36% (6)	2.56	1.09	0	112
B	16.39% (20)	27.87% (34)	34.43% (42)	18.03% (22)	3.28% (4)	2.64	1.06	0	122
C	21.28% (20)	28.72% (27)	18.09% (17)	22.34% (21)	9.57% (9)	2.7	1.29	0	94
D	8.7% (8)	18.48% (17)	22.83% (21)	35.87% (33)	14.13% (13)	3.28	1.17	0	92
The course was intellectually challenging and stimulating.									

Please rate your agreement with each of the following statements about this course:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree		Mean	Standard Deviation	Did Not Answer	Total Responses
A	10.71% (12)	19.64% (22)	35.71% (40)	25.89% (29)	8.04% (9)		3.01	1.1	0	112
B	10.66% (13)	17.21% (21)	32.79% (40)	29.51% (36)	9.84% (12)		3.11	1.13	0	122
C	10.64% (10)	11.7% (11)	30.85% (29)	28.72% (27)	18.09% (17)		3.32	1.2	0	94
D	6.52% (6)	9.78% (9)	29.35% (27)	40.22% (37)	14.13% (13)		3.46	1.06	0	92

The work load in the course was reasonable and appropriate.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree		Mean	Standard Deviation	Did Not Answer	Total Responses
A	6.25% (7)	11.61% (13)	19.64% (22)	41.96% (47)	20.54% (23)		3.59	1.12	0	112
B	7.38% (9)	9.02% (11)	15.57% (19)	51.64% (63)	16.39% (20)		3.61	1.09	0	122
C	4.26% (4)	3.19% (3)	30.85% (29)	40.43% (38)	21.28% (20)		3.71	0.97	0	94
D	3.26% (3)	8.7% (8)	23.91% (22)	42.39% (39)	21.74% (20)		3.71	1.01	0	92

Methods of evaluating student work were fair and appropriate.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree		Mean	Standard Deviation	Did Not Answer	Total Responses
A	14.29% (16)	23.21% (26)	30.36% (34)	22.32% (25)	9.82% (11)		2.9	1.19	0	112
B	15.57% (19)	24.59% (30)	31.15% (38)	20.49% (25)	8.2% (10)		2.81	1.17	0	122
C	12.77% (12)	19.15% (18)	23.4% (22)	31.91% (30)	12.77% (12)		3.13	1.23	0	94
D	6.52% (6)	17.39% (16)	23.91% (22)	35.87% (33)	16.3% (15)		3.38	1.14	0	92

The course content (assignments, readings, lectures, etc.) helped me meet the learning expectations set forth by the instructor(s).

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree		Mean	Standard Deviation	Did Not Answer	Total Responses
A	15.18% (17)	16.07% (18)	32.14% (36)	26.79% (30)	9.82% (11)		3	1.2	0	112
B	15.57% (19)	16.39% (20)	27.87% (34)	27.87% (34)	12.3% (15)		3.05	1.25	0	122
C	11.7% (11)	12.77% (12)	28.72% (27)	29.79% (28)	17.02% (16)		3.28	1.22	0	94
D	6.52% (6)	10.87% (10)	25% (23)	43.48% (40)	14.13% (13)		3.48	1.07	0	92

For what primary reason did you enroll in this course?

	Required	Elective	Other (please specify)	Did Not Answer	Total Responses
A	88.39% (99)	8.93% (10)	2.68% (3)	0	112
B	84.43% (103)	11.48% (14)	4.1% (5)	0	122
C	80.65% (75)	12.9% (12)	6.45% (6)	0	93
D	79.35% (73)	16.3% (15)	4.35% (4)	0	92

This course is required for:

	Undergraduate Major	General Education	Graduate Program	Other educational program (e.g., Honors, Undergraduate Academies, Certificate, etc.)	This course was an elective	Did Not Answer	Total Responses
A	83.93% (94)	9.82% (11)	0.89% (1)	0% (0)	5.36% (6)	0	112
B	87.7% (107)	4.1% (5)	1.64% (2)	0% (0)	6.56% (8)	0	122
C	76.34% (71)	11.83% (11)	2.15% (2)	0% (0)	9.68% (9)	0	93
D	82.61% (76)	8.7% (8)	0% (0)	1.09% (1)	7.61% (7)	0	92

Please rate your satisfaction with the instructional facilities for the course:

	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied	Not Applicable	Mean	Standard Deviation	Did Not Answer	Total Responses
Classroom Space										
A	11.61% (13)	28.57% (32)	24.11% (27)	23.21% (26)	12.5% (14)	0% (0)	2.96	1.22	0	112
B	16.39% (20)	23.77% (29)	26.23% (32)	24.59% (30)	7.38% (9)	1.64% (2)	2.83	1.19	0	122
C	11.7% (11)	22.34% (21)	26.6% (25)	22.34% (21)	15.96% (15)	1.06% (1)	3.09	1.25	0	94
D	5.43% (5)	9.78% (9)	25% (23)	29.35% (27)	30.43% (28)	0% (0)	3.7	1.16	0	92

Please rate your satisfaction with the instructional facilities for the course:

	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied	Not Applicable	Mean	Standard Deviation	Did Not Answer	Total Responses
Classroom Technology										
A	8.04% (9)	17.86% (20)	31.25% (35)	21.43% (24)	14.29% (16)	7.14% (8)	3.17	1.16	0	112
B	13.93% (17)	12.3% (15)	28.69% (35)	27.05% (33)	9.02% (11)	9.02% (11)	3.05	1.2	0	122
C	10.64% (10)	8.51% (8)	38.3% (36)	24.47% (23)	14.89% (14)	3.19% (3)	3.25	1.15	0	94
D	6.52% (6)	7.61% (7)	29.35% (27)	31.52% (29)	19.57% (18)	5.43% (5)	3.53	1.11	0	92
Recitation Space										
A	4.46% (5)	7.14% (8)	28.57% (32)	29.46% (33)	27.68% (31)	2.68% (3)	3.71	1.09	0	112
B	7.38% (9)	6.56% (8)	29.51% (36)	41.8% (51)	9.02% (11)	5.74% (7)	3.41	1.02	0	122
C	4.26% (4)	2.13% (2)	26.6% (25)	42.55% (40)	22.34% (21)	2.13% (2)	3.78	0.96	0	94
D	3.26% (3)	4.35% (4)	22.83% (21)	40.22% (37)	26.09% (24)	3.26% (3)	3.84	0.98	0	92
Lab Space										
A	5.36% (6)	4.46% (5)	25% (28)	12.5% (14)	10.71% (12)	41.96% (47)	3.32	1.14	0	112
B	5.74% (7)	7.38% (9)	29.51% (36)	18.03% (22)	5.74% (7)	33.61% (41)	3.16	1.02	0	122
C	5.32% (5)	1.06% (1)	28.72% (27)	20.21% (19)	8.51% (8)	36.17% (34)	3.4	1.02	0	94
D	4.35% (4)	2.17% (2)	25% (23)	20.65% (19)	11.96% (11)	35.87% (33)	3.53	1.05	0	92

Overall, this instructor was:										
	Very poor	Poor	Fair	Good	Excellent	Not Applicable	Mean	Standard Deviation	Did Not Answer	Total Responses
A	3.57% (4)	17.86% (20)	27.68% (31)	26.79% (30)	20.54% (23)	3.57% (4)	3.44	1.12	0	112
B	8.2% (10)	10.66% (13)	31.15% (38)	25.41% (31)	23.77% (29)	0.82% (1)	3.46	1.2	0	122
C	6.45% (6)	7.53% (7)	24.73% (23)	34.41% (32)	23.66% (22)	3.23% (3)	3.63	1.13	0	93

Overall, this instructor was:

	Very poor	Poor	Fair	Good	Excellent	Not Applicable	Mean	Standard Deviation	Did Not Answer	Total Responses
D	5.43% (5)	8.7% (8)	29.35% (27)	30.43% (28)	26.09% (24)	0% (0)	3.63	1.12	0	92

Please rate the course instructor according to each of the following statements:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Not Applicable/Don't know	Mean	Standard Deviation	Did Not Answer	Total Responses
The instructor clearly presented what students should learn (the expected learning outcomes) for the course.										
A	3.57% (4)	8.93% (10)	21.43% (24)	46.43% (52)	18.75% (21)	0.89% (1)	3.68	1	0	112
B	4.1% (5)	9.84% (12)	29.51% (36)	29.51% (36)	25.41% (31)	1.64% (2)	3.63	1.09	0	122
C	6.45% (6)	7.53% (7)	20.43% (19)	36.56% (34)	26.88% (25)	2.15% (2)	3.71	1.14	0	93
D	4.35% (4)	4.35% (4)	19.57% (18)	44.57% (41)	27.17% (25)	0% (0)	3.86	1.01	0	92
The instructor was enthusiastic about teaching the course.										
A	2.68% (3)	4.46% (5)	14.29% (16)	43.75% (49)	31.25% (35)	3.57% (4)	4	0.95	0	112
B	4.1% (5)	4.1% (5)	22.13% (27)	35.25% (43)	32.79% (40)	1.64% (2)	3.9	1.04	0	122
C	7.53% (7)	2.15% (2)	13.98% (13)	29.03% (27)	45.16% (42)	2.15% (2)	4.04	1.18	0	93
D	2.17% (2)	4.35% (4)	17.39% (16)	32.61% (30)	43.48% (40)	0% (0)	4.11	0.98	0	92
The instructor made students feel welcome in seeking help/advice in or outside of class.										
A	5.36% (6)	12.5% (14)	25.89% (29)	30.36% (34)	24.11% (27)	1.79% (2)	3.56	1.15	0	112
B	6.56% (8)	7.38% (9)	28.69% (35)	30.33% (37)	25.41% (31)	1.64% (2)	3.62	1.14	0	122
C	9.68% (9)	6.45% (6)	21.51% (20)	27.96% (26)	32.26% (30)	2.15% (2)	3.68	1.27	0	93
D	4.35% (4)	5.43% (5)	26.09% (24)	34.78% (32)	28.26% (26)	1.09% (1)	3.78	1.06	0	92
The instructor presented material clearly.										
A	1.79% (2)	8.93% (10)	32.14% (36)	36.61% (41)	18.75% (21)	1.79% (2)	3.63	0.95	0	112

Please rate the course instructor according to each of the following statements:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Not Applicable/Don't know	Mean	Standard Deviation	Did Not Answer	Total Responses
B	3.28% (4)	9.02% (11)	30.33% (37)	27.87% (34)	28.69% (35)	0.82% (1)	3.7	1.08	0	122
C	7.53% (7)	7.53% (7)	23.66% (22)	30.11% (28)	30.11% (28)	1.08% (1)	3.68	1.2	0	93
D	4.35% (4)	3.26% (3)	18.48% (17)	44.57% (41)	29.35% (27)	0% (0)	3.91	1	0	92

The instructor creates an environment of inclusion in which everyone can participate equally.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree		Mean	Standard Deviation	Did Not Answer	Total Responses
A	2.68% (3)	6.25% (7)	28.57% (32)	41.96% (47)	20.54% (23)		3.71	0.95	0	112
B	4.1% (5)	3.28% (4)	33.61% (41)	44.26% (54)	14.75% (18)		3.62	0.92	0	122
C	7.53% (7)	4.3% (4)	21.51% (20)	45.16% (42)	21.51% (20)		3.69	1.09	0	93
D	4.35% (4)	9.78% (9)	27.17% (25)	34.78% (32)	23.91% (22)		3.64	1.08	0	92

Rate the level to which the following were covered in your UBS:

	Poor	Fair	Good	Very Good	Excellent		Mean	Standard Deviation	Did Not Answer	Total Responses
Think critically using multiple modes of inquiry										
A	10.71% (12)	24.11% (27)	41.96% (47)	18.75% (21)	4.46% (5)		2.82	1	0	112
B	9.84% (12)	23.77% (29)	42.62% (52)	15.57% (19)	8.2% (10)		2.89	1.05	0	122
C	9.68% (9)	21.51% (20)	38.71% (36)	18.28% (17)	11.83% (11)		3.01	1.12	0	93
D	6.52% (6)	15.22% (14)	46.74% (43)	26.09% (24)	5.43% (5)		3.09	0.94	0	92
Analyze disciplinary content to identify contexts, learn fresh perspectives, and debate and discuss problems in the field										
A	13.39% (15)	19.64% (22)	42.86% (48)	17.86% (20)	6.25% (7)		2.84	1.07	0	112
B	15.57% (19)	23.77% (29)	35.25% (43)	18.03% (22)	7.38% (9)		2.78	1.13	0	122

Rate the level to which the following were covered in your UBS:

	Poor	Fair	Good	Very Good	Excellent		Mean	Standard Deviation	Did Not Answer	Total Responses
C	11.83% (11)	20.43% (19)	43.01% (40)	16.13% (15)	8.6% (8)		2.89	1.08	0	93
D	3.26% (3)	17.39% (16)	44.57% (41)	28.26% (26)	6.52% (6)		3.17	0.9	0	92

Understand and apply the methods of close reading, note taking, analysis, and synthesis

	Poor	Fair	Good	Very Good	Excellent		Mean	Standard Deviation	Did Not Answer	Total Responses
A	17.86% (20)	26.79% (30)	42.86% (48)	9.82% (11)	2.68% (3)		2.53	0.98	0	112
B	22.13% (27)	22.13% (27)	27.87% (34)	21.31% (26)	6.56% (8)		2.68	1.22	0	122
C	17.2% (16)	26.88% (25)	36.56% (34)	11.83% (11)	7.53% (7)		2.66	1.12	0	93
D	7.61% (7)	22.83% (21)	39.13% (36)	25% (23)	5.43% (5)		2.98	1	0	92

Demonstrate proficiency in oral discourse and written communication

	Poor	Fair	Good	Very Good	Excellent		Mean	Standard Deviation	Did Not Answer	Total Responses
A	16.07% (18)	25% (28)	39.29% (44)	14.29% (16)	5.36% (6)		2.68	1.07	0	112
B	13.11% (16)	26.23% (32)	36.07% (44)	18.03% (22)	6.56% (8)		2.79	1.09	0	122
C	15.05% (14)	20.43% (19)	39.78% (37)	16.13% (15)	8.6% (8)		2.83	1.13	0	93
D	6.52% (6)	20.65% (19)	43.48% (40)	20.65% (19)	8.7% (8)		3.04	1.01	0	92

Develop essential research and study skills such as time management

	Poor	Fair	Good	Very Good	Excellent		Mean	Standard Deviation	Did Not Answer	Total Responses
A	17.86% (20)	25.89% (29)	34.82% (39)	15.18% (17)	6.25% (7)		2.66	1.12	0	112
B	17.21% (21)	27.05% (33)	28.69% (35)	19.67% (24)	7.38% (9)		2.73	1.17	0	122
C	17.2% (16)	25.81% (24)	35.48% (33)	10.75% (10)	10.75% (10)		2.72	1.19	0	93
D	6.52% (6)	18.48% (17)	45.65% (42)	22.83% (21)	6.52% (6)		3.04	0.97	0	92

Utilize the eportfolio for at least one assignment

	Poor	Fair	Good	Very Good	Excellent		Mean	Standard Deviation	Did Not Answer	Total Responses
A	28.57% (32)	22.32% (25)	31.25% (35)	13.39% (15)	4.46% (5)		2.43	1.16	0	112
B	37.7% (46)	22.13% (27)	23.77% (29)	12.3% (15)	4.1% (5)		2.23	1.19	0	122

Rate the level to which the following were covered in your UBS:

	Poor	Fair	Good	Very Good	Excellent	Mean	Standard Deviation	Did Not Answer	Total Responses
C	35.48% (33)	22.58% (21)	18.28% (17)	11.83% (11)	11.83% (11)	2.42	1.38	0	93
D	19.57% (18)	26.09% (24)	29.35% (27)	17.39% (16)	7.61% (7)	2.67	1.19	0	92

Understand the academic expectations pertaining to studentship at the University at Buffalo and to higher learning at a research university

	Poor	Fair	Good	Very Good	Excellent	Mean	Standard Deviation	Did Not Answer	Total Responses
A	13.39% (15)	21.43% (24)	41.96% (47)	16.07% (18)	7.14% (8)	2.82	1.08	0	112
B	13.11% (16)	27.87% (34)	27.87% (34)	26.23% (32)	4.92% (6)	2.82	1.11	0	122
C	13.98% (13)	19.35% (18)	40.86% (38)	15.05% (14)	10.75% (10)	2.89	1.15	0	93
D	5.43% (5)	17.39% (16)	48.91% (45)	17.39% (16)	10.87% (10)	3.11	0.99	0	92

Please rate your agreement with each of the following aspects of this course.

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Mean	Standard Deviation	Did Not Answer	Total Responses
The instructor had high achievement standards for this class.									
A	5.41% (6)	13.51% (15)	27.03% (30)	43.24% (48)	10.81% (12)	3.41	1.03	0	111
B	6.61% (8)	9.92% (12)	28.93% (35)	38.84% (47)	15.7% (19)	3.47	1.08	0	121
C	6.45% (6)	6.45% (6)	24.73% (23)	43.01% (40)	19.35% (18)	3.62	1.07	0	93
D	3.26% (3)	8.7% (8)	31.52% (29)	38.04% (35)	18.48% (17)	3.6	0.99	0	92
The instructor clearly showed the relevance of the course to my discipline.									
A	6.31% (7)	11.71% (13)	20.72% (23)	46.85% (52)	14.41% (16)	3.51	1.07	0	111
B	5.79% (7)	10.74% (13)	25.62% (31)	40.5% (49)	17.36% (21)	3.53	1.08	0	121
C	8.6% (8)	4.3% (4)	24.73% (23)	38.71% (36)	23.66% (22)	3.65	1.14	0	93
D	3.26% (3)	7.61% (7)	21.74% (20)	45.65% (42)	21.74% (20)	3.75	0.98	0	92
The instructor provided useful and timely feedback on graded work.									

Please rate your agreement with each of the following aspects of this course.

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree		Mean	Standard Deviation	Did Not Answer	Total Responses
A	9.01% (10)	18.92% (21)	28.83% (32)	33.33% (37)	9.91% (11)		3.16	1.12	0	111
B	7.44% (9)	14.05% (17)	27.27% (33)	35.54% (43)	15.7% (19)		3.38	1.13	0	121
C	9.68% (9)	7.53% (7)	25.81% (24)	38.71% (36)	18.28% (17)		3.48	1.16	0	93
D	6.52% (6)	8.7% (8)	29.35% (27)	38.04% (35)	17.39% (16)		3.51	1.08	0	92

Violations of Academic Integrity standards did not occur in class.

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree		Mean	Standard Deviation	Did Not Answer	Total Responses
A	4.5% (5)	8.11% (9)	28.83% (32)	35.14% (39)	23.42% (26)		3.65	1.06	0	111
B	2.48% (3)	4.13% (5)	30.58% (37)	42.15% (51)	20.66% (25)		3.74	0.91	0	121
C	6.45% (6)	4.3% (4)	30.11% (28)	34.41% (32)	24.73% (23)		3.67	1.09	0	93
D	2.17% (2)	2.17% (2)	22.83% (21)	46.74% (43)	26.09% (24)		3.92	0.88	0	92

Rate your level of knowledge in the following:

The ability to:

	Poor	Fair	Good	Very Good	Excellent		Mean	Standard Deviation	Did Not Answer	Total Responses
Think critically using multiple modes of inquiry										
A	5.36% (6)	22.32% (25)	47.32% (53)	18.75% (21)	6.25% (7)		2.98	0.94	0	112
B	7.38% (9)	22.13% (27)	40.16% (49)	18.85% (23)	11.48% (14)		3.05	1.08	0	122
C	8.6% (8)	16.13% (15)	39.78% (37)	22.58% (21)	12.9% (12)		3.15	1.11	0	93
D	1.09% (1)	10.87% (10)	54.35% (50)	27.17% (25)	6.52% (6)		3.27	0.78	0	92
Analyze disciplinary content to identify contexts, learn fresh perspectives, and debate and discuss problems in the field										
A	8.04% (9)	13.39% (15)	53.57% (60)	17.86% (20)	7.14% (8)		3.03	0.96	0	112
B	10.66% (13)	18.85% (23)	40.98% (50)	21.31% (26)	8.2% (10)		2.98	1.07	0	122

Rate your level of knowledge in the following:

The ability to:

	Poor	Fair	Good	Very Good	Excellent	Mean	Standard Deviation	Did Not Answer	Total Responses
C	8.6% (8)	16.13% (15)	34.41% (32)	29.03% (27)	11.83% (11)	3.19	1.11	0	93
D	1.09% (1)	13.04% (12)	51.09% (47)	28.26% (26)	6.52% (6)	3.26	0.81	0	92

Understand and apply the methods of close reading, note taking, analysis, and synthesis

	Poor	Fair	Good	Very Good	Excellent	Mean	Standard Deviation	Did Not Answer	Total Responses
A	8.93% (10)	18.75% (21)	49.11% (55)	20.54% (23)	2.68% (3)	2.89	0.92	0	112
B	12.3% (15)	20.49% (25)	36.07% (44)	22.95% (28)	8.2% (10)	2.94	1.12	0	122
C	8.6% (8)	21.51% (20)	35.48% (33)	21.51% (20)	12.9% (12)	3.09	1.13	0	93
D	4.35% (4)	11.96% (11)	48.91% (45)	29.35% (27)	5.43% (5)	3.2	0.88	0	92

Demonstrate proficiency in oral discourse and written communication

	Poor	Fair	Good	Very Good	Excellent	Mean	Standard Deviation	Did Not Answer	Total Responses
A	10.71% (12)	17.86% (20)	45.54% (51)	18.75% (21)	7.14% (8)	2.94	1.04	0	112
B	9.84% (12)	24.59% (30)	36.89% (45)	18.85% (23)	9.84% (12)	2.94	1.1	0	122
C	10.75% (10)	15.05% (14)	32.26% (30)	27.96% (26)	13.98% (13)	3.19	1.18	0	93
D	3.26% (3)	17.39% (16)	44.57% (41)	25% (23)	9.78% (9)	3.21	0.95	0	92

Develop essential research and study skills such as time management

	Poor	Fair	Good	Very Good	Excellent	Mean	Standard Deviation	Did Not Answer	Total Responses
A	9.82% (11)	23.21% (26)	45.54% (51)	16.96% (19)	4.46% (5)	2.83	0.97	0	112
B	13.11% (16)	21.31% (26)	37.7% (46)	20.49% (25)	7.38% (9)	2.88	1.11	0	122
C	11.83% (11)	17.2% (16)	32.26% (30)	21.51% (20)	17.2% (16)	3.15	1.24	0	93
D	2.17% (2)	14.13% (13)	51.09% (47)	25% (23)	7.61% (7)	3.22	0.86	0	92

Utilize the eportfolio for at least one assignment

	Poor	Fair	Good	Very Good	Excellent	Mean	Standard Deviation	Did Not Answer	Total Responses
A	16.96% (19)	25.89% (29)	40.18% (45)	11.61% (13)	5.36% (6)	2.63	1.06	0	112
B	31.15% (38)	20.49% (25)	29.51% (36)	13.11% (16)	5.74% (7)	2.42	1.21	0	122

Rate your level of knowledge in the following:

The ability to:

	Poor	Fair	Good	Very Good	Excellent	Mean	Standard Deviation	Did Not Answer	Total Responses
C	23.66% (22)	19.35% (18)	31.18% (29)	12.9% (12)	12.9% (12)	2.72	1.31	0	93
D	18.48% (17)	15.22% (14)	41.3% (38)	19.57% (18)	5.43% (5)	2.78	1.12	0	92

Understand the academic expectations pertaining to studentship at the University at Buffalo and to higher learning at a research university

	Poor	Fair	Good	Very Good	Excellent	Mean	Standard Deviation	Did Not Answer	Total Responses
A	6.25% (7)	18.75% (21)	52.68% (59)	15.18% (17)	7.14% (8)	2.98	0.94	0	112
B	8.2% (10)	22.95% (28)	40.98% (50)	18.85% (23)	9.02% (11)	2.98	1.05	0	122
C	7.53% (7)	16.13% (15)	39.78% (37)	19.35% (18)	17.2% (16)	3.23	1.14	0	93
D	3.26% (3)	14.13% (13)	47.83% (44)	23.91% (22)	10.87% (10)	3.25	0.94	0	92

The teaching assistant(s) were effective in the recitation/lab and office hours.

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Mean	Standard Deviation	Did Not Answer	Total Responses
A	8.04% (9)	17.86% (20)	30.36% (34)	34.82% (39)	8.93% (10)	3.19	1.08	0	112
B	8.2% (10)	13.93% (17)	27.87% (34)	37.7% (46)	12.3% (15)	3.32	1.11	0	122
C	6.45% (6)	7.53% (7)	31.18% (29)	43.01% (40)	11.83% (11)	3.46	1.01	0	93
D	3.26% (3)	10.87% (10)	18.48% (17)	51.09% (47)	16.3% (15)	3.66	0.98	0	92

Fall 2016 Comment Report

GEOFFREY W CHALLEN

	Course Sections
A	CSE 199SR (A): UB Seminar
B	CSE 199SR (B): UB Seminar
C	CSE 199SR (C): UB Seminar
D	CSE 199SR (D): UB Seminar
E	CSE 723SEM (CHAL): Seminars

Please comment on the elements of the course you found particularly effective. -

A

- Group activities and video "lectures"
- Videos
- Doing activities in class helped me learn a lot easier.
- activities in class
- The videos were good, and I liked the way it is set up to make content, instead of just doing tests and work sheets all the time.
- Videos
- Use activity to help us learn.
- The fact we are exposed to so much technologies like Linux and various command line tools is very cool, so is brief into to web programming lanaguages.
- Recitations and online videos
- Some of the in-class activities helped me learn.
- It provided information and skills that will be needed, as a computer science major, in the future.
- Even though I would have liked learning the material in class, I think that the strongest part of the class is the videos because the students are required to watch them.
- None really besides the fact they took attendance.
- The online lectures were by far the best element of the course. Allowing students to review the material easily and at their own pace helps students who genuinely wish to learn the source material.
- I definitely believe hands on is the way to go, but in a smaller setting with a professor either leading or showing us would've been the way to go.
- working together in a room
- They teach us a new way to program using virtual box.
- I found the website building part of the course really interesting and useful
- A few of the activities were actually very informative.
- The in-class workshops were pretty cool, they were very interesting.
- none
- Activities dealing with our personal website and tools most developers use were very interesting and useful. The website activities were my favorite part.
- The videos
- Some really good useful things about internet
- The group activities we did in class.
- Flipped classroom could work really well if managed appropriately. Meaning having to watch videos and use practically what we have learned in class.
- Nothing really.
- The flipped classroom model is a very interesting approach to teaching a class. I liked the idea of watching our "lectures" outside of the class and doing hands-on activities during class periods.
- Very unorganized
- Some of the actives were useful. I also like the video for homework format and activities for class.
- Some of the activities were very engaging and well paced.
- Practice coding as part of in-class activity.
- I enjoyed the "flipped classroom" layout of this course. It was a great experience to be apart of. The idea of learning all the lecture material through short YouTube videos worked great for me, as I'm sure it did with many other students. As I do spend a lot of time watching videos on the Internet and find it is a great way to learn content.
- Coming from another major that's not computers I feel I learned a lot of new and interesting things !
- The flipped classroom idea was cool

Please comment on the elements of the course you found particularly effective. -

- None
- Video projects, some of the group activities.
- The videos assignment assigned to us each week could help us in exploring the internet world.
- the way of teaching
- The class exercises done twice a week and the recitations always seemed to be very informative.
- I believe the fact that we learn internet through internet is an interesting idea and definitely brought students attention.
- The course allowed us students to complete problems with other students. TAs walked around and observed to make sure all was going well. They helped when needed.
- nothing
- the thought of how and what is internet
- The idea of learning out of class and doing some activity when we would normally have a lecture.
- To learn new methodology.
- I had no prior experience with computers, therefore this class was very challenging
- video
- I enjoyed watching videos to learn the course.
- Not very much, the videos watched (seeing as it was a "reverse classroom") were somewhat effective in trying to teach "something", but I can't say that the topics covered in the classroom and taught in the videos were collinear, they sometimes felt like they weren't even on the right track with what was covered in the classroom.
- Nothing was effective.
- I like the flipped classroom method
- I thought the topics were for the most part interesting.
- Learning through the internet
- I feel like the activities in class were ffevtive due to the use of group work. Students wouldn't do as well if they didn't work with s group.
- I found that only a select handful of the activities were effective and actually taught us something. It was more effective to have a single group for the entire week rather than change during each session.
- I liked the videos for homework aspect.
- assignment ware all done through out the internet
- The recitation was (sometimes) more helpful than the activities and the videos combined.
- Forcing us to do the survey to push the deadline back to 11:59.
- The in class assignments where virtual box wasn't used and were more hands on helped me retain knowledge more easily
- The class structure and environment was easy to work in. Being broken up into groups allowed for more person to person interaction.
- I found the activities and the videos really effective.
- javascript game and anotehr programm
- absence of exams and tests helped avoid rot-learning.
- Sometimes the class was interesting, and other times it was not.
- the activities
- When we were taught material relevant to the CSE major.
- Learning how to make a website and work with a terminal, if we haven't before, were very effective.
- The videos on major topics were cool but as you got more into them they got more bland but not too much.
- 1. Hands-on experience 2. Innovative method of teaching
- I already knew all of the topics covered by this course.

Please comment on the elements of the course you found particularly effective. -

- I find the class videos to be a good source of review material. It's quite helpful to look back at them once in a while.
- the assignments
- The online videos
- The videos.
- nothing really super effective

B
- Watching the Video was very good way to study and i like this type of class set up.
- The recitation was fun to attend. The professor was very nice and fun to talk to.
- Watching online videos.
- The work he put into the videos
- The videos. The lecturer. The course content.
- Any activity that is fun and engaging and isn't too confusing.
- Nothing
- Web design and web navigation
- Videos were mostly effective
- Having students apply what was taught in the videos to assignments in class.
- The flipped classroom
- i liked the idea of the flipped classroom an giving students the freedom to learn on their own pace.
- The flipped classroom
- Working in pairs
- The course is a good idea, a lot of the information that was covered in this course was some that I hadn't seen before. The videos were a good way to teach the students to have a more hands on approach to the class.
- Some of the activities were cool.
- Lectures in video format.
- Working in groups
- I found the activity sessions where we actually coded in HTML and JavaScript and CSS to be helpful. While at the time I had no idea what I was doing, I've now realized that by doing those it set a framework for each of the languages and I find it easier to learn each one .
- I liked the activites where you actually code in class and work with the linux OS
- Nothing
- I liked the flipped classroom style of this course. I thought it was really nice for us to learn outside of the classroom and apply what we learned through activities in class. Lectures in class are a little boring.
- The video assignments and the final project are very engaging.
- I found that the videos were sometimes effective due to the topic that we were learning and I found the videos that we had to make an effective way of learning as well.
- Group work
- This course was effective in putting my in different groups, allowing me to talk to different students I normally wouldn't have met.
- Fun group work and great online review videos.
- The content that was taught was educational and I enjoyed what I learned.
- This course is one of the valuable and interesting classes I have ever take. UTAS and professor Geoffrey Challen are very helpful if you have some technical question and totally have no idea, they would take you to the right track. After the class, I had the online videos to watch, which widely introduced all types or tools of the internet. I love that class.
- Creating a personal website really got me interested and was fun for me, because I really wanted to learn it
- The only thing I found effective about this course was the fact that I had to show up every day. Other then that this class did not

Please comment on the elements of the course you found particularly effective. -

help me learn

- -Videos -TA Liam Gensel & Kyle S. were extremely helpful & polite
- I think the flipped classroom was a very good idea for the Seminar class. It gives us the option to go back and re-watch and even re-learn the material.
- nothing at all
- What I found effective about this course was incorporating an attendance system to ensure students attend the activities planned for the day. In addition, some of the planned activities were actually interesting when it came to using the program "Virtual Box" to do some coding in relevance to the internet.
- The internet videos are very good to study lots of knowledge.
- Interesting videos
- I learned what is computer science and I loved it
- Having video recorded lectures to look back on was nice to have. Most of the activities exposed us to what problems people in certain careers may face on a day-to-day basis.
- The CSE 199 class covered topics that I was curious about, like how the internet works.
- n/a
- Learned more about the internet and the various topics related to that. In addition, learned basic skills such as html and css coding.
- Some of the exercises in class were very well done. Mostly the hands on coding ones, as they were fun and interesting.
- Practicle
- Working in a group
- The topics were good most of the time
- The most effective aspect in this course was being able to work in groups for each assignment which allowed for more ideas and better outcomes.
- I enjoyed completing the in class activities. They were very hands on which helped understand course material easily.
- Partner activities were fun and informative most of the time.
- in class activities - when i had a partner i worked well with. i did like having new group members every week, though.
- It exposed me to a lot of helpful tools
- The videos
- Social interaction, fun cooperation
- The reseverse classroom system was interesting to try and it was easy to learn from the videos
- I enjoyed learning about how computers work. These days, everything is ran by technology. Acknowledging the computer language is efficient when attempting to solve a coding problem. I also found group activities to be interesting and mind-challenging as we were working as a team.
- Videos and Activities
- The TA's were very cooperative.
- Group work
- Some of the videos were helpful in getting a better understanding of how the internet works.
- In class activities that engaged my curiosity were really great
- I liked how they switched up the videos so that you cannot switch to a different webpage and let the video stream in the background.
- Video lectures on certain topics very interesting and informative, Proff. Challen is very good at explaining these topics.
- The video taught me a lot of things about internet, those are the fun part and effective part of this course.
- Plenty of information
- I found that the videos were pretty informative

Please comment on the elements of the course you found particularly effective. -

- We were given videos to watch for homework, so that gave us a taste of information. However, to truly grasp the content, we had to make a video of our own. This was highly effective.
- I very much enjoyed the flipped classroom setup.
- Nothing was effective. Course was disorganized and grading system was horrible
- I liked a lot of the exercises we did in class and liked meeting a variety of people.
- None
- Homework site is relatively well done, projects are reasonable.
- I found the video projects to be effective.
- I really did enjoy the bite-sized chunking of the video lectures - it helped me to watch them on my time, re-find topics easily, and generally fit into my life.
- group working
- The videos.
- The flipped classroom is a great way to learn.
- Being able to work on the activity with other people every week.
- None

C
- These are things I found negatively effective: • I find the professor is unapproachable that I believe doesnt have much respect towards others. I find he way he speaks to students who asks questions disheartening, because he gives snarky replies, while half of the time not actually answering the student's question • When I ask the TA's for assisstance when assistance, I was told to look up a tutorial on Google. Whenever I explain that I did in fact loo kup a guide, but was still confused on a few things, they still refused to help amd once again told me to search for an answer on Google • Poor location to hold a "class" (he put us in Bert's cafeteria) • Lessons were unclear and overly complicated, students who aren't experienced had no idea what to do and recieved little help from the TA's • The TA's do all the grading, and each of them frade differently • The professor and TA's have unrealistic expectations. Example, we had several projects where we have to make a video covering a topic from the video lectures. We were told to just use our phones or computers to take the video, that it doesnt have to be professional or have edits, but then gave out poor grades for a video that wasn't "well-made/produced" or "professional". 99% of the students made the video the same eay the instructor does himself, in which he sits in front of the camera and talks. But when the students sit in front of the camera and talk, we recieve poor grades for a video that isnt fancy. This, we cannot do, because we are not film majors, nor do we have any experience with the such. These are things I found positively effective: • Some of the "activities" were useful and taught me something
- Good
- The videos were a more effective learning tool than I expected.
- Since there ere so many students, the way they divided up the TA's to cover and help them all was smart.
- The activities in class were effective.
- I found that the class motivated me well to learn more about web development independently.
- Respective and active
- Nothing
- The videos were somewhat interesting.
- the course was good I learned quite a lot from it .
- The structure of the course was a good idea in theory, but fell short in practice. I liked the enthusiasm of many of the TA's, but that is the only good thing I can say about the course.
- Making a website
- The topics on some of the videos were very interesting.
- If students actually watch the videos, they are an effective learning tool for the course.
- Nothing was effective, this course was awful
- The combination of an online section of the class and in class activities was the best part of the class.

Please comment on the elements of the course you found particularly effective. -

- I found it effective that we worked in groups to figure out challenging activities everyday. We teach ourselves, so it's a new approach to learning.
- Although some of the activities seemed pointless most of them were engaging and informative.
- Grading class participation/attendance.
- Videos Hand on experience
- Some of the earlier activities were interesting, but then they fell off.
- I kinda like some of the scavenger hunts. They were ok
- Although some activities I believe were important and actually can be applied to what we learned in the videos, some can be classified as a waste of time. For an example, the activity that included downloading the Second Life software. That activity was pointless and was entirely ineffective. It was almost as if the professors and TAs didn't know what activity they should do that week so instead of cancelling class, they decide to make us do a pointless activity for 50 minutes. 50 minutes in which we, as students, could be using for studying, homework, etc.
- Videos
- Activities and videos
- How everything is outlined and how the video due dates are predictable.
- -recitation was really helpful -some of the activities, especially the more hands-on ones, were useful outside of class
- Video is a good tool. We can watch it as many times as we want and it's always there.
- Videos and group activities were engaging
- The reverse class idea. It helps me learn more effectively.
- I enjoyed the flipped classroom model, with online video lectures.
- some of the activities were pretty cool
- I learned how to make a website
- good
- Having no lecture.
- Web building was useful
- - I think the video assignments were a good way of getting to know a topic really well
- The awareness of the internet and its ways of working and networking.
- The flip lessons were effective watching videos at home and then coming in to class to use what we watched to execute tasks.
- None of it
- Learning how to begin to code HTML.
- more activities is better
- The videos were effective
- the videos from Professor Challen. the group format(and the randomizer bot). the forum for the class.
- Homeworks were cool, most activities are fun
- The idea of the reverse classroom was well implemented in the video lectures.
- None
- No exams
- groups
- Group work with other students was helpful in that if I became stuck I could reach out to them to help.
- I thought the videos were intuitive and if you didn't understand them the crazy number of t.a's made it really easy to get a solution.
- The amount of flexibility and learning materials provided were sufficient. Internet videos were helpful for reviewing material forgotten.
- I learned a lot in depth about the Internet and how it works in a whole by watching the videos.

Please comment on the elements of the course you found particularly effective. -

- The flipped classroom offered a different type of learning experience that I enjoyed.
- nothing
- excellent job on the videos, they were extremely informative and since they are public on YouTube, people all over the world will be able to learn from them for years to come.
- I found the group work and video assignments effective
- Group work with activities.
- I thought it was ok.
- The video assignments
- I felt that learning html and creating githib accounts was very helpful to developing future skills and helping us on the computer science path
- The in class activities were interesting but need better organization.
- lab exercise's
- Every Class, we did different topic activity through group. We can learn topics through operating talking with partner, and asking TA. TAs will go around, and when we have questions, they will come and help us.
- The activities were engaging.
- Videos full of information that can be rewatched easily.
- The TA's helped explain the coursework during class

D
- Learning by doing in class seemed like a good idea.
- Videos, video projects, internet participation project, classroom activities
- The videos that were assigned as homework was valuable information, and I am delighted to have access to them whenever I want.
- watching the videos
- the TAs are very nice to help you figuring the problems you get confused
- The coding activities (github, jquery) were interesting and hands on and interesting.
- The marshmallow activity for sure.
- The in class activities.
- none
- Internet videos helped me learn on my own time.
- I thought the course work was too rough for a seminar class especially for non computer science major
- I liked that we watched videos online. They were very informative and gave us basic intros into topics of the tech world.
- The classroom activities.
- activities working in groups
- The final project was a very interesting assignment that I somewhat enjoyed completing.
- Nothing in this course was in any way effective, and I'm surprised it was approved to even be a class.
- The elements of the course that I found to be effective was that they had students in groups of four which made it freshman interact with people more.
- I like the activities than a lecture.
- N/A
- The fun inclass activities
- Hands on activities.
- the videos
- The activities
- Nothing

Please comment on the elements of the course you found particularly effective. -

- Nothing

- None

- Interesting

- The in-class activities and the videos were really helpful.

- The activity sections were a great way to get to understand the material

- Nothing

- Video Submissions.

- I found the course to be very effective in its organization of content and in the presentation of that content in various activities. Additionally, I believe the assigned projects for this course were not only effective in reinforcing knowledge learned from the video material, but were also entertaining and fun.

- The video grades are too harsh.

- The web development aspects.

- Reversed-classroom techniques worked well for this subject, I felt. Doing activities in class helped me so much more than if I had to do them on my own.

- internet security

- It was a very interesting course.

- The elements of the course made me learned a lot about the internet.

- I enjoyed the flipped classroom and the in class activities. Also I enjoyed how many Teachers assistants there were.

- The videos for homework were well made and explained things clearly.

- Learning how to make a website

- I liked doing activities in class. It was very stimulating!

- Group activities

- Videos and class activities

- The most effective parts of the course were the ones that did something above and beyond what could be found in a browser (Like following the wire video to see where the connected Internet was near us). The other videos seemed kinda boring in comparison. The activities that helped were the ones that taught us actual skills/tools we would need that didn't require outside knowledge or retained knowledge over weeks of activities.

- The video homework was interesting and I found them particularly effective.

- The video content on the course's website is very resourceful.

- A flipped classroom may have worked in high school, but definitely not in college. The one thing that I did find interesting were the activities in class since those were fun to do at times.

- Developing the web content at the end

- I took this course by mistake so nothing was effective to me.

- The fact that the videos we watched actually translated to our activities was very helpful.

- The explanation of the internet and how it actually effects our daily lives

- Watching the videos every week was a good way to learn

- Learning about the different uses of the internet and how it functions coherently with the real world

- Video Assignments

- Videos

- I felt the reverse classroom style of the course was very effective in allowing each student to learn at his own pace, while still being able to participate with the class in activities to review what was learned, especially for me.

- Group work.

Please comment on course improvements you would suggest. -

A
- the class was perfect
- Organization. Meetings seems very disorganized.
- No class, make it 100% online
- the check out process
- Organized the videos into separate groups in the review section depending on which topic they all relate to. It's kind of a drag to scroll through an entire list of videos in the Review section just to find one certain video.
- Improve grading done on video submissions, they are still very opinionated (eg. sense of humor, and creativity). Both of these are open to vast levels of interpretation.
- 1. PDFs with the video can strengthen the gained knowledge
- Better in class activities
- The course needs to be organized a bit more and there should be set content to go over at the recitations.
- Include more material that potential CSE majors would learn in their future CSE classes.
- Make the videos more interesting to watch.
- reducing the number of different topics and delving deeper into certain select ones. less video content. one deadline a week instead of 2 separate ones since deadlines on a weekday are hard to keep up with.
- table and class environment are too pool
- I would suggest an improvement in the checking out process.
- Change the content of some of the videos we watch at home to be more interactive
- Change the videos to help students actually pay attention and avoid virtual box
- Don't make the deadline 8:59. Make it 11:59 like a rational person.
- have recitations more often and have one activity a week.
- 3 video assignment that we ned to do is hard
- Make better activities for each day to work on on.
- Merging all the sessions was a bad idea. Even though we had to switch groups for each week, the introduction process was still too long since there were so many people. And then finding our group mates for the first time always delayed the process because we don't know who anybody is. At least if the sections remained separated, we'd eventually get to know each other and facilitate the class.
- More sections of the course. There are too many people going to the same place at the same time.
- Course needs to be way more organized
- I didn't like the design of the class at all. It consisted of groups in which everyone would just wait around until the 50 minutes was up so we could sign out and get credit for the class. I honestly couldn't say I learned anything from this course. Also, all the dozens of hours of videos we had to watch were all things you could google yourself and had no real application to anything besides a few specific fields. Recitations for the class were pointless and a huge waste of everyone's time in my opinion because the TA's always run out of discussion material within the first 10-20 minutes of class. I would suggest a whole redesign of the class structure. An interesting idea but executed poorly.
- Find a better way to track attendance. It says I have missed several classes when I have been to all but 2. maybe if you had everyone swipe in with their UB IDs it would track better.
- This course has amazing potential, it was just executed poorly. Shift the Tuesday video due dates down to Wednesday so people have better time to breathe in between the set of videos; Allow students a way to somehow catch up their grade on videos they missed (it doesn't have to be full points); Find a way to get people to pay attention and do their activities in class (important to make them learn!).
- -Videos were not always easy to understand, or explained things effectively or accurately -Activities flip-flopped from painstakingly easy to unbelievably difficult, difficulty curve is kind of crazy -TA's were not always the most helpful in the classroom, they were present but it was hard to get their attention sometimes or to get checked out so I could leave and go home/to work, doesn't apply to everyone but it certainly happened part of the time -When they weren't not helpful, TA's ranged from quiet/reserved, to very open and comedic, to generally helpful and open, to narcissistic, power-hungry freaks who tried to exercise what faux-power they

Please comment on course improvements you would suggest. -

didn't have on students who didn't know any better. -Felt lost many times, like I had no idea what to do, what I was doing, what I was doing wrong, what the right thing to do was, etc. when doing activities. Wasn't sure what kind of help I would get if any at all. -Professor Geoffrey Challen switches from an insane, ego-maniac who doesn't have the common decency to treat a serious question as that, instead taking it as a joke and mocking you for having dared to try to speak to him to a kind, helpful instructor who challenges his students as well as tries to explain and help when they have issues. I've heard of cases where he is actually intellectually-stimulating or helpful, but I haven't personally experienced it, and I'm waiting for that day to actually happen so I know for myself. -THIS MAN'S EGO IS SO HIGH I COULD DIE FROM LACK OF OXYGEN FOR BEING ON TOP OF IT All in all, I felt like I learned somethings, but not much. I never want to have to take anything like this again.

- The in class activities of this course were very hectic, and often led to nothing at all. Whether a student took a nap for 40 minutes or worked hard on the activity, everyone got the same grade as long as you showed up to class.
- smaller class
- The videos need to be less repetitive. The videos should also be categorized into weeks so it's easier to go back and find certain video topics for the video projects because after awhile they all just blend together in the review tag and it can be hard to tell which weeks are which even if they specified in the syllabus. Also, for activities where a lot of people need to access one website/server at a time it should be done in groups of 2 to 4 people using 1 laptop so the internet and the website aren't slow.
- Everything
- Grading Work
- Be more organized. Have all the TA's know the material. Make sure the activity will work when everyone goes to do it. Not make the course as you go along.
- more lively describe the knowledge if that is possible.
- plan things better
- remove the course
- The checkout system to keep track of our attendance was a little broken, but it's nothing to be too worried over. Mr. Challen's ways to organizing the class made it much more productive and least time was waste so overall.
- I believe the activities could be explained more, because there isn't much time to google everything.
- I think the class was really well taught. Unfortunately most of the students didn't seek to gain as much from it as they could have. This brought down morale during the course quite a bit as much of the class was group oriented. But i don't think it was the educators fault for that.
- better assignments
- My suggestion is that maybe there could have some ways to make the class activity section more organized since there are so many students.
- Some of the group activities felt like individual activities. There needs to be a better way to organize berts, and I think the activities jump around to much, they should cover less topics more in depth.
- Stop offering this class
- Better organized contents and activities
- I suggest that you change the video deadlines to be a little later and in some videos please don't introduce topics that we are expected to know and build off of that. Coming from another major I don't understand every reference and found myself researching stuff every video (even though I learned a lot and loved it)
- I really hope this course remains at UB as the freshman CS seminar. It is a really eye opening course on the Internet and how technology has evolved over the years. I think the current course setup is great.
- I felt that as the time towards to the end of the semester, the in-class activities become less interesting, which I hope it can be better.
- The difficulty of doing each part of an assignment needs to scale properly.
- Do not treat some of the activities as if we were children. Some of them were appalling in the level of maturity and age they were built for (sticking straws through marshmallows, playing a dumb mmorpg, playing games clearly meant for children, using sites also meant for children). Also, do not force a speed in which video's have to be played at. Most people found ways around the code that tracked if people watched the videos. If I want to watch the videos at double speed I should be able to.

Please comment on course improvements you would suggest. -

- To change the way they approach the topics

- While the idea was good, the execution was lacking in places. The activities need to be tweaked, as I'm sure we all know. Some are terribly boring and unnecessary, others toss you in too far without much direction or guidance (see: Activities #19-20).

- Not sure

- A better supervision on students to make sure that we know the course contents. Students usually do not know what they are doing in class and not learning anything.

- Make more interesting activities.

- More videos

- Better organization and more reasonable activities.

- making this course a lecture instead

- The class really needs assignments other than the main videos and final.

- The activities were a 'hit or miss' kind of thing. Sometimes I felt like I learned a lot, and some days felt like a waste of time. Also NOTHING HAPPENS IN RECITATION, it is not necessary.

- I don't like the video grading part of the course. I find their reasons too vague and doesn't really help for further improvement.

- The course improve my programming skills.

- finding a method to force students to actually watch the videos. Activities that don't confuse students that have no background in html.

- The grading of videos that we produced ourselfs was inconstant and harsh. There were major variations between graders, of ten to twenty percent, which was aggravating, as typical one grader would give a 90 and the second a 70 leaving your average a 80. Even though the grading criteria states that grades were not looking for production level quality, the grades among classmates that I talked to leads me to believe that the average for these videos was in the high seventies low eighties. Considering that we are mostly freshman with only High School experience with presenting, it makes little sense why the grading is so harsh. Also there was no documentation that mentioned that a laptop was necessary for the course, however I have several emails saying that "All group members should bring fully-charged laptops to class." and that if we did not we would be asked to leave. This presents a huge burden on the students unnecessarily and needs to be addressed.

- I guess an overall more structured class would be better.

- Now, the rest of this course is one big mess. The improvements that I would make are: The videos- Please make it so that people cannot have the video on and do other things on their computer. So people said that this is already happening but plenty of computers still do not have this. It would also be nice to make it possible to have the videos unavailable during one's classes. I have seen at least twenty students watch the videos during CSE 115 and in CSE 199. Making videos- I would like the videos to be less points on your total grade and a late credit system. I would also like to add a small quiz to replace some of the points if the videos were lessened. Plenty of people have sent their video a minute late and got nothing, which is not fair. Their should also be an easier way of submitting our videos to you, like emailing the link using a certain header so that they could be distinguished from other mail. In class activities- Please plan them more carefully. Our class shut down at least four servers and the level of professionalism and creativity has been all over the place. Learning the material is important but when you go from putting marshmallows together to website making to a decently intriguing coding introduction to crashing servers, some form of consistency is needed. I would like to see a different order of the activities, having the personal website in-class activity on two spread apart weeks (And I'm not talking about (Wednesday class, next week's Monday class) is not the best design for the class and for the students. Also Second Life is literally the worst activity we did in class. Others- Adding many outlets in Bert's - *start a petition* - Try to make more room, or use another room for huge classes - If doing an online activity, one computer per group to prevent crashes - One group of four or six per week; I enjoyed talking to my group members instead of switching every day and not getting to know anyone - I'm not sure who this TA is but one tall blonde guy was being obnoxious constantly, both for his students and others around him. - A better way of attendance and leaving. some TA's are stricter than others for this, some used our emails, some made us sign out and the same TA mentioned earlier make his students make jokes or other nonsensical task to see who leaves first. - The TA's were generally unhelpful in plenty of cases, some had to look at the email and still couldn't help. All of my TA's were nice and tried to help but they were uninformed on the task at hand. - The CSE 199 Grade robot is a different method then what I am used to. I liked it but I wish that I got my grades on a more regular basis. I would like to see my grade every other week so that I am not blindly guessing my grades. Hopefully this is extremely helpful for you and the TA's and hopefully this helps mold the class to a more fair and efficient seminar.

- MORE ORGANIZATION

Please comment on course improvements you would suggest. -

- Remove some of the activities like second-life etc. those activities while may be fun to some. Wasn't the best use of my time due to other course work I would of rather of been doing for other classes.

- Give us some cool projects to work on. No, I don't mean the activity we do in class time. Give us a mini computer board, maybe something like a raspberry pi for us to play with. Like a monkey toying with an AK-47, it would be interesting to see what we can do with it. I personally plan to use it as a finger point scanner to unlock the dorm bathroom.

- Everything is good.

- None

- Make the grading more even, it seemed like there was some confusion among the TA's about what is an appropriate grade for things and what is not. The variance in some of the grades for the videos (3 TA's grade each individual video) was astounding. I would also try to find a better way to track attendance as there were some issues there too. Overall though, great seminar course, especially for computer science majors.

- making our own videos wasn't fun, didn't like it

- There should be a day in the week where there was teaching.

- The structure of each class

- Change activities so they do not require a previous activity to do. It makes it so that if you miss one activity then you can not participate in the next one.

B
- more student interaction

- N/A

- Don't hold class in a cafeteria

- Quizzes on the video

- need more interesting stuff

- The checkout process was, to some extent, clunky. Even at the end of the semester. I also don't think students had a super clear idea how things were supposed to work from an organizational standpoint going in. I know it's all outlined in the syllabus, but it would be useful to really drive home what was to be expected on the first day. Also, having an alternative to the video assignments might be useful for those who find themselves camera-shy.

- Make class interesting.

- Some TAs were not very smart or good at anything, most were good though. You need a better screening process.

- show an exemplary video because the scoring on video projects are really random and unpredictable

- Take this course out.

- Don't make people play Secondlife...

- Give students a later deadline time for videos then 9pm, because who finishes their homework before 9. Also the activities were useless and thought nothing and wasted time. Sometimes TA's would forget to add on checkout list so people would lose credit

- I would definitely make the activities either more relatable to the videos or the videos cover more stuff *cough*command line*cough*

- There are no improvements that have to be made as far as I'm concerned.

- I don't think every class should be an activity. Some of them should be lectures.

- TA's should help more if possible

- Be more organized, because all students in this course are from different majors. We don't know a lot of things, so please be more progressive in the future.

- I do not agree with the flipped classroom concept, 2 lectures and a lab would have been a more sufficient use of time. Every week, it seemed 1 class activity was a throw-away not really enforcing any of the topics learned in the video lectures. For example, the "Second life activity" or the video review sessions did not add to the course in any way. Recitations seemed to be used for getting feedback on the course instead of having meaningful internet discussions. Activities should be done once a week in recitation with 2 supplement lectures.

- notification of new videos uploaded on the website

Please comment on course improvements you would suggest. -

- Should organize the class assignments better and easier for people with no prior background in computer science

- Mebbe remove the video submission review days? No one ever really does them early enough to show off so it was always sorta a waste of time

- Make the in class activities more organized and more effective. Less videos to watch.

- Actually teaching us a lesson before giving us a group assignment on it. Not everyone is a CSE major in a seminar.

- More organization for the activities.

- In the beginning of each class, have students submit 1-2 sentences on what they learned from the previous session. This will help refresh our memories.

- There was little guidance on the in class activities

- Video deadlines were very harsh and I often missed them by 10 minutes receiving no credit for the ones I had watched before the deadline

- The way it is organised and taught

- Keep things a little more relevant. Playing SecondLife is a massive waste of time and makes you look like a joke of a class>

- videos to watch should be due at midnight not 9pm!!

- More organization and structure

- UTA's should be a lot more lenient when grading video assignments. I did not do nearly as well on my second video assignment and I do not think that it was graded the way it should have been.

- The assignments needed to be more organized and the TA's needed to be better prepared.

- Rather than jump on many subjects briefly, focus on a few really good topics.

- Better activities, better use of time

- Activities in ubunto was a disaster

- Organization could have been better, a lot of times we weren't able to do the exercise as it was intended due to lack of resources or technical problems.

- A different idea for projects other than making videos.

- At times, the videos to watch dont actually help at all with what we need to do during class. Also, the TA's mostly tell you to search google on what the answer, or how to do something. It makes sense as part of their job to teach and guide the students rather than put it off and tell them to search up google. And this class said that no CSE experience was needed for the class but most of the activities required computercoding skills and things that CSE students already know what to do.

- The video assignments are hard and most people do not watch the assigned mandatory videos. Its a bit waist of time especially if there is no test. I would much rather have this class in a lecture hall instead of watching videos on your own time. Meeting in Burt's is gross, especially if you have to place your bag on the floor and your laptop on the tables.

- Get organized! Send out activities at least early the day before, not at 10PM. Make the videos due at midnight.

- I suggest more activity and game program

- nothing, really.

- The activities are a little boring.

- Ensure activities will be interesting by possibly add more activities involving "Virtual Box". In addition to that, if the activity is slightly challenging and hard to pick up at first, provide a video teaching the students on what to do. Finally, upload less videos a week and provide some questions for each video to ensure students actually watch the videos.

- Teach the class in a completely different way than before

- The organization of some of the meet-ups could be better. In the beginning of the year, we were learning a lot of cool functions for computers and learning about the internet. But towards the end of the year, it was diluted and wasn't totally interesting as the first 3/4 of the semester.

- -Pick Partners -Videos on how personal hygiene is important for all college students -Only TA's Liam& Kyle seemed to know what they were doing the whole time -TA Evan needs to stop calling us kids even tho he is a year older than us

- A proper evaluation of our knowledge like tests and quizzes would give students greater incentive to pay attention to the videos.

Please comment on course improvements you would suggest. -

- Since we all have to use the same documents or applications during the class, a really good wi-Fi will be needed for that and sites that will not crash. I really wanted to learn from the videos we had to watch weekly, but because I had other classes with huge workload, I couldn't always pay attention to the videos. I needed the videos to catch my interest

- I will suggest video grading can be more flexible, don't be that strict.

- I would suggest better organization and a bit more time on difficult topics.

- Video grading, attendance

- Better way of tracking attendance. The videos to review online were good but me and many other students felt like we were teaching ourselves rather than learning from the course.

- Overall organization and grading needs to be fixed. Some TA's give higher grades for videos while other ones give very low scores. Attendance isn't done well, that would be nice if fixed also.

- Less people

- I would suggest having some of the things we learn in an actual class instead of just being on the class website

- Some of the activities need to be improved and need to be more related to the current topic and be more engaging.

- I would suggest a better grading policy in terms of the videos. Also, some of the TA's aren't very helpful, and it seems some of them don't even know what is happening in the class. When the TA's grade the videos, they should leave comments on how to improve our videos. Just giving us a grade does not help at all because we don't know what we did wrong and how to improve next time.

- Nothing

- It was an overall pretty decent course it's pretty tough to come up with improvements. The only thing I'd have to say is that late in the semester after watching hundreds of videos previously they did get boring. But does that mean they weren't very good? No not at all. My chem lecture is 5x as boring as those videos ever got to be so I think they are alright and students just have to deal with that sometimes.

- better organized work sessions

- Very hard for recovery to an A

- Focus more on the specific topics rather than on covering a wider range of topics.

- The venue was awful for what the course was trying to accomplish. Many of the TAs didn't know what they were doing. Geoffrey wasn't very nice himself. Tons of tech issues hindered the grading process and made it inaccurate in multiple scenarios.

- I think the labs that were done in class were not advanced enough and should have been a little more well thought out. The day we "worked" with second life the entire time was in my opinion a waste of a day and could have been better spent learning a new language or developing our current programming skills.

- The course is not set up to help those who have never learned anything about this before. I am not an cse major and this was the hardest and most confusing class ever. Just try to make it so that everyone can learn new things.

- N/A

- For assignments, the grading has sometimes been contradictive. So perhaps there should be a new grading system.

- Make grading of the videos less subjective

- Some form of a lecture

- More organized activities

- - Professor should help more - Recitations are not needed - Way to track videos more clearly - More useful activities - Better instructors and TAs

- TAs that give actual instructions other than: "Google it" or "I don't know what I'm doing." Some TAs also treat the students like children and belittle them. A particular TA named Evan is mean and harsh to students who ask questions and gives no instructions.

- More organized projects. Better grading rubric.

- Less videos more teaching

- Inatructions and descriptions of activities and assignments are too vague. Grades of video assignments are contradicting.

- Make the TA more helpful in teaching students rather than just standing there

Please comment on course improvements you would suggest. -

- Since this is the first year this class is being taught, I understand that it was difficult to organize. This class was just very awfully organized. I dont think I learned anything from this class. This was my least favorite class.
- Everyone can't make videos. Some people have phobia to stand in front of the camera and speak. Please you should consider that.

C
- No course improvements
- Have more interactive activities in which the course staff can help more with the students.
- The videos were monotonous
- No videos
- More organized activities
- Nothing.
- More well thought out video submission grades.
- I would just improve the organization
- better system for organizing seating at Bert's.
- hire a new guy
- Be more organized. I shouldn't get a 20 point difference on the same project when graded by two different UTA's.
- This class should be in a classroom next time but overall it was well taught.
- Giving more fair material during activity sections. Course could use better ways to distribute amount of time needed for students to accomplish certain activities.
- I think if the class work becomes a little easier, because not everyone has used linex or any coding device. So I believe if it was slightly easier it would be more appealing to a lot of people.
- I would suggest TA's to be more knowledgeable on the activities, I understand that they are sophomores for the most part and that this class is an attempt to change the way UB learns but I don't think it did the best it could do. Quizzes at the end of the sets of videos would actually make students pay attention while watching the videos in my opinion.
- less work
- Better activities
- Get rid of flipped classroom and actually teach students.
- Better organization and optimization of class activities is definately required. The activities rarely worked to their full extent and I felt like I was just wasting my time by going to class.
- Questions during homework, exams maybe. Too easy to pass without trying and makes groupworkfrustrating
- Avoid activities that are silly like downloading second life and playing around in it for 40 minutes. Make sure the TA's know what to do, there where times when I would ask questions and the TA simply did not know the answer. The grading system for the videos was frustrating, when I did not do well on one of the videos I asked the TA's and they said I lacked enthusiasm, which was sad to hear, I spent an average of 5 hours per video, used the video studio in Sivermen and had a powerpoint presentation. If the issue was that I did not have enough info or inaccurate info or something like that, then I would understand. But to say I did not meet the standards because they did not believed that I cared was very frustrating.
- More organization
- Make sure all activities work before we start them.
- Provide free booze in class.
- too many videos at once felt overwhelming
- None
- - When an activity involves something like coding in a new language, it would be useful if the videos taught us at least the basics of the language so we can go into the activity with some background knowledge instead of it resulting in us just googling for the answers and not really learning anything. I understand that it is useful to know how to google effectively but this just results in us not really learning anything. - If there is any way to standardize the grading of the video assignments it would be extremely useful. I think that the "excitement" aspect of the videos is a bit too subjective, sense let's face it, these videos are supposed to be

Please comment on course improvements you would suggest. -

informative, not entertaining. Also if possible the "originality" aspect of the grading should be less subjective. - If possible, split up the class into more classrooms for the activities or find a bigger room. Although Bert's may have been the biggest and best option, the rooms were still really crowded, especially on the high-top tables.

- Give us an actual Computer lab instead of meeting in a Cafeteria. Do more in class literal teaching rather than ambiguous Instructions

- The in class activities were mostly useless and too simple. the class didn't allow for someone with no coding education to progress so i mostly sat and watched my table mates do the work

- none

- More organization and better planning. Maybe setting your a real plan for the course as a whole.

- make the grading of the videos more fair. Some TA's like something some dont....

- They should take attendance by swiping your ub ID, rather than simply typing in your email. Also, should inform the TA's more thoroughly of their task and of your's during the activities

- I feel like we should have had more organized activities, with more guidance and input from the TAs

- nothing

- Add a search for videos. Now quantity of videos is more than 300, which made it hard to review certain video we watched long times ago. If I can search name of video, that would be more effective.

- -More grading of actual class work, not just a participation grade, so that we can't just goof off for an hour -more spread out deadlines for the videos (fewer per deadline, but more deadlines per week)

- You might want to add quizzes or some sort of assessment if you actually want people to watch the videos.

- lesser number of students at a time

- Some activities were weird

- End the "flipped classroom" experiment. It was a course defined by a completely unorganized staff and therefore caused confusion. Most student don't watch the videos. They just wait until the button turns blue to click and and continue doing whatever they were doing. Although the "flipped classroom" idea is a good idea, it was poorly executed and therefore should be scrapped. If this class was a traditional lecture I would have got much more out of the class.

- Make people take quizzes on the videos. Some of the more dishonest students were using auto clickers.

- The videos be more than just informational. Would rather do something, other than sitting through hours of dry videos

- Longer video deadlines MORE TAs

- More organized, class also was a "Ub Seminar Course" but seemed more of a CSE class

- The only improvement I would suggest is better organization but there's not really a better way to do it.

- I would improve on the time management of the class activities.

- Nothing

- Get rid of the professor, he's not good at his job. The TAs do a better job and teaching and helping than he does. Stop doing the flipped classroom, it doesn't work. People just use a program to watch the videos without actually watching them.

- I would suggest condensing the videos. Due to there being so many, most people don't watch them or do other work while the videos play in the background at low volume. I would also suggest re-evaluating what the students taking the course are capable of. Most of the beginning activities were way over the heads of many people in the class.

- The course needs more organization between the TA's and the professors.

- Better grading. Not solely based on T.As opinions

- The activities and video assignments were a nice idea, but I think in the end they just weren't very effective. There is little motivation to do well in this course, as there are no tests or finals, but only video projects that are graded with wild inconsistency. I can see the goal they had in creating this seminar, but I don't think it benefited many students. If they were to increase interaction between the students and the professor, and maybe have more concrete goals for the students, then this course could become helpful in the future.

- It could be organized better than this , the videos could be made more interesting and more detailed .

- I would rather have lectures.

Please comment on course improvements you would suggest. -

- Grade the projects fairly and not opinion based
- Too fast
- I would suggest making the first few classes of the year more interesting and worthwhile. This would help the class over the course of the semester by reducing the number of people that believe it to be a busywork course.
- Organize the lessons better.
- That being said (the previous comment), I'm sorry but half the TA's were no help at all. For example, one class we had to set up a website and I was naming it wrong, I called over the TA and asked him what to name it, and after 5 tries it still wouldnt work. He ended up calling over the main teacher and he was like "oh just add this" and it worked. That took the whole class and I was supposed to get a lot more done in that time. Also, towards the end of the semester the instructor seemed to be running out of ideas for videos, which we had to watch weekly, and was making some just so we had to watch some, even though they were kind of irrelevant I think.
- Some group activities didn't teach a whole lot. Group activities were hectic in nature.
- Good
- Everything needs improvement...

D
- No more video assignments.
- Some of the in-class activities didn't engage us with our peers so much as just give us a work procedure to follow for the class. Perhaps the frequent swapping of groups discouraged peer connection and discussion.
- Videos should continue automatically.
- have longer videos instead of many videos
- I didn't find most of the activities to be particularly helpful
- None that i have in mind
- Better organization in the beginning of the course. In the first few weeks there wound up being a lot of technical problems that caused setbacks.
- No video making, didn't help at all.
- Have set lectures. Would have preferred to learn html and java script in depth
- Do not do a flipped classroom, it doesn't work in teaching us at all
- There are 4 main components of this course. I would like video reminders on the day of the deadline of videos, only if you are on the subscription list. For video watching and video making. Majority of us miss videos for either procrastination, forgetfulness, or not knowing videos are up. A subscription list would be beneficial for a person who is aware of their problem and needs that extra notification, I wouldn't find the notification annoying, but I would definitely would change how I go about my day in order to get the assignment done. Even though I am routinely in this class, other courses have my attention too, especially in times of exams, and these course videos are swept under the rug. I've gotten more on top of the videos close to the end of semester though, which is good. Attendance doesn't need to be helped with. Also the website building is fine. I just stress about the videos.
- At times I felt what was going on in class did not align with the videos making me feel slightly lost. But it was a non issue as I would eventually figure out what was confusing me.
- The videos got less engaging overtime, even though the material changed. Something about the formula of always having to watch videos every week became boring. Additionally, some of the topics covered in both the activities and videos really didn't feel like they warranted attention and seemed like filler content. There should also be a better explanation of the basics of HTML throughout the course rather than in just the later half if HTML is to be focused on again (next seminar class to take this course).
- More projects
- More explaining of certain keystone topics
- Attendance system was complicated
- Don't make the due times for the videos so early in the day. The video submission process should be able to be accesed from the day the class begins, that way students dont do the video early and then forget to submit it.
- Better make students can work with HTML first then students can make the website afterwards.
- It could be more organized, and the grading and absence system needs to be greatly improved.

Please comment on course improvements you would suggest. -

- Course was very disorganized, and activities themselves were not always functional. I understand why they ended up being this way,

- Remove recitation, it was not useful or applicable in any way and was a total waste of time.

- We have been watching a lots of videos online, and to be honest I don't think everybody is actually sitting down and watching all the videos. And you can't check too. Also, we never actually talk about what we were watching during the lecture so it's very easily for those people who did "watch" the videos but never understand it.

- Again, the video grades are too harsh.

- I would suggest correlating the activities more with the content presented on the course website. Additionally, despite the large class size, the number of UTAs present for each activity session seemed excessive. Lastly, recitation sessions should follow a fairly strict routine or should be run as a normal recitation wherein students who require help can ask questions, but those who do not shouldn't be required to come.

- More interesting lecture videos.

- Not video based

- Better grading on the videos

- It needs to be organized properly. My recitation every week was just the recitation leader saying that how he doesn't like how the class is not organized and answering " I don't have any info that you guys don't have" to every question or doubts we had about the class.

- More attentive to student progress.

- None

- Not doing the same thing every day

- Watching videos

- Video submission reminders instead of last minute email saying it's due.

- N/A

- Well they should not of changed the syllabus during the last month of class. We started off with a bunch of UTAs for the class but by the end we ended up with like 5 of them. Jeff being one of the lead professors in the beginning of the course ended up not even showing up for class about half way through the semester. Overall the UTAs that showed up to class were helpful when you needed it the class was very disorganized. Screamed like by halfway through the year non of the teachers or UTAs cared about this class.

- Give us more time to watch the videos. The deadline used to be midnight but it was pushed to 9pm. Make more video walk-throughs so we can understand the activities better. I struggled with command lines and making a webpage. Have the TAs know all the steps of each activity so there is no confusion with the students. I don't like being told to google my answers, because it can be overwhelming trying to filter what i need to understand. Maybe make worksheets with useful and more focused information for the students.

- The course improvements that I would suggest are to teach students the material more and give them more background than have them try to solve it on their own.

- Cut the the activities that involve running around campus. Most students found that to be a waste of time. In general, just cut activities that are honestly a waste of time. The Second Life activity? Yeah. Big waste of time. Stuff like that is useless and doesn't actually teach anything. The activities need structure and need to have meaning behind them

- Attendance taking was very poor, some people wouldn't get counted. Maybe have a sign in sheet? Also, I am sure that no one watched the videos and I feel bad because I would've been more interested in learning the material in a lecture instead of the videos. The activities were extremely hard for those who were not computer science majors and even those who were. I thought that the grading for the videos made by students could have been more appropriate since not everyone is outgoing in front of a camera. I also came in having the belief that this freshman seminar would help students get familiar with the school and it did not do that.

- Terminate the whole entire coarse.

- No suggestions.

- class itself was an experiment and the instructors didnt always know what was going on yet they werent lenient at all with projects and grades

Please comment on course improvements you would suggest. -

- Most of the activities we had to do in class were very difficult and almost impossible for someone with no background in computer science to complete. I found the instructors very unhelpful and questioned going to class every class because I knew I would be sitting there not knowing what to do for a majority of the class.
- Even for students that don't have any prior programming experience, they ask you to learn a couple of new languages(Javascript and html) by themselves and then make a website which counts for a large portion of the grade. Also, minimum grade required for an A is set too high given that it's almost impossible to get near to perfect grades in our video submission assignments.
- I would liked to have seen the activities we did in class relate to that week's videos.
- Examples of correct videos to ensure that the correct format is followed for the video submissions
- none
- More relevant topics to work on.
- More instruction during activities.
- Less videos and a better deadline. 9 is a very akward deadline that really effected a lot of students.
- The attendance system can be improved
- less videos to make
- The class activities were hit or miss; scavenger hunts were not well designed. The actual computer tasks, however, were interesting and strongly interactive.
- N-A
- Video grading didn't work well. Ratings were subjective and not based on the effort put into the video, and it was hard to know what I had to do to get a good grade. Recitations were almost pointless.

For what primary reason did you enroll in this course? - Other (please specify)

A
- (Other (please specify)): UB Seminar
- (Other (please specify)): Advisor put me in it.
- (Other (please specify)): I didn't choose my seminar so my advisor did it for me

B
- (Other (please specify)): Seminar is required so I chose this one
- (Other (please specify)): wanted to see what this class was about
- (Other (please specify)): Required seminar only because the other seminar for engineering was full.
- (Other (please specify)): Needed a seminar
- (Other (please specify)): I transferred from another class and this class happened to be the only engineering related seminar. (I am not a computer science major)

C
- (Other (please specify)): It seemed interesting
- (Other (please specify)): It was the one that interest me the most
- (Other (please specify)): I just get interesting
- (Other (please specify)): I had to take a seminar and its title was decivingly cool
- (Other (please specify)): Freshman Seminar

D
- (Other (please specify)): My Counselor
- (Other (please specify)): Interested
- (Other (please specify)): Thought it would be cool

If you were dissatisfied with any of the instructional facilities, please explain: -

A
- 1. TAs were not helpful
- Holding activities in a lunchroom is unacceptable.
- too much people in one room man
- WE WERE IN A CAFETERIA
- There's a lot of people in one space. It gets crowded after a while.
- nothing
- I wasn't that bad.
- classroom technology: lack of charging ports. classroom space: not being conventional isn't enough. unconventional stuff must also work. the cafe just did not.
- no i didnt
- Being crammed into berts was not effective. Finding groups was difficult since no one would sit where they were supposed to.
- Please have a legitimate classroom. This place is terrible and doesn't have outlets. Don't require people to have laptops, man. Some people don't have laptops.
- The Bert's cafeteria was too large, and finding our assigned groups was like finding a needle in a haystack, especially in the other room. The floor plan needs to be fixed ASAP if Bert's is ever to be used again.
- We worked in a cafeteria...
- Our "lecture" hall was located in bert's cafeteria...
- Recitation was fairly pointless
- too big of a class
- -No lab space, so it doesn't apply -Technology was my own, so I can't say anything about it without being biased, though the programs they utilized weren't the worst either, they were alright most of the time. -Recitation was a fucking joke and a half, little to no participation from students, half the class, who were of other races or ethnicity, didn't even bother to show up, instructor tried his best to be helpful and speak on some topics instead of wasting time and I applaud him for that, but I don't think he was very effective, since it didn't seem like it was very in-line with went on with the weeks videos. He spoke on a great range of topics, or ones where he has a very personal connection, but I can't say it felt like what he spoke about was on the 199 level, or even related to the weeks videos at all. Didn't sound like it. -Classroom was insanely massive, and if you got good internet in wherever you were working, you know so you could actually do some of the work that week, you were fucking lucky. Could have used more sections, so you didn't have to try cramming 300+ people into 2 rooms. Lot of emphasis on groups and group work, but most of the time there was no working in groups or as groups, it was a lot of individual work just with other people around. didn't feel like groups were particularly "balanced", as I could be in groups where people weren't CS majors with no idea what was going on or what they were supposed to do, or with people who had far more experience in the CS field who blazed through activities with no issue at all.
- who the fuck uses a cafeteria as a classroom
- it was in a lunch cafeteria, we had to bring our own equipment
- We need laptops for the class, but there are no ways to charge it.
- We were put in Bert's cafe
- No
- Bert's is not the best place to use a large amount of laptops. We slowed down the wifi and some of the tables were much too small.
- Bert's was way over crowded, it was managed well, but there were no outlets and tons of people. There was no way to charge your laptop which were almost always required.
- Some of the TA during some activities had no clue what to do how to help or even what the activity was about
- no outlets
- Requiring laptops/phones $$$
- Bert's + too many students = Very Dissatisfied
- No classroom tech used, besides personal computers.
- Instead of reporting to the scheduled classroom on our schedule. We were instructed to report to Berts dining hall for the entire

If you were dissatisfied with any of the instructional facilities, please explain: -

semester. This wasn't all that bad, except for the fact that, on occasion you were somewhat forced to work at tables with food on them. No the biggest problem but not really enjoyable. The dining hall also did not have power outlets, and although this was stated in every email with groups assignments, it was a pain to have to manage your day as to have an hour of battery life for your laptop.

- Classroom was a cafeteria...
- Having class in a dinning hall is a bad choice.
- -Tables in berts cafeteria are not really comfortable. -And its almost always confusing to locate our group.
- The class was very cramped for space
- this course overall was not organized well in fact very poorly. In my opinion this was the worst course I have taken at UB. I am very dissatisfied with this course.
- Bert's cafeteria is not a good learning environment.
- I did not find recitation useful in anyway.
- The class was held in Talberts, which mad it hard to navigate and left little room for using computers.
- No
- The classrooms were too small and separated, so we moved to Bert's. Bert's has horrid wifi, no electrical outlets, and was open to the public. Overall, not a very professional or enjoyable learning/work environment.

B
- We had class in a cafeteria.
- Bert's was crowded loud and it was hard to find assigned groups. There was not really any technology used other than own laptops. recitation space was small and cramped.
- Try to get a room with a lot of power outlets.
- There were no power outlets in Burt's.
- It was a bit cramped in the classroom.
- Packed into a lunchroom for class and extremely unorganized
- too crowded
- We were in a cafeteria with no outlets for a class that requires a laptop. Ugh.
- Having a class in a cafeteria is not exactly pleasant.
- It would be nice to have electrical outlets available in the classroom space in the future, or ways for those who don't own laptops (as few as that number is) to participate more readily.
- Having to go to Alumni Arena for a 50 minute recitation is ridiculous. Especially for a required seminar.
- The amount we needed to download on our laptops and devices because nothing was given to us such as a computer lab
- Nothing about this class was satisfactory.
- This class was very disorganized and the space was not comfortable.
- HAVE A BUNCH OF PEOPLE ON LAPTOPS IN A ROOM WITH NO CHARGERS. GREAT IDEA
- For the whole semester, we were in the cafeteria. Space was limited.
- We kept Ddos-ing sites we needed to use, the class size was too big
- berts map did not match actual tables. this made it difficult at times to find my group
- Some TA's were not very helpful.
- Meeting in Burt's is a very bad idea. Placing your bag on the floor and your laptop on the table is very gross. I would much rather have this class in a lecture hall.
- activities could not be completed to websites not working
- clostrophobic
- Bert's was a little hectic at times.
- Sometimes confusing to find the groups we were in, especially with no numbers on the table tops. Granted, that would be hard to do so I do not hold that against them...

If you were dissatisfied with any of the instructional facilities, please explain: -

- most of the time, we were crammed into Bert's cafeteria and it was very crowded.
- My recitation space was all the way in Alumni. Alumni is very far.
- Going in Bert's every day and finding your group was a joke. Make the seminar smaller and go into actual classrooms.
- A cafeteria was one of the worse venues for a class like this. It should have been taught in a lecture hall or a computer lab.
- The entire class was packed into Bert's hall.
- A class in a crowded cafeteria shouldn't be allowed
- Classroom was moved from a lecture hall to a dining hall, and the dining had no outlets for charging laptops and the wifi routers often were unable to handle the load of having a large class in the hall.
- We were placed in Bert's Cafeteria, a space with not enough outlets to run the course. Not only that, but a lot of the programs they have us run are very intensive on the computer, one particular activity being a time when they had us play Second Life, which drained everyone's battery and caused most of the class to have dead batteries before the end of the class. The recitation being in Alumni Arena is extremely inconvenient and very disconnected from the rest of the campus. It is very annoying going to and from Alumni.
- We had our classes in BERTS CAFETERIAS
- The numbet of people is way too many.
- There was 300+ kids crammed into berts the cafeteria
- We were in BERTS NOT A CLASSROOM. There were so many people in the class and they did not realize that they would need a bigger classroom so they just opted to use berts dining hall.

C
- We were in a cafeteria.
- Bert's gets too crowded in areas.
- We had class in a lunch room.
- I didn't like the fact that the class was taken place in a cafeteria.
- Very very very poorly put together.
- The course did not prepare for the amount of computers on the servers/sites all at once. Felt that they could've ran DDOS to see what the sites/servers could maintain.
- Could have a better experience using technology if terminals were available for charging electronics.
- The whole idea of shuffling all the students around a cafeteria every week was not very smart. Having temporarily set groups and tackling bigger projects over the course of two weeks would have been more ideal.
- We were in a lunchroom instead of the lecture hall.
- No outlets and not enough bandwidth you cunts.
- We sat in burts cramped every class not fun.
- We meet in a Cafeteria, Not a classroom, and several activities were intensive on hardware, so many students were unable to participate with older laptops.
- Bert's is crowded yo
- better place then berts maybe
- Bert's was a little crowded, and finding groups could be a hassle as well, but okay otherwise.
- It was a little congested in Bert's cafe for the 4pm class.
- Sometime it's hard to find seat matches my number. The only way to find it is to take a look at map on phone and and ask others. Attaching number on table will make it simple.
- Bert's is pretty gross.
- Hundreds of people jam packed into one area all trying to access the Internet from the same location caused Internet to be slow and hindered the students ability to finish the required activity.
- There were too many students in the class at one time and we did not really have a classroom. We simply used the Bert's cafeteria. Often times the sites that we used for in-class activities would crash due to the large number of students accessing the

If you were dissatisfied with any of the instructional facilities, please explain: -

sites at the same time.

- We worked in the cafeteria.
- The class was held in Bert's...
- No, it was the best way to fit a hundred groups.
- Bert's cafeteria got very crowded. There were no wall outlets.
- maps were not clear
- We were crowded in berts cafe
- The facilities were too small and lacked outlets to charge the laptops which were required for coursework.
- It's in a cafeteria. A cafeteria. How about a lecture hall or something a little more professional.
- Bert's is a very crowded space and is sometimes hard to concentrate in, but it's not a big concern.
- Bert's is a horrible plase to hold a class.
- There wasn't enough room in the lecture hall of everyone so we ended up going to Bert's, one of the restaurants. I'm pretty sure that's a sign there's too many students. It was one of the bigger lecture halls too, not one of the little ones.

D
- Bert's did not have power outlets but our class required us to bring laptops
- One of the TA is too lazy and doesnt have a idea what he's talking about.
- None
- We were in berts cafe rooms
- I didnt think berts was a good space for a computer science course seeing as there are no outlets to charge our laptops.
- We had class in berts cafeteria, very awkward.
- Not really a complaint, but maybe move to a room that has some computers to accommodate the few people that don't have fast enough laptops (and maybe fit the atmosphere of the course better), otherwise Bert's is fine.
- I was not dissatisfied with the facilities, on the contrary, I liked having class there.
- N/A
- The class wasn't even in a class lecture hall or room it was in a cafeteria
- There was construction going on outside of the window of the cafeteria. We were also taking up a public space and would have to kick out students that weren't in the class.
- The class itself now takes place in Bert's Cafe which is much more convenient than Alumni, but the circle tables are way too small for a group of 4 to all have their laptops out, especially when you get some people that 17" laptops. Also, it is a Cafe after all, so sometimes the assigned tables are gross and have food all over them. I think finding a new location for the class itself would be beneficial.
- There are no outlets in a class where you need laptops. The class room was a cafeteria.
- berts cafe had no outlets
- Not dissatisfied.
- The class was in an actual diner room/restaurant. Where tiny four person circular tables were magically supposed to have four people working on there own laptops, while TA's mindlessly walked around the room not paying attention at all to what the students were doing. I'm convinced I could have watched a full length film every day in that class and not a single TA would have noticed.
- not a lot of room in berts

Please comment on how effective the instructor was in teaching this course. -

A
- Geoff's online videos were well-produced and conveyed the info he wanted to convey rather well. Unfortunately, any questions asked on the forum were usually met with a short, snarky, or sarcastic response, and sometimes simply led you to Google.com. Totally unprofessional and unwelcoming.
- He was for the most part effective to me in this course.
- The instructors seemed to have in-depth knowledge of the material but this didn't always translate to the TA's being helpful.
- Honestly not really effective. I did not learn that much in this class. The size of the class might be one of the reason why students do not get enough supervision/attention. I have to admit it, he has some good ideas in improving UB in computer science area
- He was very effective I learned a lot about the internet.
- Teaching us knowledge clearly
- Very enthusiastic about the class, but could improve teaching methods.
- The instructor for this course was not effective in teaching the material.
- He really taught only through videos, I think there were too many students
- He was pretty good. But the course sucked.
- Not very effective
- He shows us many new stuffs about the IT world.
- Instructor Challen
- All the lectures were spot on and were explained very well. The assignments were desinged to give the students a bit of autonomy when completing them, however did not accurately specify the quality the professor was looking for leading to general miscommunication of what was to be expected on assignments which lead to poor scores on assignment for the class in general.
- Somewhat, never really saw him.
- He was very effective, as he taught a lot during recitation and during class.
- Not being able to see you teach in front of class was a let down. I was not able to meet you and being unhappy about the class made me partially dislike you, since you run the class.
- His videos were clear and informative.
- Pretty good. Much of the stuffs involve self learning though like figuring out how to use Linux terminal.
- He was enthusiastic about his course and the topics presented. If you paid attention you would learn the material pretty effectively.
- Very effective and well spoken
- Organization was poor
- He was somewhat effective.
- he was effective
- Did a great job. All the videos were enthusiastic and got the point of what it was about. Its a lot to pack into 5 minutes, but he did well
- Effective
- He's very passion in his lesson and recording video for us I think he is a very nice teacher
- the videos were good
- not very effective with the videos
- I enjoyed the video presentation system. I made learned relatively laid-back and still provided vast amounts of information.
- The way instructor hopes student to completely rely on Google to search isn't as effective as just teaching the concept. Google is a great place to learn, but the information it contains is way too much and not concise enough.
- Seems confident enough to teach the course competently but unnecessarily arrogant during office hours
- Eh
- I had him for recitation, he was great at teaching that but I don't think the videos were as effective.
- I liked the new system of teaching through videos. Especially when the videos were interesting and not him talking and not moving

Please comment on how effective the instructor was in teaching this course. -

- I enjoyed Professor Challen's instruction both in the online videos as well in recitation with him on Fridays. I think he has a real passion for this class and undergraduate CS education and he really put a lot of hard work into building this class. I thought his teaching method was very effective.

- Didn't see a lot of him in the beginning, discourse wasn't a very good forum.

- I am able to learn a lot of things about internet through his videos.

- Some of the activities made no sense as to why we had to do them and most of the other ones where a complete waste of time even if they had a clear objective. There was a place to talk about the course but usually no arguments would be heard. There was no clear office hour posting just emails once in awhile. Would not float around during class and usually stayed in one general location. The class has potential but overall a pretty big let down.

- He was informativ

- Effective

- Very Efficient.

- He had an interesting idea for a class, but it was obvious there was no organization.

- Answering questions and providing suggestions to us

- he was very effective in convincing me the spelling of "jeffrey/geoffrey" should be geoffrey since it sounds like a round word

- Mr. Challen went above and beyond what I expected a professor to ever do. He made his own website (a few, actually) that hosted all the content for us students to use to learn and discuss with others. He made my first semester of college great: - his class was fun. I genuinely looked forward to going every Monday and Wednesday - he was patient and understanding. I had a scheduled conflict and he made siren it was resolve during right away - he was just a great teacher overall I'm really sad to hear the news that he wont be teaching next year... that really disappointed me.

- You tried. You really did. But you didn't always do it well. Your videos were alright. Most of the time, until I started failing to be able to understand them halfway through one weeks videos. Maybe that's my fault. Maybe I wasn't attentive enough. Or maybe I just didn't understand. Maybe I was just distracted or bored and wanted to get it over with. Doesn't matter that much now, since they're almost over. But keep that in mind next year. Your activities switched from ridiculously easy to back-breaking difficulty. The difficulty curve felt insane at times. It didn't feel like it was fair, like a good introduction to CS and to college. It felt like it put a lot of people off, both from the CS field and college. Sometimes, I just sat there doing nothing in those activities because they weren't explained well at all, and I couldn't figure out what was being done wrong. Remember that too. And remember this. You tried. I appreciate that, I really do. You put in a ludicrous amount of work, into the class site, into the content of the videos and activities. I respect that. But try harder next time. Oh wait. You won't be.

- Mr. Challen was one of my favorite instructors from my first semester. I was very impressed with him, and felt that he was one of my most experienced teachers.

- useless

- I think he tried, but the activities were overly complicated for certain people and the videos, although interesting, were unrelated which is why I feel people were finding ways o get out of watching them. In terms of discourse I like the idea that he was able to answer questions for us one on one.

- He tried his best at teaching this class but it's online so it's difficult to actively teach

- The videos were explained well but all the topics never really and any application or use.

- I can't directly comment on how effective he is, because he only ever lectures us through videos. It would have been extremely effective if people actually paid attention to his all his videos, and the activities in class. However, 99% of them don't, and so his tactic of a "flipped classroom" failed. Other than that, most of the time when people ask a question on his Discourse forum, he replies with the most arrogant, condescending tone. This is not based on my personal experience- I have never asked a question on his forum. This is based on me reading every thread that he has ever replied to on his forums, and judging based on that.

- very effective, as long as student follow the instruction that he gives via email

- Never spoke a word to him.

- The videos were fine at first, but they eventually began to drag as the weeks went on. I feel as if the video lectures would be more effective if they were more succinct.

- Not very effective. His TAs aren't the best at known ng how to help students and because the class is so large getting to him is difficult.

Please comment on how effective the instructor was in teaching this course. -

- Not very effective. He wants enthusiasm from the videos that we make, but his videos aren't very interesting or enthusiastic.
- His videos were a bit dull. Not very exciting or interesting.
- He did a good job in regards to the video but was not involved in the actual activities.
- Professir Challen has a strong understanding of the content being taught, and is enthusiastic while presenting it to students.
- The instructor was very effective since he has taught me the fundamentals and basics of the topic covered in the course. Geoffrey's videos have taught me a lot about how the internet works.
- video were effective way to teach
- 6/10. videos interesting to watch but with no text material and an extremely diverse set of topics make it hard to remember or learn well a skill or information.
- You were fair and efficient.
- so so since he was talking through the video, it does not have very powerful effects in a term of learning. I think i would be better to learn face to face in a class
- The instructor was teaching very well.
- He's my personal hero and should receive a raise, please give this man more money/ authority. Great man
- effective
- His videos were helpful and fun to watch. I've learned more about the internet thanks to his lectures in his videos
- I don't personally remember ever meeting Geoff in person during any activity or recitation.
- 1. Knows what he is teaching 2. Quite helpful
- Superb
- very effective
- The video lectures were very good and straightforward, but sometimes it seemed that we were not given enough information for the activities.
- He was very committed in making videos and always helping students

B
- He is like one of the best teacher i have ever had in my life. I love the way he did the CSE 199 course.
- I never even got to say hi to the guy. I dont even know him. He did not teach the class. He just put his class online in videos. Videos do not help me learn. If the videos were fun to watch, I would watch them. The other proffesors werent any good either. The only professor that I liked a lot was Andrew Hughes.
- Gave us assignments but didn't give us rubrics based on that assignment and then graded us very poorly because kids didn't understand the assignment because they was no rubric or any guidelines
- Effective on online video assignments but not on descriptions of activities
- Videos were very effective
- He is arrogant
- He uploads a large multitude of videos online for students to view, but a lot of these videos are fluff/unnecessary.
- Very effective. Knew the course inside and out
- effective
- Effective. Not very approachable
- Very effective. the flipped classroom taught me a lot about the internet
- He organized a series of thourough videos on a variety of topics that students should learn and set up a series of activities to give students the chance to apply what they learn in real world situations.
- Very effective
- During "class," he basically just walked around and watched. Some of the videos he made were okay, but the restrictions that he put in place for watching were abysmal. In addition, some of his forum comments, personal comments, and websites he told us to visit contained questionable content that did not reflect the professionalism of this University.
- Just fair I would say but in some of his video lectures, he said things from his personal opinions irrelevant to CS or technology that

Please comment on how effective the instructor was in teaching this course. -

are somewhat offending.

- Professor Challen was good while presenting information on the video format, however the labs in class were not developed enough.

- Geoffrey made a good attempt to try and make students watch the videos, but reverse classroom just doesn't work for most people. Everyone I talked to just binged through the videos with their computer on mute. You could also sense he was arrogant about himself, all students I talked to about this agreed with me.

- It's mostly TAs

- he wasn't really teaching us anything really. since the method of learning was through watching videos we weren't very engaged

- Geoffrey is an amazing professor and obviously a very intelligent man. He is funny and very caring for his TA's and students. It is so sad to see him leave.

- Excellent professor and sad to see him go. He taught with a purpose and was very helpful and engaging with students.

- I learned a lot from the course. All the videos were well explained with drawings to help visualize concepts. The activities also helped me get famiwith different coding languages and internet routing.

- Geoffrey Challen did not have a big part in anything that I learned this semester. He did create the videos, however, which is impressive and appreciated. But because of the way that the course was set up, there is no incentive to pay attention to the videos or learn from them.

- He had great knowledge about the course which was obvious in the videos we watched weekly and our activity instructions

- All I can say is I'm not surprised he didn't get tenure

- He was fair based on the number of students he had to teach.

- He was making the great videos. The content of videos is trustable and meaningful.

- Very nice, welcoming, enthusiastic and passionate teacher. With the videos however, I felt as if I was teaching myself too much throughout the course.

- He is a god. Should have gotten tenure.

- I have seen him like once throughout the activities

- Geoffrey Challen is a horrible indturctor

- Professor Challen was effective in teaching the material but it could have been better. Having all the material be in the weekly videos was very tedious because it was very easy to get distracted and since there were so many, it was hard to be enthusiastic about getting them every week. However, I have learned a lot about the internet and wish it was taught in a better, more effective way so I can recommend this course to another student.

- His video teaching is very clearly, and it is good.

- He does well

- Mr. Challen is bias and there are too many videos to watch. Most people do not watch the videos. The in class participation is a waist of time.

- he likes to teach on the video and he likes to make activity

- n/a

- Most of the videos were well done but some of them were confusing.

- He was the bomb

- Challen presented the course material very well with his weekly videos and he allowed for me to learn a lot about the internet with his assignments. On the other hand, there were times where the assignments were very disorganized and confusing.

- Professor Challen is very enthusiastic on the topic of the internet. This makes the course video lectures a lot easier to watch and comprehend.

- Good video lectures, but the activity topics were sometimes too far from the lectures set out.

- A very effective teacher

- The videos were very clear and straightforward, but also managed to be interesting. I didn't talk to him as much as I would have liked to (my fault not his), but he seemed like a cool guy who knew his stuff.

Please comment on how effective the instructor was in teaching this course. -

- Pretty good

- He was fairly effective

- Better to teach classes in person rather than in online videos

- With his online videos, I was able to follow and understand the topic at hand. His explanations were detailed. The group activities engaged every member to play an active role as a group.

- He was very clear on the concepts. The only problem with the course was that it was poorly organized.

- He didn't teach me much except through the videos but even then it didn't feel like I really got the info from him so I never really got to meet my professor

- He is a good professor

- He is very passionate about the course but sometimes uses more challenging concepts that basic no knowledge Students will not comprehend. Overall he's good though

- Pretty effective. Though I would suggest perhaps that the videos link to articles or something so people can read as well as watxg

- Overall Geoffrey W Challen put a lot of time into making his videos but he could work on making them about more meaningful and importance topics.

- I rarely had any interaction with Mr. Challen. The videos were not effective in helping me learn the course material.

- I didn't learn much of anything

- Very effective. Will miss Geoff next year.

- walking around to see how the kiddo working

- Somewhat

- The video lectures were quite enjoyable to watch, and conveyed information quite clearly while leaving room for students to further explore ideas that interest them.

- The videos were effective when people actually watched them.

- Good enough.

- He makes great videos, but hes not a teacher

- He did really good jobs on the videos.

- He did pretty well teaching the course and put a lot of time into the course as well

- Taught videos very well.

- He was effective

- Mr. Challen is very knowledgeable and taught the class a plethora of knowledge in online videos.

- He was very good in the videos. I highly enjoyed them. However the activities made the class more difficult than it had to be

- He did very well in the 300 or so videos he made in making the course fun and interesting.

- Barely effective because he wouldn't spend time with the student. videos he made were useless. didn't teach

- He was effective based on how explained the subject through his videos.

C
- The videos he makes are very insightful.

- The only time I actually talked to him was about the website thing I said earlier. Other than that I only saw him through videos we had to watch, I'm sorry but I can't really ask a video questions if I had any.

- I only ever saw him in the online video lessons, but even there, his speech and voice were very effective in making me learn the material presented.

- Good

- Was not that effective, nor did I find him approachable, based on how I have seen him respond to other students.

- I would like to have a solid opinion of professor Challen, but since he never actually talks to us in person makes it hard to evaluate him. I only see him in the video assignments, but it would be better if the professor would actually address his students directly sometimes and not leave everything to the TA's.

- He was quite effective but as I wrote before , the videos could be made more interesting and more visual .

Please comment on how effective the instructor was in teaching this course. -

- None existent in teaching the course he only makes poorly made videos he expects us all to watch yet no one does.
- Never taught directly by instructor, mostly interacted with TAs.
- He is speaking very well in the lecture
- He was quite effective.
- Challen did a good job at teaching the material for this course.
- If students watched the videos, he was very effective. Otherwise, he was nearly non-existent during the actual class activities.
- The videos he made were clear and covered a wide variety of topics.
- He was not effective, the class would be so much better without him. Replace him with a professor who actually cares about his students success.
- The instructor taught us well visually through his videos.
- Dr. Challen created videos for us to watch which were very effective in their nature. He was always excited to be teaching us new content.
- -worked well with students -easy to approach for help and encouraging of students to ask for help -made expectations/assignments easy to access and understand
- The instructor was dedicated and took great care to explain everything in detail.
- Didn't see him much but his videos were good
- Videos are boring to watch and hard to pay attention to. Vast majority include the professor standing in front of a whiteboard.
- Many students had little interaction with Geoffrey. Some of his comments were unprofessional. Some of his lessons felt like a complete waste of time, often forcing students to play video games to receive credit for the course. Very unprofessional.
- best instructor NA
- The videos for class were not particularly interesting, yet students were held to a high standard for their video assignments
- His Ta's mostly taught the course, they often just told us to use the guide and didn't really help themselves.
- The way instructor teaching me is watching video. Video is good, and subtitle helps, too. Teacher always has passion in video. So quite good.
- gud
- He was extremely effective! His style of teaching suited many different types of learner. He was engaging and it was fun watching the lecture.
- He gave some really interesting talks and kept me intrigued during the videos. Material is presented well.
- he tried really hard to create this class. props to him
- The instructor was passionate about the course and the course material, however, due to the size of the class and the way it was initially designed and structured it did not feel very encouraging to spend time focusing on that class
- Taught the material well but had no interaction with the students, except if you went to office hours. I don't feel like the course really had a professor.
- I think He should have taught in class more often, and that the class should have been Him teaching on tuesday, Us applying it on thursday
- He never taught me a thing outside the videos and. Even those werent very effective in teaching
- I'm not sure
- good
- Quite effective.
- It was very effective.
- GIVE HIM TENURE YOU FUCKING BASTARD CUNT UB MANAGERS. DIE IN A HOLE, UB.
- His passion for the course made me want to learn about it more
- Never saw him in the actual class only in our videos.
- His videos were really in depth

Please comment on how effective the instructor was in teaching this course. -

- Was never present in class, only in videos
- Although the reverse classroom is a very good way a teach a course, most of the videos were pointless and seemed like filler criteria that we never used. Some of the activities we had to do could have used a lot more instruction which the videos certainly did not provide.
- He created tons of material to learn from
- Mr. Challen is very helpful by demonstrating material and providing internet videos for students to learn from. The internet videos are helpful for reviewing material that was forgotten.
- He taught it well because his videos were broken down into so many and not that long. This was really useful because I could watch a handful and finish the videos over a long period of time rather than spend 30 minutes per video.
- I feel like Mr Challen took a risk with this course and it went down in flames rather quickly. It was a good attempt in his way of shaping the young minds in CS but I feel as if once he did not receive his tenure and released his blog post there was a lack in effort for the activities in the course. We went from more harder stuff to more simpler things. I have no complaints in this but I feel like they could've been more a mix than a distinct difference between the two time periods.
- Good videos
- There was no reinforcement behind the material. Also, Geoff Challen is the biggest narcissist I've met. It obvious to all the students why he didn't receive tenure
- The instructor was very effective teaching this course
- Very effective. The informational videos he made were very easy to understand.
- In this class, we need to make our own video. He always give us suggestions.
- He was very effective and very very knowledgeable
- 4 outa 10
- Geoffrey connects and helps students in this course and does everything in his power to give us the best experience.
- I thought he was kind of a dick at first, but it seems like he's an ok guy.
- He taught this course really well, and by making those videos taught me a lot.
- extremely informative videos
- It was all videos online if you didn't get it, re watch it.

D
- He's an excellent teacher, that's all I gotta say and the fact that he'll not be continuing at UB hurts somewhere deep
- His online videos were nicely done. Learned a lot from him.
- Very effective
- He was pretty good.
- Enthusiastic, online videos helped.
- Very effective in teaching through videos, but not in class.
- The instructor was a leader. He was very friendly and guided his team efficiently .
- fair enough
- Before I came to this University I had the mindset that professors were these well-rounded, respectable, and experienced people. That completely changed when I met Mr. Challen, who was one of the rudest professors I've met by far. I was only able to see him in class maybe six times throughout the whole semester because he's literally never at class. I don't even think he's been at my 9 A.M class throughout the whole month of November. When he is at class, he hides in the back of Bert's Dining Room and doesn't say a word to anyone. He expects people to understand the coarse through his extremely dull videos of him talking in front of a white board. Grading is a laughable joke in that class, where you show up, try and do an activity, get credit, then leave. Most people in the class show up just to get credit for the activity.
- it was a flipped classroom so he just made a bunch of videos we had to watch
- Granted all the learning was based on online videos that were not interactive I didn't think it was too effective.
- I have never met him in person so I don't have any comment.

Please comment on how effective the instructor was in teaching this course. -

- The professor was really effective at teaching this course and taught us about the web.

- He knows his stuff but taught as though we all were computer science majors.

- He didn't hasn't shown up for class in like 2 months

- N/A

- His videos and lessons were very on point and precise

- Although the class was boring and ineffective because of the flipped classroom, Geoffrey did his best in trying to convey information through his videos.

- He gives a lot of information about what a student is attempting to do, which is very helpful. The video topics are questions we all ask about the internet, which helps discover new terminology and ideas. The videos posted on the course site is something I wish go back to in the future. If Geoffrey keeps them for students post-enrollment in this course.

- Firstly, although the videos he made were informative and interesting to watch in the beginning, I started to grow tired of the same format of videos. He presents the topics well, however they began to get a little stale after a while. Also, a small amount seemed like filler content. This generally applies to the activities as well. Some seemed to be more significant than others (learning HTML vs. playing Second-Life).

- He is a good teacher

- Did not interact with him much

- i think he did an alright job, but not the best

- Mr. Challen is very helpful when students does not understand the materials.

- I don't know if that just how it works, barely see him in the class we were just assigned to the TA, he was only making the video for us to watch

- He was fine.

- I barely saw him in the class, but his TAs are fine.

- The material wasn't hard, so teaching it wasn't going to be a challenge, even for someone new to teaching. His teaching skills are fine, but hes arrogant and this trait comes out quite frequently to his students, and when hes not being arrogant, hes off in the corner not interacting with the students. The TA's run the class and the recitation. Hes just a voice and face in the videos, and when he does exist in class, its usually unpleasant

- Dr. Challen was very clear and concise in teaching the course and the things we were expected to understand by the end of each class and the course as a whole

- He was pretty effective in introducing us to content related to the internet and it gave me a path to delve deeper into the various aspects of the internet.

- He was effective enough.

- pretty effective

- Great effects!!!!!!!!!

- Seemed incredibly pleasant and very knowledgeable about all presented material. I would take a class taught by him again.

- good.

- Somewhat

- The instructor put in a lot of time outside the class to make sure our learning experience was as engaging and interesting as possible, and effectively put in an effort to teach the whole of the internet, through the internet.

- Normally effective.

- I think he's a good instructoreason overall.

- The videos were helpful

- Fairly effective

- Only really was involved with videos. During class time did not see him much

- Mr. Challen is passionate about the internet and as a student I could clearly tell. This course was just a mistake by me but Mr. Challen did a great job.

Please comment on how effective the instructor was in teaching this course. -

- The methods he used to teach were helpful in understanding the course overall.
- very effective, I actually enjoyed listening to him

Please comment on how effective the teaching assistants(s) were in helping you meet the learning outcomes of the course. -

A
- Most of the TA's had no idea what information was in the lecture videos, so they did not know what information was given to us to wo
- effective
- 1. TAs were not sure of what they were supposed to do
- Some TA's are very useful, other would rather devote their time to furthering their tinder profiles than read activity reports.
- They were good, some seemed lost
- they replied all of my questions
- very effective
- Decently helpful
- They were helpful.
- awkward interactions usually. the nature of the course makes it hard for them answer and for us to ask intelligent questions.
- specifically in the lab, they are super helpful but since they cannot tell us the answer, i had to spend time on thinking about it, then i c
  ask another questions.
- They were helpful in telling me what I was suppose to do during the activities and have always helped me through whenever I got su
  certain part of an activity.
- Very effective
- T.A.'s were friendly and always around but when asking for help i was often told " look it up" or " you would know the answer if you wi
  videos" even though majority of the time i was just confused by the video and needed clarity.
- ok
- TAs often wouldn't be able to help and have to call a professor over.
- The teaching assistants were very effective in helping me meet the learning outcomes of the course by helping us understand more i
  we did in the activities in the week.
- Everything went well, I leaned a lot more than i expected to.
- They were alright
- Certain TA's were awkward and dull. A few soared beyond expectations.
- teaching assistants are not very helpful
- I didn't ask a lot of questions but when I did some were more helpful than others.
- I felt the TA's had a lot of knowledge about computer science and the internet.
- Some knew what they were doing, some didn't.
- See first comment where I overview everything
- The TA's were useful at times, however there were many restrictions placed on them as to what they can tell us. So most of the time
  Google things ourselves and even that did nothing. Overall, we learned almost nothing.
- They helped me with my website.
- some TA were quiet effective
- This course was new and very easy to grab. It was a new experience.
- better than class
- good
- The TAs seemed a bit lax and uninterested at times, which didn't help with the morale of the class.
- useless
- Not all the TA's knew what they were doing when we had an activity. They would also give a thousand different answers to one quest
  don't blame them seeing who poorly planned the course was as a whole.
- They were the most helpful with questions and concerns relating to activities, but still never gave us direct answers. Which is fine, but
  people who have no experience coding or are not in cse 115 in the time, they should have helped more than they were instructed to.
- Effective

Please comment on how effective the teaching assistants(s) were in helping you meet the learning outcomes of the course. -

- They were generally helpful

- There are many assistants to help us.So it's really helpful

- I find that some of them do not have clear understandings of the course contents - some of them do.

- Being a brand new course, the TAs had never had the chance to attend it before, and as such, were rather disorganized and clueless whenever a student had a question pertaining to the material we were working with that class period. They were not required to watch videos that the students were, which most likely would have had them completely set to work with the students on anything they could needed.

- Helpful

- The recitations were a pretty big failure. They were supposed to be areas to discuss ideas. But it was a really inefficient use of time. I' have been better to listen to the assistant professor in a normal lecture or work on a programming skill during the time.

- Depends on who is the TA. A few act... Like they were suffering some mental disorder such as the one who seems to think himself as worker surrounded by children. His defining speech... "HELLO/ALRIGHT KIDS!!!"

- They were alright

- They were not

- I had the course instructor so he was very effective at it.

- They were pretty good.

- Most of them are helpful.

- During lecture, the TAs were always around to answer any questions I may have had during the assignments. The TAs were great to and offered assistance whenever needed.

- Not helpful at all, gives vague replies/flat out ignorant of the material they are suppose to cover

- He was a nice guy. He made sure he found the answers to our questions

- The teaching assistants were really helpful in case of getting students on track in activities

- Very effective when asked with help

- helped with activities

- Recitations were pointless, TA's ran out of discussion material within first 10-20 min of class. I came away with nothing valuable from recitations.

- My TA guy, Patrick Jones, was actually pretty cool and fair. He did a good job of explaining what was expected, what was due when, needed to do. He did a good job of explaining those, and trying to supplement the material of the videos and explain content and ans questions as necessary. He did a good job. I commend him for that, and you should too.

- Effective

- Most were helpful when needed.

- They teach us and answer our questions about the topic and anything about the internet world.

- Didn't know the material themselves.

- They weren't helpful st all. If they were it was only a very small percentage of them

- A large percent of TAs were very rude when answering questions or refusing to answer questions. In a course of this size there are b be bad TAs, however the number of times I encountered a issue and asked a TA for assistance, or for a hint, or any helpful input at a often met with a condescending "you should already know that" and nothing else. I understand that it was expected of us to problem our own and look on the internet for solutions to some of these issues. However more critical input is necessary to help the students i situation.

- No one showed up to recitation but the teaching assistant made sure we knew what was going on in the seminars and then after that about computer science related stuff.

- The TA's often didn't know how to do the current exercises themselves. Was very annoying when asking for help and they didn't give

- Some TA's were excellent at presenting information on the activity days, while others weren't as helpful.

- The teaching assistants did a very poor job of helping students. Over half the time the teaching assistants did not even know what the assignment was. Some teaching assistants were helpful, but most were not.

Please comment on how effective the teaching assistants(s) were in helping you meet the learning outcomes of the course. -

- Some days better than others.
- They helped me enough for me to understand.
- They helped a lot.

B

- On answering our questions as soon as possible.
- Some TAs very helpful, others not as much. Some TAs seemed to have little to no knowledge of actual course material.
- I feel like some did very well and others were not on the same page as everyone else.
- Rather than simply telling me the direct answer, the teaching assistant(s) create complex problems for me to think about before solvir together.
- Excellent
- They did a great job
- The Teaching Assistants were always ready to offer any sort of help; may it be answering questions giving suggestions.
- They assisted with doubts in the activities and assignments
- Some TA's were better than others
- A lot of knowledge that we can learn from this course.
- Good.
- In the beginning of the course none of them seemed to know what they were doing
- not very effective
- Not effective at all. Most of the time the teaching assistants did not know what they were doing.
- They were effective in giving out hints and help to students. Sometimes chatted around too much
- Mostly good.
- Many of the teaching assistants are not aware of what is going on therefore leading to more confusion among the students if a questi asked.
- The TAs were there to answer questions, offer help and guide the activities during the activity sections.
- Somewhat
- Bad.
- Ok
- Pretty useless. 9 times out of 10, they simply told us to google whatever question we had Which shows poor educational ability
- Some were good, some were too high on themselves and made students feel bad for not understanding the content
- Most of the time it did not seem like they knew what they were doing. Were not very helpful
- They were helpful when you did need help.
- They were pretty much the teacher's for the course so when we needed help they were there to help in class
- They were the actual teachers
- they didn't tell us much and they were vague with what they would tell us
- i dont know
- Some of the TA's were very helpful during class and in recitation, but others seemed lost when it came to the material and the exercis
- All of the UTAs were very helpful during class activities. I did not use them outside of class times.
- Very poor. My TA for my recitation did not engage us at all -- she gave us an attitude and even punished us by forcing us to have disc about things that have nothing to do with the course (she's had us have thirty-minute long discussions on winter boots and Buffalo wir patterns with the goal of boring us into talking about the course). Several of the TAs for the seminar itself (Evan and one of the TAs w refer to the students as "children") would treat the students very poorly and wouldn't guide them, rather harass them. Other TAs did th and actually provided some helpful instructions (Harshita and Angus).
- He was helpful
- some were very helpful, others simply claimed "you should know this if you watched the videos" or "try google" before given any dece

Please comment on how effective the teaching assistants(s) were in helping you meet the learning outcomes of the course. -

themselves

- n/a
- Sometimes they teach well but sometimes not
- One teaching assistant, Evan Walley, was very rude and insulting to me and other students. However, other TA's tried their best to he students, even though they got the information the day of.
- Some TA's were not helpful. In the sense that they didn't understand much about activities, or talked to one group the entire class.
- terrible
- Great to get help from and insight
- The teachers assistants were helpful and were interested in the topics they were trying to teach. Some of them were not as knowledg they should have been, but that may have been unavoidable due to the nature of the course.
- Sometimes the teacher assistants didn't know much about the activity in class so it was not useful asking them for help. However, for general questions about the course and syllabus related concerns, they were very helpful.
- 10/10 recommend Kyle S. & Liam Gensel they were awesome staff! So lucky to have met both of them! Evan however needs to stop kids because he is a year younger than us.
- The TA's were really hit or miss. In this seminar there were a lot of TA's so obviously some were good and actually helpful while other stood with other TA's and talked and would only come up to my group to check us out.
- There were a handful that knew a lot and the rest had a brief understanding of all the topic.
- pretty good
- Did a great job at getting the information out to the class. Made it a very fun and enjoyable experience.
- Very effective. They would walk around in the activity sessions and help out.
- Sometimes the TA's were little help and sometimes they helped a lot. I feel they needed to grasp the material more before presenting first.
- Very friendly and helpful
- They ran the class, but never actually taught anything. They acted as monitors to see if students were on task or distracted.
- We discussed about the internet. She was cool. I learned a lot about the field and major from her.
- They had no problem explaining challenging material in an understanding way.
- The TA's were good at helping meet the outcomes but were poorly organized in general. There were some TA's who were really invo were good with their jobs while others seemed to be hands off and unwilling to help.
- Many of the TAs during "class" were hardly educated on the activity prior to trying to teach it. When asked for help, many would give such as, "I have no idea," "nope!" or "yeah, we get these at the same time you guys do." The recitations were okay, but kind of suffer lack of course content.
- Very effective
- Good
- The TA helped me push my website when i was having multiple problems. They were knowledgeable and taught me the skills i neede reasons behind them.
- Very disorganized
- TAs do help sometimes, but most of the time your question gets pushed off to someone else to answer.
- They were very helpful.
- Happy to help when needed.
- They didn't know anything
- Andrew is a great guy. He was very fun to talk to. He would get in depth a little bit more about the content. I think that the recitation w fun to go to.

C
- TA's during activities were ok. They tell u too look up on internet.
- The teaching assistants did their very best. Some TAs were more enthusiastic than others which was helpful but I feel like majority of

Please comment on how effective the teaching assistants(s) were in helping you meet the learning outcomes of the course. -

had weren't much help to me. The TAs had to cover a wide array of students per class and most did not understand the activity like th
students. Towards the end of the semester they were less of TAs and more so just a group of friends standing in the middle of the roo
about their workloads.

- The teaching assistants gave me their full attention and made it their goal to help us with any problems we had.
- 2 outa 10
- Some were clueless while others knew what to do
- Answered any question that were thrown at them.
- The TA's were somewhat effective
- No too good
- In my opinion, the TAs did as ggod of a job as they could given the garbage leadership of Geoffrey. They didn't provide much aid in a
  because there wasn't much aid to give. Some activities didn't relate to the course at all and I don't blame the TAs for being unhelpful
  assignments that were quite pointless and just uterlly stupid.
- They were ok
- I didn't attend any recitations because I am a delinquent.
- The multiple ta helped greatly
- They were helpful in class
- During the classes, the TAs weren't very helpful at all. Most of my time was spent explaining my problem to them to the point where ju
  searching it on google would've been much more effective.
- could have done a better job
- They were always available and had an answer for your question
- Simply put, they where multiple time when they simply did not know the answers to course related questions, this was annoying but th
  problem from this was low moral, there were at least 3 separate incidents where my groupmates did not stay focused on the activity b
  the even the TA's don't know it, why should we even try".
- They were helpful with any problems which I had.
- Better than in the lectures
- Some T.As didn't properly know the materials they had to deal with.
- The teaching assistants were quite effective.
- They were eager to provide as much assistance as they were allowed
- Provided different evaluations and analysis' of material within activity sessions. Were moderately effective.
- good
- Some tas cared others did not
- N/A
- There certainly were a lot of them. All of them were very helpful in helping us build websites and do group activities.
- some TA's were good. some not so much TA Evan, Heeba and Liam were the good ones I had
- I think they were very useful because whenever I had trouble during class they would always help out.
- pretty good
- Most of them were ok I guess
- Recitations were boring and all they were was just a discussion on the activities. Should have dived deeper into each topic during rec
  instead of discussing it.
- Depends on the person
- Good
- some of the UTAs were really involved and helpful, and some of them didn't really do much for us
- They helped us reflect on what we learned in the videos for homework.
- They were pretty decent, but they dont give direct assistance.

Please comment on how effective the teaching assistants(s) were in helping you meet the learning outcomes of the course. -

- The teaching assistants always had the answers that I needed, and if they couldn't give me the answer directly they would guide me answer
- VQWEGWRTRMY,UY.IO/I;OP/IOUILYKTYRJEHWGEAFSCVDBFDNGMFH,UYI.UO'8;7O67I56U45Y34WTEQFWGEHREJTRYKTUI 'O8;9P786O7I56UERYHSGDFDGF,H.YI/UOIP 08[97P86O75I6U5EYRE
- The teaching assistants helped fill in the knowledge gaps between students and the activities we were required to attempt.
- Im sorry but They really weren't. Out of all the TAS that were there, I can only think of like 2 or 3 that actually helped. there were at le I've made comments about them already in past sections so yeah I dont think I have to repeat myself.
- They helped us to overcome any small software realted problems and made us work on our own to get through the entire activity.
- Some were really good at helping me better understand the material whereas other weren't as helpful at all.
- Some were good, others were terrible
- Unnecessary
- My TA was very good at answering questions and going over the material.
- They do nothing besides sign us out at the end of the class. They think they are better than us and I have had one of them literally tel obvious figure it out" when I asked for help. Not helpful at all.
- Good
- They were very nice and helpful always.
- • I have recieved little to no help. Instead, I have been told to look up the answet on google. Except for one guy. I didn't catch his nam knew how to use GitHub and actually sat down to help me, unlike the other assisstants. • They sometimes dont even know what is go Some of them are also unapproachable. One student, who was unfamiliar with the programming because it wasnt his major, asked a help, and she responded with, "it's obvious," and then went about her day instead of helping the student.

D
- The teaching assistants were the ones we were with most of the time and they were very effective in helping us through activities. Als questions pertaining to the videos were always fielded by the teaching assistants and were clearly explained.
- Teaching assistants always came to our help when needed. They would always make sure that everything was okay but still let you b independent which was greatly appreciated.
- They helped me out any time I needed a question
- They helped during the activities but sometimes they are unable to give hints
- Had a solution to people's problems more often than not and walked around/helped out where they could; no major complaints.
- The teaching assistants allowed for more personal interaction in the classroom and involved discourse about the subject than the pro alone could have given.
- good.
- One of the TA is too lazy. doesn't help. But most of the TAs are awesome!!!!!! Love them.
- They were helpful
- They were actually effective in helping out, in a way that was not confrontational, but genuine.
- They helped a lot during class activities
- They were sorta effective, not really much help to be honest...
- Very effective
- The TAs in the activity sections were helpful most of the times, but not in the recitation section.
- They were there almost right away if you needed help.
- Very helpful with any questions we had
- They seemed underprepared
- They helped overview all the students.
- He would let us asking questions and help us to achieve the project
- They were all good.
- The teaching assistants are very helpful when students got problems.

Please comment on how effective the teaching assistants(s) were in helping you meet the learning outcomes of the course. -

- We're all helpful but a little lost themselves sometiems
- They were kind and they always helped me
- effective
- Some were more effective than others in assisting during activities
- Some TAs were very helpful during assignment, others were not.
- Some TAs are ineffective. Because their answer to my question is always "ask google."
- Effective
- The ones that showed up were very helpful when you ended it
- When asked a question they would read off what was said in the google doc. Some did help at times.
- The TA's ran this course and office hours. They were the professors. Geoffrey didn't exist. TA's did a great job with the task given to t
- Very Ineffective
- My TA didn't know the point of recitations and we didn't do much. I've stopped going after the second time.
- Most of the time the TAs knew exactly how to answer a problem.
- the TAs during class were very helpful and they answered any questions the students had but TA's werent at recitation
- they showed you simple stuff but if you ask them any challenging questions, they say "just google it".
- He thoroughly explained most course material that was asked for
- The teaching assistants always knew what they were doing. They were also passionate about the internet.
- Recitations for this class are unnecessary.
- The teaching assistant was effective at helping us learn the course material.
- The ta's had good intentions, but recitation was a complete waste of time
- They were fine. Sometimes we would have a slow start, but other than that, they handled the class okay.
- Extremely effective, they added even more to the whole learning process by sharing their own knowledge

Please list your favorite in-class activity (one we should definitely keep) and your least-favorite activity (one we should definitely replace): -

D

- Favorite in-class activity: Anything to do with web development Least favorite activity: Video reviews
- Doing codecademy in class is one of the best activities mostly because it provides online resources for students to go through if they actually want to learn. The scavenger hunts were my most disliked activities coming to UB, because it was unrelated to the class, done in the rain, and was not really fun overall.
- picoCTF was cool.
- I found 95% of the activities meaningless and felt as though they were just thrown in in order to get some sort of material into the course
- Keep reviewing videos in class to lets us talk about it Take out the class activity on coding
- The Second-Life one.
- i personally am not a comp sci major so i didnt enjoy any activities
- Having people in groups and giving them activities to do.
- Writing the html for the personal website is the favorite. The scavenger hunt the first was my least favorite
- Playing games.
- the one with the games should not be removed. trying to figure out how an entire programming language works in one class should definitely be removed.
- Secondlife was the worst Keep github personal site
- I don't think I have a favorite, but there were certainly many activities that qualified for my least favorite.
- The ones where we played games haha. It was pointless but it was fun.
- Favorite: Playing second life. Least favorite: every single activity minus second life.
- Please replace Second Life..I didn't learn anything from it. I really enjoyed making the personal website and having class time to work on it for the final project.
- The coding one was my favorite where we use codeacademy I believe. My least favorite are the video review sessions as no one has ever had videos ready to be watched.
- The activity you should keep is the hacking game, and the one you should replace is the video dicussion
- Javascript
- The protocol assignment where we had to come up with our own: good The one computer game running around in a laggy world: bad
- Video review. Scavenger hunt outside
- the one with the marshmallows!
- Creating a website was my favorite. The virtual box ones should be replaced.
- Overall i really enjoyed all the activities.
- Java scripting, second life should not be in the class
- I pretty much liked all of them, but I especially liked codeCombat. It was a fun and easy way to learn to learn the basics to coding.
- Favorite was making the website, least favorite was the online mystery game (Waste of time)
- The favorite in-class activity is the video review. The least-favorite is the text and drive because most students are not reading or watching the activity.
- The best one was the coding game, where you had to code to play. My least favorite activity was using second life in class because it did not work for me
- Keep: web development activities Replace: texting and driving, video review sessions
- Marshmallows
- keep the groups lose the recitations
- The marshmallow activity, although too simple, was very helpful in understanding the structure of internet connections. You should definitely keep this. I didn't like the video review sessions because almost no one had their videos ready and people just worked on their laptops instead of actually looking at other people's videos and reviewing them.

Please list your favorite in-class activity (one we should definitely keep) and your least-favorite activity (one we should definitely replace): **-**

- Github, second life
- Favorite: Second life Least favorite: Github
- The marshmallow activity was the best one and I don't really have a least favorite.
- The game and finding hints.
- Keep: JavaScript game activity Replace: Second Life activity
- Keep: Fake Website. Replace: Online Scavenger Hunt
- I enjoyed the sorting/searching cards activity because it engaged the group and definitely facilitated teamwork and communication within the group. I disliked the Second Life activity, because it seemed irrelevant to the subject and had a lot of problems for only superficial reward (plus, it's nowhere near World of Warcraft).
- Keep the HTML activity (maybe make it a theme throughout the seminar) and maybe ditch the Second Life one (didn't really feel like attendance credit should of been taken, although it is fun to play games during class).
- Scavenger hunts
- group activites
- Favorite-git a personal website Least favorite- Javascript part II: Jquery and bootstrap
- My favourite activity would have been playing the life game in class one day
- I loved the texting and driving safety.
- My favorite activities were the ones pertaining to git and website building. I think those activities should definitely remain within the course. I didn't actually have a bad activity. They were all pretty interesting and helped me understand more about the internet.
- Favorite: Second Life Activity Least Favorite: IDK?...

Please list your favorite in-class activity (one we should definitely keep) and your least-favorite activity (one we should definitely replace). -

A
- The scavenger hunt from one of the earlier weeks was my favorite. My least favorite would be the Second Life activity. Completely irrelevant to the course.
- Some of the in-class activities were really fun, engaging and useful such as learning JavaScript etc, however we are not supervised that much so that we actually understand it.
- Coding game
- My favorite in class activity was the computer distribution model represented using cards. My least favorite activity was the RFC Protocol activity.
- The marshmallow one, and some activities need us to work on that using hands.
- Using GitHub was a fun activity. The online games we played seemed pointless like second life.
- I don't have a specific one that I liked the most.
- Any that has to do with Linux because Linux > Miceroshaft Winblows > Apple suckingtosh > everything else.
- The marshmallow activity
- The marshmallow one you should keep The second life one you should get rid of
- Bootstrap w/ website activity to keep. Second Life to replace.
- The hands on coding activities are my favorite and my least-favorite activities were the reviewing ones because everyone did not have a video and so we sat there twiddling our thumbs basically.
- The scavenger hunt using Linux was good, but to high pressure considering we only had an hour and very little Linux experience to work with. No exceptionally good sessions stand out to me.
- Keep: making a personal website Replace: the scavenger hunts
- Making a website.
- CTF
- My favorite in-class activity is work as group to finish the activity.
- I liked the activity with the cards. It was fun and interactive. We should lose anything virtualbox related.
- No comment
- Group activities should be kept but recitations should be replaced with lectures that we can actually learn something from
- The networking acitivy with marshmallows favorite . Not so good are the short boring activities that are irrelevant
- Replace the second life one. Keep the scavenger hunt type of activity.
- Personal website was my favorite. Second life, least favorite.
- KEEP-Internet Protocols REPLACE-Anything to do with internet speed.
- Online scavenger hunt, second life
- None
- Using marshmallows to show how certain things can connect to the internet.
- personal website 100%
- I really enjoyed the website design with Github Pages. It offered a great intro to website development as well as git and repo management.
- None
- I don't really remember much about it but the best one was the one where you would get through the assignment by getting clues and doing things on the internet. The worst one was the marshmellow one but just because it was very disorganized.
- Keep: all the activities relating to web site design, whether it was HTML, CSS, or Bootstrap Remove: change the format of the Javascript activity
- My favorite in-class activity was creating our own website, and the least favorite was playing the game called "Second-Life."
- Making a website was the best, if it could be taught a little better with better scaling in how the activity could be presented. The scavenger hunts were a waste of time.

Please list your favorite in-class activity (one we should definitely keep) and your least-favorite activity (one we should definitely replace). -

- Most of the activities that involved using linux where by far the best. Even if some didn't have the best instructions nor actually tought linux outright. However, almost every other one was a huge waste of time. Some where meant for children or just a waste of class time. Most of them I didn't have to watch the videos to understand them.

- Second Life was painful to do. Learning how to make a website was great.

- The activity where everyone had to go out and explore without the internet.

- favorite: none least favorite: all

- marshmellows

- Liked: html replace: second life

- keep- marshmallow one replace- reviewing videos

- Favorite : Playing half life Least favorite : Marshmellow diagrams

- I don't have an answer for you on that. Cause I can't remember one that was good at all. I know that sounds bad, but I don't have a specific one that really stands out and is a shining beacon of goodness. Except maybe the activities which had you running around without the use of internet or the one of trying to find specific things relating to the internet on campus. Yeah, scratch what I said earlier, those were actually pretty good. Keep that. As for ones worth replacing... JavaScript, with the web site and in general. Did literally nothing those days cause I couldn't make it work at all. Second Life. LITERALLY COULD NOT DO A SINGLE FUCKING THING BECAUSE I WAS HONEST AND SAID I WAS 17. FUCK. THAT. And when they said to try to do something else, relevant to the course or otherwise…I COULDN'T BECAUSE I WAS UNABLE TO CONNECT TO ANYTHING CAUSE THE INTERNET WAS SO SHIT.

- Keep the one with the marshmallows and straws to represent servers and connections. Drop the one with using the appliance console to access data(?).

- 'Scavenger hunts' through the command line was fun. The second life game was pointless and irrelevant to everything about the course. We were forced to play a video game?

- Favorite: creating the website Least favorite: understanding java

- Favorite - git usage Least-favorite - playing a dumb video game in class

- Favorite: the marshmallows, the only likable one that was very entertaining Least Favorite: SECOND LIFE!

- Web design & atom

- My favorite in class activity was the Marshmallow lab and I think that you should definitely keep this one.

- Javascript Game Playing is most favorite. The RPG Game Playing is least favorite.

- Marshmallow activity, deck of cards activity

- I enjoyed the more hands on activities like the sorting with the deck of cards activity and hated almost anything involving virtual box because it gave me so many problems.

- Best - texting and driving Worst - How to avoid the internet (something like that)

- creating a person website on github

- Keep the marshmallow one and any others that involve food. Remove website building at all costs, Carl Alphonse gives me enough to worry about

- best: going outside and looking for the internet related stuff : best understanding cause i had to move and participate worst: making website : needed more explanation i guess. In my case, i did exactly same and it didnt work, and others TAs did not know the reason

- favourite: the one with the marshmallows and the one with the playing cards. least-favorite: the outdoor activities.

- Favorite: Second-life Game Least: Don't really have one

- website replace that worthless second life garbage game cancerous toxic

- One of my favorite activities was Activity 19 b/c the URL sites that were given in that activity were actually fun to play and learn. One of my least favorite activities was Activity 21 b/c just like some of my other least favorite activities, I felt as if I didn't get to learn anything from doing the activity either b/c the activity itself was too boring or too confusing to understand.

- all activities were good

Please list your favorite in-class activity (one we should definitely keep) and your least-favorite activity (one we should definitely replace). -

- The basic html ones were cool. Opened a lot of windows. The one with that terrible game on the islands of hell
- Easter Egg Hunt, ctf2016
- Favorite was learning how to use linux
- Favorite: Creating a Website Least Favorite: Secondlife

Please list your favorite in-class activity (one we should definitely keep) and your least-favorite activity (one we should definitely replace): -

B

- My favourite activity was the game used to teach java. And my least favourite was that game we were made to play in which we have to walk in the city.
- My favorite activity was probably the one with where we learned sorting. It was fun and easy to understand. I did not like the activities where we used virtual box and the terminal to run code.
- Card activity you should keep
- I liked making the website on github. I didn't like the second life activity
- Favorite: Creating a website Least favorite: The activity where we played afterlife
- My favorite was the mobile optimization one, my least favorite was the "hacking" one, going from website to website looking for passwords
- Marshmallows
- keep: Git a website. replace: bandwith and latency
- Replace Evan as a TA
- Most favorite: website Least favorite: The game we downloaded
- All of the activities that didn't *require* a computer were actually pretty fun. Please get rid of the Second Life activity. It's objectively an awful game.
- Marshmallow activity was good. Second Life was bad.
- Favorite: Making our own websites. Least-favorite: Don't know
- My favorite in-class activity was learning HTML and CSS and building our personal websites. My least favorite in-class activity was when we played Second-Life.
- You should keep making the personal website. Scrap the one with the marshmallow routing that was crazy.
- trying the mmo was fun anything with a server that crashed was less than desirable though
- Activity on creating a personal website-favorite. Scavenger hunt activities were poor.
- Least favorite: marshmallow connections or playing second life. Favorite: n/a
- Keep: Online scavenger hunt
- One to get rid of should be the second life activity. It was filled with too much lag, and bugs. One to keep is the online video submissions. Those are fun to make.
- keep the marshmellow one, get rid of the card game one
- Favorite: Learning git functions Least: Texting and driving
- I liked the marshmallow one showing different hops, the Second-Life one was terrible.
- One that should definitely be kept is creating a git-hub website. One that should be removed is the card-counting activity.
- Personal Website, Deck of cards
- Keep: JavaScript and JQuery. Replace: the texting and driving one.
- Keep: Not sure. Remove: Second Life
- My favorite activity was the one where it was a scavenger hunt, that was challenging and fun. My least favorite activity is the activities where you go over video submissions, most people do nothing because they do not have anything. Also, please have an activity where you teach the class how to use the command line. That is a must.
- java script game
- none were good
- Favorite: Teaching the risk of driving with alcohol. Least: none
- Treasure hunt.
- Favorite: Reviewing videos we mad with each other Least-Favorite: Scavenger Hunt
- My favorite activity was making a website, and my least favorite activity was the sort and shuffle with cards.
- The activity connecting servers and routers using marshmallows and toothpicks. Gave a good understanding of how these things are connecting

Please list your favorite in-class activity (one we should definitely keep) and your least-favorite activity (one we should definitely replace): -

- I enjoyed learning html and css, but the marshmallow activity didn't really help me other than to visualize routing physically.
- My favorite: The marshmallow activity My least-favorite: SecondLife Activity
- Sorting activities with the cards, and making fake news articles were my favorite activities. My least favorite activities were: Second Life, and ping tracking.
- The idea of building a website was really cool, and the activities made sense. Get rid of the second-life activity, it did nothing good.
- Web development with github Replace marshmellow networks
- Keep GitHub Designing website Replace the marshmallow activity
- My favorite activity was the github scavenger hunt, and my least favorite was the marshmallow one.
- Best: website Worst: everything ubunto
- the hands on activities we did during class
- Favorite was the one with cards and processing least favorite was secone life
- Definitely replace the scavenger hunt online and keep the intro activities
- Anything that teaches a real practical skill. Like building a website or something. Get rid of anything with that stupid terminal stuff. Its going to be 2017 soon teach me how to build a chrome plugin or something
- Favorite: Marshmallow networking activity. Replace: Second life game activity.
- Anything with the games was entertaining. Coding.
- Second Life. Marshmellow activity.
- The marshmallow connectivity one was my favorite
- One activity I would keep is the CodeAcademy activity as it was helpful in many ways with learning HTML. One activity I would get rid of was the routing table activity, that was rough.
- The scavanger hunt
- Building a website, not sure
- Favorite: Second Life Least: Dont have ond
- I particularly enjoyed the online scavenger hunt activity, using a number of different increasingly difficult communications protocols. I did not enjoy the first campus scavenger hunt, though this problem may be compounded by the fact I had suffered a knee injury a few days before.
- I think the one where you hack into an electronic lock was really cool and interesting, however the marshmallow thing needs a bit of work (it's kind of gross).
- dont keep any, replace them all
- My favorite activity was the creation of my own website and my least favorite was the routing one.
- My Favorite Activities were the marshmallow connections one and the url easter egg hunt. My least favorite activities were those involving command line and linux because the instructions were not very clear and confusing.
- Get rid of the second life activity, it was useless
- The virtual world game was pretty fun.
- One activity that should definitely be kept is the online coding game, where we have to type code in order to move the character to collect gems. My least favorite activity is "Bad Ads."
- Favorite was the marshmallow activity. Worst was the Second Life activity.
- no activities were good
- Playing that online coding game was fun and effective. The activity where you have to walk around campus to look whats related to the internet should be replaced in my opinion.

Please list your favorite in-class activity (one we should definitely keep) and your least-favorite activity (one we should definitely replace): -

C

- Marshmallow links was my favorite. Least favorite was the video review sessions. Those were a waste of time in my opinion.
- This entire course was awful just get rid of it.
- Website building was definitely my favorite, but it needs major improvements. I dont even know which lesson(s) you should get rid of, because they were so poorly written and vague, I wasnt even sure what were supposed to do half the time.
- I dont really know ..
- None really stood out to me that I would call my favorite, but Second Life could probably go.
- Replace the second life activity. Keep the texting and driving activity
- Favorite Activity: Java Coding lessons (Castle-like game and CodeAcademy) Worst Activity: The one about hacking that gave us multiple options to choose from because the servers for the original website to be used crashed when we tried to use it.
- You should keep the marshmellow- fiber optic one- that I actually enjoyed AND learned stuff from. And, I think you should get rid of the activity that we couldnt do because the website crashed. I for get what its called, but it was some like rpg thing from 2011 or 2012, and everyone going to the site at once crashed it.
- Definitely keep git A Personal Website (Part I and II). Replace or adjust the activity that ended with sending an email using the command line. It's useful information, but a little too dense for the beginning of a course.
- The marshmallow activity was the best and the driving while texting should be replaced because everyone already hears that enough.
- Undecided
- My favorite in-class activity were the two activities where we were learning about JavaScript. My least favorite was the one where we tooled around with ad blockers
- Making a website was fun but very confusing (replace) and playing the virtual games was pretty fun.
- My favorite in class activity was the scavenger hunt around campus to help us get used to the university.
- Favorite: github website Least Favorite: texting and driving
- Its very hard to pick my favorite activity as there were very few that were even slightly though provoking at all. I guess the scavenger hunts in the beginning were useful for showing freshmen around the campus and should be kept. Its also extremely difficult to choose my least favorite activity as most of the activities were completely random and had little to no actual means of teaching the student anything except how to google the answers. (A method we had all learned by middle school.) If i had to choose one in particular it would be the one activity where the website jad actually crashed because of all the student traffic. We ended up creating a LinkedIn page which would've been better if it was the actual assignment. Just the lack of planning and organization is what showed how poorly the professor interacted with the TAs and the students.
- Favorite: marshmallow networks Least favorite: second life game
- Keep: Scavenger hunt with different kinds of protocols Replace: Second-Life (real waste of time)
- None for either
- the encryption one(keep) second life (replace)
- Favorite: Video content. Least Favorite: Recitations. Literally nothing happens in them.
- naming
- My favorite one can be the playing games on computer like SecondLife. My least-favorite one is which tell us to find something in code or terminator.
- Traceroute was my favorite.
- marshmallow was good cards was good
- I liked the activity where we had to play the game "Second Life" because that was really entertaining. I think you should get rid of the creating your own website because it's very challenging and hard to do.
- Keep the web building Never do the Newlife or fakelife activity again
- Playing with the cards.
- activities
- I enjoyed the activities when we fussy started making our websites bc I learned alot about html and css. However many of the

Please list your favorite in-class activity (one we should definitely keep) and your least-favorite activity (one we should definitely replace): **-**

activities did not make much sense. Such as the second life activity and also a few activities just didn't work like the capture the flag one.

- Favorite: building a website, Replace: capture the flag
- The Second Life was easily the best activity and the worst were the scavanger hunts.
- favorite activity: cloning and altering a website least favorite: watch videos to discourage drinking and driving.
- Favorite: Building networks using marshmallows and straws. Least Favorite: Bad Ads.
- Making a website
- My favorite was the series on HTML because it helped for a project in another class. My least favorite was Second Life, partly because it didn't work and partly because I don't see what it was supposed to teach.
- working on the website ones you shuld keep, drop the second life one
- keep the clone site one and replace some terminal related activites
- Favorite: I really liked the capture the flag activity, but sadly I didn't get to play very much of it before our class crashed the servers. Least Favorite: I didn't like the class activities that were just going over our videos if we had them done because no one in any of my groups ever had their videos done at that time and I think it is a similar case for many of the other groups too. I think it was mostly a wasted class day.
- The washmellow one was pretty dope. The one with going outside was terrible
- Marshmellow
- There were no good activities
- Some of the activities felt a little pointless compared to the others. Keep most of the hard activities because they force you to learn a lot, but cut out the short easy ones because the topic of the class is very interesting, so going in depth is better.
- The online scavenger hunt should be kept Less video submission review
- The marshmallow one was great, every other one needed some more work.
- The games on websites given in emails were my favorite activity
- favorite: creating a website least-favorite: second life game
- I cannot think of one activity or another to keep or replace
- Texting while driving, every lab recitation
- The scavenger hunt was really good and I'm neutral on picking a least-favorite activity.
- making a website on github
- The 2rd the fifth
- N/A
- The activity where we used different methods to get to the end result of a picture of a cat I actually found very enjoyable (I think it was called webhunt or something). Least favorite would have been towards the start of the semester when we started using the terminal, I had no idea what to do and fell behind there since I got a group that didn't communicate.
- Best in class activity was exploring the internet without using a real identity (though, it would be highly preferable to use Runescape instead of Second Life). Least favorite activity would have to be Capture the Flag.
- The cipher text and plain text activity (alice and bob).
- Marsh mellow to show the networks.